
python-gitlab Documentation

Release 4.4.0

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`python-gitlab` is a Python package providing access to the GitLab server API.

It supports the v4 API of GitLab, and provides a CLI tool (`gitlab`).

**CHAPTER
ONE**

FEATURES

`python-gitlab` enables you to:

- write Pythonic code to manage your GitLab resources.
- pass arbitrary parameters to the GitLab API. Simply follow GitLab's docs on what parameters are available.
- access arbitrary endpoints as soon as they are available on GitLab, by using lower-level API methods.
- use persistent requests sessions for authentication, proxy and certificate handling.
- handle smart retries on network and server errors, with rate-limit handling.
- flexible handling of paginated responses, including lazy iterators.
- automatically URL-encode paths and parameters where needed.
- automatically convert some complex data structures to API attribute types
- merge configuration from config files, environment variables and arguments.

**CHAPTER
TWO**

INSTALLATION

As of 4.0.0, `python-gitlab` is compatible with Python 3.8+.

Use pip to install the latest stable version of `python-gitlab`:

```
$ pip install --upgrade python-gitlab
```

The current development version is available on both [GitHub.com](#) and [GitLab.com](#), and can be installed directly from the git repository:

```
$ pip install git+https://github.com/python-gitlab/python-gitlab.git
```

From GitLab:

```
$ pip install git+https://gitlab.com/python-gitlab/python-gitlab.git
```


USING THE DOCKER IMAGES

python-gitlab provides Docker images in two flavors, based on the Alpine and Debian slim python base images. The default tag is alpine, but you can explicitly use the alias (see below).

The alpine image is smaller, but you may want to use the Debian-based slim tag (currently based on -slim-bullseye) if you are running into issues or need a more complete environment with a bash shell, such as in CI jobs.

The images are published on the GitLab registry, for example:

- `registry.gitlab.com/python-gitlab/python-gitlab:latest` (latest, alpine alias)
- `registry.gitlab.com/python-gitlab/python-gitlab:alpine` (latest alpine)
- `registry.gitlab.com/python-gitlab/python-gitlab:slim-bullseye` (latest slim-bullseye)
- `registry.gitlab.com/python-gitlab/python-gitlab:v3.2.0` (alpine alias)
- `registry.gitlab.com/python-gitlab/python-gitlab:v3.2.0-alpine`
- `registry.gitlab.com/python-gitlab/python-gitlab:v3.2.0-slim-bullseye`

You can run the Docker image directly from the GitLab registry:

```
$ docker run -it --rm registry.gitlab.com/python-gitlab/python-gitlab:latest <command> ...  
→ .
```

For example, to get a project on GitLab.com (without authentication):

```
$ docker run -it --rm registry.gitlab.com/python-gitlab/python-gitlab:latest project get...  
→ --id gitlab-org/gitlab
```

You can also mount your own config file:

```
$ docker run -it --rm -v /path/to/python-gitlab.cfg:/etc/python-gitlab.cfg registry...  
→ gitlab.com/python-gitlab/python-gitlab:latest <command> ...
```

3.1 Usage inside GitLab CI

If you want to use the Docker image directly inside your GitLab CI as an image, you will need to override the `entrypoint`, as noted in the official GitLab documentation:

```
Job Name:  
image:  
  name: registry.gitlab.com/python-gitlab/python-gitlab:latest
```

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```
entrypoint: []
before_script:
  gitlab --version
script:
  gitlab <command>
```

3.2 Building the image

To build your own image from this repository, run:

```
$ docker build -t python-gitlab:latest .
```

Run your own image:

```
$ docker run -it --rm python-gitlab:latest <command> ...
```

Build a Debian slim-based image:

```
$ docker build -t python-gitlab:latest --build-arg PYTHON_FLAVOR=slim-bullseye .
```

**CHAPTER
FOUR**

BUG REPORTS

Please report bugs and feature requests at <https://github.com/python-gitlab/python-gitlab/issues>.

**CHAPTER
FIVE**

GITTER COMMUNITY CHAT

We have a [gitter](#) community chat available at <https://gitter.im/python-gitlab/Lobby>, which you can also directly access via the Open Chat button below.

If you have a simple question, the community might be able to help already, without you opening an issue. If you regularly use python-gitlab, we also encourage you to join and participate. You might discover new ideas and use cases yourself!

**CHAPTER
SIX**

DOCUMENTATION

The full documentation for CLI and API is available on [readthedocs](#).

6.1 Build the docs

We use `tox` to manage our environment and build the documentation:

```
pip install tox
tox -e docs
```


CONTRIBUTING

For guidelines for contributing to `python-gitlab`, refer to [CONTRIBUTING.rst](#).

7.1 Getting started with the CLI

`python-gitlab` provides a `gitlab` command-line tool to interact with GitLab servers.

This is especially convenient for running quick ad-hoc commands locally, easily interacting with the API inside GitLab CI, or with more advanced shell scripting when integrating with other tooling.

7.1.1 Configuration

`gitlab` allows setting configuration options via command-line arguments, environment variables, and configuration files.

For a complete list of global CLI options and their environment variable equivalents, see [*CLI reference \(gitlab command\)*](#).

With no configuration provided, `gitlab` will default to unauthenticated requests against [GitLab.com](#).

With no configuration but running inside a GitLab CI job, it will default to authenticated requests using the current job token against the current instance (via `CI_SERVER_URL` and `CI_JOB_TOKEN` environment variables).

Warning: Please note the job token has very limited permissions and can only be used with certain endpoints. You may need to provide a personal access token instead.

When you provide configuration, values are evaluated with the following precedence:

1. Explicitly provided CLI arguments,
2. Environment variables,
3. Configuration files:
 - a. explicitly defined config files:
 - i. via the `--config-file` CLI argument,
 - ii. via the `PYTHON_GITLAB_CFG` environment variable,
 - b. user-specific config file,
 - c. system-level config file,
4. Environment variables always present in CI (`CI_SERVER_URL`, `CI_JOB_TOKEN`).

Additionally, authentication will take the following precedence when multiple options or environment variables are present:

1. Private token,
2. OAuth token,
3. CI job token.

Configuration files

`gitlab` looks up 3 configuration files by default:

The `PYTHON_GITLAB_CFG` environment variable

An environment variable that contains the path to a configuration file.

`/etc/python-gitlab.cfg`

System-wide configuration file

`~/.python-gitlab.cfg`

User configuration file

You can use a different configuration file with the `--config-file` option.

Warning: If the `PYTHON_GITLAB_CFG` environment variable is defined and the target file exists, it will be the only configuration file parsed by `gitlab`.

If the environment variable is defined and the target file cannot be accessed, `gitlab` will fail explicitly.

Configuration file format

The configuration file uses the INI format. It contains at least a `[global]` section, and a specific section for each GitLab server. For example:

```
[global]
default = somewhere
ssl_verify = true
timeout = 5

[somewhere]
url = https://some.whe.re
private_token = vTbFeqJCY3sibBP7BZM
api_version = 4

[elsewhere]
url = http://else.whe.re:8080
private_token = helper: path/to/helper.sh
timeout = 1
```

The `default` option of the `[global]` section defines the GitLab server to use if no server is explicitly specified with the `--gitlab` CLI option.

The `[global]` section also defines the values for the default connection parameters. You can override the values in each GitLab server section.

Table 1: Global options

Option	Possible values	Description
ssl_verify	True, False, or a str	Verify the SSL certificate. Set to False to disable verification, though this will create warnings. Any other value is interpreted as path to a CA_BUNDLE file or directory with certificates of trusted CAs.
timeout	Integer	Number of seconds to wait for an answer before failing.
api_version	4	The API version to use to make queries. Only 4 is available since 1.5.0.
per_page	Integer between 1 and 100	The number of items to return in listing queries. GitLab limits the value at 100.
user_agent	str	A string defining a custom user agent to use when gitlab makes requests.

You must define the `url` in each GitLab server section.

Warning: Note that a url that results in 301/302 redirects will raise an error, so it is highly recommended to use the final destination in the `url` field. For example, if the GitLab server you are using redirects requests from http to https, make sure to use the `https://` protocol in the URL definition.

A URL that redirects using 301/302 (rather than 307/308) will most likely cause malformed POST and PUT requests. python-gitlab will therefore raise a `RedirectionError` when it encounters a redirect which it believes will cause such an error, to avoid confusion between successful GET and failing POST/PUT requests on the same instance.

Only one of `private_token`, `oauth_token` or `job_token` should be defined. If neither are defined an anonymous request will be sent to the Gitlab server, with very limited permissions.

We recommend that you use [Credential helpers](#) to securely store your tokens.

Table 2: GitLab server options

Option	Description
url	URL for the GitLab server. Do NOT use a URL which redirects.
private_token	Your user token. Login/password is not supported. Refer to the official documentation to learn how to obtain a token.
oauth_token	An Oauth token for authentication. The Gitlab server must be configured to support this authentication method.
job_token	Your job token. See the official documentation to learn how to obtain a token.
api_version	GitLab API version to use. Only 4 is available since 1.5.0.

Credential helpers

For all configuration options that contain secrets (for example, `personal_token`, `oauth_token`, `job_token`), you can specify a helper program to retrieve the secret indicated by a `helper:` prefix. This allows you to fetch values from a local keyring store or cloud-hosted vaults such as Bitwarden. Environment variables are expanded if they exist and `~` expands to your home directory.

It is expected that the helper program prints the secret to standard output. To use shell features such as piping to retrieve the value, you will need to use a wrapper script; see below.

Example for a `keyring` helper:

```
[global]
default = somewhere
ssl_verify = true
timeout = 5

[somewhere]
url = http://somewhe.re
private_token = helper: keyring get Service Username
timeout = 1
```

Example for a `pass` helper with a wrapper script:

```
[global]
default = somewhere
ssl_verify = true
timeout = 5

[somewhere]
url = http://somewhe.re
private_token = helper: /path/to/helper.sh
timeout = 1
```

In `/path/to/helper.sh`:

```
#!/bin/bash
pass show path/to/credentials | head -n 1
```

7.1.2 CLI

Objects and actions

The `gitlab` command expects two mandatory arguments. The first one is the type of object that you want to manipulate. The second is the action that you want to perform. For example:

```
$ gitlab project list
```

Use the `--help` option to list the available object types and actions:

```
$ gitlab --help
$ gitlab project --help
```

Some actions require additional parameters. Use the `--help` option to list mandatory and optional arguments for an action:

```
$ gitlab project create --help
```

Optional arguments

Use the following optional arguments to change the behavior of `gitlab`. These options must be defined before the mandatory arguments.

`--verbose, -v`

Outputs detail about retrieved objects. Available for legacy (default) output only.

`--config-file, -c`

Path to a configuration file.

`--gitlab, -g`

ID of a GitLab server defined in the configuration file.

`--output, -o`

Output format. Defaults to a custom format. Can also be `yaml` or `json`.

Important: The [PyYAML package](#) is required to use the `yaml` output option. You need to install it explicitly using `pip install python-gitlab[yaml]`

`--fields, -f`

Comma-separated list of fields to display (`yaml` and `json` output formats only). If not used, all the object fields are displayed.

Example:

```
$ gitlab -o yaml -f id,permissions -g elsewhere -c /tmp/gl.cfg project list
```

Reading values from files

You can make `gitlab` read values from files instead of providing them on the command line. This is handy for values containing new lines for instance:

```
$ cat > /tmp/description << EOF
This is the description of my project.

It is obviously the best project around
EOF
$ gitlab project create --name SuperProject --description @/tmp/description
```

If you want to explicitly pass an argument starting with `@`, you can escape it using `@@`:

```
$ gitlab project-tag list --project-id somenamespace/myproject
...
name: @at-started-tag
...
$ gitlab project-tag delete --project-id somenamespace/myproject --name '@@at-started-tag'
```

7.1.3 Enabling shell autocompletion

To get autocompletion, you'll need to install the package with the extra "autocompletion":

```
pip install python_gitlab[autocompletion]
```

Add the appropriate command below to your shell's config file so that it is run on startup. You will likely have to restart or re-login for the autocompletion to start working.

Bash

```
eval "$(register-python-argcomplete gitlab)"
```

tcsh

```
eval `register-python-argcomplete --shell tcsh gitlab`
```

fish

```
register-python-argcomplete --shell fish gitlab | .
```

Zsh

Warning: Zsh autocompletion support is broken right now in the argcomplete python package. Perhaps it will be fixed in a future release of argcomplete at which point the following instructions will enable autocompletion in zsh.

To activate completions for zsh you need to have bashcompinit enabled in zsh:

```
autoload -U bashcompinit  
bashcompinit
```

Afterwards you can enable completion for gitlab:

```
eval "$(register-python-argcomplete gitlab)"
```

7.2 Getting started with the API

python-gitlab only supports GitLab API v4.

7.2.1 gitlab.Gitlab class

To connect to GitLab.com or another GitLab instance, create a `gitlab.Gitlab` object:

Hint: You can use different types of tokens for authenticated requests against the GitLab API. You will most likely want to use a resource (project/group) access token or a personal access token.

For the full list of available options and how to obtain these tokens, please see <https://docs.gitlab.com/ee/api/index.html#authentication>.

```
import gitlab

# anonymous read-only access for public resources (GitLab.com)
gl = gitlab.Gitlab()

# anonymous read-only access for public resources (self-hosted GitLab instance)
gl = gitlab.Gitlab('https://gitlab.example.com')

# private token or personal token authentication (GitLab.com)
gl = gitlab.Gitlab(private_token='JVNSEs8EwWRx5yDxM5q')

# private token or personal token authentication (self-hosted GitLab instance)
gl = gitlab.Gitlab(url='https://gitlab.example.com', private_token='JVNSEs8EwWRx5yDxM5q
                   ')

# oauth token authentication
gl = gitlab.Gitlab('https://gitlab.example.com', oauth_token='my_long_token_here')

# job token authentication (to be used in CI)
# bear in mind the limitations of the API endpoints it supports:
# https://docs.gitlab.com/ee/ci/jobs/ci_job_token.html
import os
gl = gitlab.Gitlab('https://gitlab.example.com', job_token=os.environ['CI_JOB_TOKEN'])

# Define your own custom user agent for requests
gl = gitlab.Gitlab('https://gitlab.example.com', user_agent='my-package/1.0.0')

# make an API request to create the gl.user object. This is not required but may be_
# useful
# to validate your token authentication. Note that this will not work with job tokens.
gl.auth()

# Enable "debug" mode. This can be useful when trying to determine what
# information is being sent back and forth to the GitLab server.
# Note: this will cause credentials and other potentially sensitive
# information to be printed to the terminal.
gl.enable_debug()
```

You can also use configuration files to create `gitlab.Gitlab` objects:

```
gl = gitlab.Gitlab.from_config('somewhere', ['/tmp/gl.cfg'])
```

See the [Configuration](#) section for more information about configuration files.

Warning: Note that a url that results in 301/302 redirects will raise an error, so it is highly recommended to use the final destination in the `url` field. For example, if the GitLab server you are using redirects requests from http to https, make sure to use the `https://` protocol in the URL definition.

A URL that redirects using 301/302 (rather than 307/308) will most likely cause malformed POST and PUT requests.

`python-gitlab` will therefore raise a `RedirectionError` when it encounters a redirect which it believes will cause such an error, to avoid confusion between successful GET and failing POST/PUT requests on the same instance.

Note on password authentication

GitLab has long removed password-based basic authentication. You can currently still use the [resource owner password credentials](#) flow to obtain an OAuth token.

However, we do not recommend this as it will not work with 2FA enabled, and GitLab is removing ROPC-based flows without client IDs in a future release. We recommend you obtain tokens for automated workflows as linked above or obtain a session cookie from your browser.

For a python example of password authentication using the ROPC-based OAuth2 flow, see [this Ansible snippet](#).

7.2.2 Managers

The `gitlab.Gitlab` class provides managers to access the GitLab resources. Each manager provides a set of methods to act on the resources. The available methods depend on the resource type.

Examples:

```
# list all the projects
projects = gl.projects.list(iterator=True)
for project in projects:
    print(project)

# get the group with id == 2
group = gl.groups.get(2)
for project in group.projects.list(iterator=True):
    print(project)
```

Warning: Calling `list()` without any arguments will by default not return the complete list of items. Use either the `get_all=True` or `iterator=True` parameters to get all the items when using listing methods. See the [Pagination](#) section for more information.

```
# create a new user
user_data = {'email': 'jen@foo.com', 'username': 'jen', 'name': 'Jen'}
user = gl.users.create(user_data)
print(user)
```

Note: `python-gitlab` attempts to sync the required, optional, and mutually exclusive attributes for resource creation and update with the upstream API.

You are encouraged to follow upstream API documentation for each resource to find these - each resource documented here links to the corresponding upstream resource documentation at the top of the page.

The attributes of objects are defined upon object creation, and depend on the GitLab API itself. To list the available information associated with an object use the `attributes` attribute:

```
project = gl.projects.get(1)
print(project.attributes)
```

Some objects also provide managers to access related GitLab resources:

```
# list the issues for a project
project = gl.projects.get(1)
issues = project.issues.list(get_all=True)
```

python-gitlab allows to send any data to the GitLab server when making queries. In case of invalid or missing arguments python-gitlab will raise an exception with the GitLab server error message:

```
>>> gl.projects.list(sort='invalid value')
...
GitlabListError: 400: sort does not have a valid value
```

7.2.3 Conflicting Parameters

You can use the `query_parameters` argument to send arguments that would conflict with python or python-gitlab when using them as kwargs:

```
gl.user_activities.list(from='2019-01-01', iterator=True) ## invalid

gl.user_activities.list(query_parameters={'from': '2019-01-01'}, iterator=True) # OK
```

7.2.4 Gitlab Objects

You can update or delete a remote object when it exists locally:

```
# update the attributes of a resource
project = gl.projects.get(1)
project.wall_enabled = False
# don't forget to apply your changes on the server:
project.save()

# delete the resource
project.delete()
```

Some classes provide additional methods, allowing more actions on the GitLab resources. For example:

```
# star a git repository
project = gl.projects.get(1)
project.star()
```

You can print a Gitlab Object. For example:

```
project = gl.projects.get(1)
print(project)

# Or in a prettier format.
project pprint()

# Or explicitly via ``pformat()``. This is equivalent to the above.
print(project.pformat())
```

You can also extend the object if the parameter isn't explicitly listed. For example, if you want to update a field that has been newly introduced to the Gitlab API, setting the value on the object is accepted:

```
issues = project.issues.list(state='opened')
for issue in issues:
    issue.my_super_awesome_feature_flag = "random_value"
    issue.save()
```

As a dictionary

You can get a dictionary representation copy of the Gitlab Object. Modifications made to the dictionary will have no impact on the GitLab Object.

- `asdict()` method. Returns a dictionary representation of the Gitlab object.
- **attributes property. Returns a dictionary representation of the Gitlab object.** Also returns any relevant parent object attributes.

```
project = gl.projects.get(1)
project_dict = project.asdict()

# Or a dictionary representation also containing some of the parent attributes
issue = project.issues.get(1)
attribute_dict = issue.attributes

# The following will return the same value
title = issue.title
title = issue.attributes["title"]
```

Hint: This can be used to access attributes that clash with python-gitlab's own methods or managers. Note that:

`attributes` returns the parent object attributes that are defined in `object._from_parent_attrs`. For example, a `ProjectIssue` object will have a `project_id` key in the dictionary returned from `attributes` but `asdict()` will not.

As JSON

You can get a JSON string representation of the Gitlab Object. For example:

```
project = gl.projects.get(1)
print(project.to_json())
# Use arguments supported by ``json.dump()``
print(project.to_json(sort_keys=True, indent=4))
```

7.2.5 Base types

The `gitlab` package provides some base types.

- `gitlab.Gitlab` is the primary class, handling the HTTP requests. It holds the GitLab URL and authentication information.
- `gitlab.base.RESTObject` is the base class for all the GitLab v4 objects. These objects provide an abstraction for GitLab resources (projects, groups, and so on).
- `gitlab.base.RESTManager` is the base class for v4 objects managers, providing the API to manipulate the resources and their attributes.

7.2.6 Lazy objects

To avoid useless API calls to the server you can create lazy objects. These objects are created locally using a known ID, and give access to other managers and methods.

The following example will only make one API call to the GitLab server to star a project (the previous example used 2 API calls):

```
# star a git repository
project = gl.projects.get(1, lazy=True)  # no API call
project.star()  # API call
```

7.2.7 head() methods

All endpoints that support `get()` and `list()` also support a `head()` method. In this case, the server responds only with headers and not the response JSON or body. This allows more efficient API calls, such as checking repository file size without fetching its content.

Note: In some cases, GitLab may omit specific headers. See more in the [Pagination](#) section.

```
# See total number of personal access tokens for current user
gl.personal_access_tokens.head()
print(headers["X-Total"])

# See returned content-type for project GET endpoint
headers = gl.projects.head("gitlab-org/gitlab")
print(headers["Content-Type"])
```

7.2.8 Pagination

You can use pagination to iterate over long lists. All the Gitlab objects listing methods support the `page` and `per_page` parameters:

```
ten_first_groups = gl.groups.list(page=1, per_page=10)
```

Warning: The first page is page 1, not page 0.

By default GitLab does not return the complete list of items. Use the `get_all` parameter to get all the items when using listing methods:

```
all_groups = gl.groups.list(get_all=True)
```

```
all_owned_projects = gl.projects.list(owned=True, get_all=True)
```

You can define the `per_page` value globally to avoid passing it to every `list()` method call:

```
gl = gitlab.Gitlab(url, token, per_page=50)
```

Gitlab allows to also use keyset pagination. You can supply it to your project listing, but you can also do so globally. Be aware that GitLab then also requires you to only use supported order options. At the time of writing, only `order_by="id"` works.

```
gl = gitlab.Gitlab(url, token, pagination="keyset", order_by="id", per_page=100)  
gl.projects.list()
```

Reference: <https://docs.gitlab.com/ce/api/README.html#keyset-based-pagination>

`list()` methods can also return a generator object, by passing the argument `iterator=True`, which will handle the next calls to the API when required. This is the recommended way to iterate through a large number of items:

```
items = gl.groups.list(iterator=True)  
for item in items:  
    print(item.attributes)
```

The generator exposes extra listing information as received from the server:

- `current_page`: current page number (first page is 1)
- `prev_page`: if `None` the current page is the first one
- `next_page`: if `None` the current page is the last one
- `per_page`: number of items per page
- `total_pages`: total number of pages available. This may be a `None` value.
- `total`: total number of items in the list. This may be a `None` value.

Note: For performance reasons, if a query returns more than 10,000 records, GitLab does not return the `total_pages` or `total` headers. In this case, `total_pages` and `total` will have a value of `None`.

For more information see: https://docs.gitlab.com/ee/user/gitlab_com/index.html#pagination-response-headers

Note: Prior to python-gitlab 3.6.0 the argument `as_list` was used instead of `iterator`. `as_list=False` is the equivalent of `iterator=True`.

Note: If `page` and `iterator=True` are used together, the latter is ignored.

7.2.9 Sudo

If you have the administrator status, you can use `sudo` to act as another user. For example:

```
p = gl.projects.create({'name': 'awesome_project'}, sudo='user1')
```

7.2.10 Logging

To enable debug logging from the underlying `requests` and `http.client` calls, you can use `enable_debug()` on your Gitlab instance. For example:

```
import os
import gitlab

gl = gitlab.Gitlab(private_token=os.getenv("GITLAB_TOKEN"))
gl.enable_debug()
```

By default, python-gitlab will mask the token used for authentication in logging output. If you'd like to debug credentials sent to the API, you can disable masking explicitly:

```
gl.enable_debug(mask_credentials=False)
```

7.2.11 Attributes in updated objects

When methods manipulate an existing object, such as with `refresh()` and `save()`, the object will only have attributes that were returned by the server. In some cases, such as when the initial request fetches attributes that are needed later for additional processing, this may not be desired:

```
project = gl.projects.get(1, statistics=True)
project.statistics

project.refresh()
project.statistics # AttributeError
```

To avoid this, either copy the object/attributes before calling `refresh()/save()` or subsequently perform another `get()` call as needed, to fetch the attributes you want.

7.3 Advanced usage

7.3.1 Using a custom session

python-gitlab relies on `requests.Session` objects to perform all the HTTP requests to the GitLab servers.

You can provide a custom session to create `gitlab.Gitlab` objects:

```
import gitlab
import requests

session = requests.Session()
gl = gitlab.Gitlab(session=session)

# or when instantiating from configuration files
gl = gitlab.Gitlab.from_config('somewhere', ['/tmp/gl.cfg'], session=session)
```

Reference: <https://requests.readthedocs.io/en/latest/user/advanced/#session-objects>

7.3.2 Context manager

You can use `Gitlab` objects as context managers. This makes sure that the `requests.Session` object associated with a `Gitlab` instance is always properly closed when you exit a `with` block:

```
with gitlab.Gitlab(host, token) as gl:
    gl.projects.list()
```

Warning: The context manager will also close the custom `Session` object you might have used to build the `Gitlab` instance.

7.3.3 netrc authentication

python-gitlab reads credentials from `.netrc` files via the `requests` backend only if you do not provide any other type of authentication yourself.

If you'd like to disable reading `netrc` files altogether, you can follow [Using a custom session](#) and explicitly set `trust_env=False` as described in the `requests` documentation.

```
import gitlab
import requests

session = requests.Session(trust_env=False)
gl = gitlab.Gitlab(session=session)
```

Reference: <https://requests.readthedocs.io/en/latest/user/authentication/#netrc-authentication>

7.3.4 Proxy configuration

python-gitlab accepts the standard `http_proxy`, `https_proxy` and `no_proxy` environment variables via the `requests` backend. Uppercase variables are also supported.

For more granular control, you can also explicitly set proxies by [Using a custom session](#) as described in the `requests` documentation.

Reference: <https://requests.readthedocs.io/en/latest/user/advanced/#proxies>

7.3.5 SSL certificate verification

python-gitlab relies on the CA certificate bundle in the `certifi` package that comes with the `requests` library.

If you need python-gitlab to use your system CA store instead, you can provide the path to the CA bundle in the `REQUESTS_CA_BUNDLE` environment variable.

Reference: <https://requests.readthedocs.io/en/latest/user/advanced/#ssl-cert-verification>

7.3.6 Client side certificate

The following sample illustrates how to use a client-side certificate:

```
import gitlab
import requests

session = requests.Session()
session.cert = ('/path/to/client.cert', '/path/to/client.key')
gl = gitlab.Gitlab(url, token, api_version=4, session=session)
```

Reference: <https://requests.readthedocs.io/en/latest/user/advanced/#client-side-certificates>

7.3.7 Rate limits

python-gitlab obeys the rate limit of the GitLab server by default. On receiving a 429 response (Too Many Requests), python-gitlab sleeps for the amount of time in the Retry-After header that GitLab sends back. If GitLab does not return a response with the Retry-After header, python-gitlab will perform an exponential backoff.

If you don't want to wait, you can disable the rate-limiting feature, by supplying the `obey_rate_limit` argument.

```
import gitlab
import requests

gl = gitlab.Gitlab(url, token, api_version=4)
gl.projects.list(get_all=True, obey_rate_limit=False)
```

If you do not disable the rate-limiting feature, you can supply a custom value for `max_retries`; by default, this is set to 10. To retry without bound when throttled, you can set this parameter to -1. This parameter is ignored if `obey_rate_limit` is set to False.

```
import gitlab
import requests
```

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```
gl = gitlab.Gitlab(url, token, api_version=4)
gl.projects.list(get_all=True, max_retries=12)
```

Warning: You will get an Exception, if you then go over the rate limit of your GitLab instance.

7.3.8 Transient errors

GitLab server can sometimes return a transient HTTP error. python-gitlab can automatically retry in such case, when `retry_transient_errors` argument is set to True. When enabled, HTTP error codes 500 (Internal Server Error), 502 (502 Bad Gateway), 503 (Service Unavailable), 504 (Gateway Timeout), and Cloudflare errors (520-530) are retried.

Additionally, HTTP error code 409 (Conflict) is retried if the reason is a [Resource lock](#).

It will retry until reaching the `max_retries` value. By default, `retry_transient_errors` is set to False and an exception is raised for these errors.

```
import gitlab
import requests

gl = gitlab.Gitlab(url, token, api_version=4)
gl.projects.list(get_all=True, retry_transient_errors=True)
```

The default `retry_transient_errors` can also be set on the `Gitlab` object and overridden by individual API calls.

```
import gitlab
import requests
gl = gitlab.Gitlab(url, token, api_version=4, retry_transient_errors=True)
gl.projects.list(get_all=True)                                # retries due to default
                                                               # value
gl.projects.list(get_all=True, retry_transient_errors=False) # does not retry
```

7.3.9 Timeout

python-gitlab will by default use the `timeout` option from its configuration for all requests. This is passed downwards to the `requests` module at the time of making the HTTP request. However if you would like to override the global timeout parameter for a particular call, you can provide the `timeout` parameter to that API invocation:

```
import gitlab

gl = gitlab.Gitlab(url, token, api_version=4)
gl.projects.import_github(ACCESS_TOKEN, 123456, "root", timeout=120.0)
```

7.3.10 Typing

Generally, `python-gitlab` is a fully typed package. However, currently you may still need to do some type narrowing on your own, such as for nested API responses and Union return types. For example:

```
from typing import TYPE_CHECKING

import gitlab

gl = gitlab.Gitlab(url, token, api_version=4)
license = gl.get_license()

if TYPE_CHECKING:
    assert isinstance(license["plan"], str)
```

7.4 CLI examples

See also:

For a complete list of objects and actions available, see *CLI reference (gitlab command)*.

7.4.1 CI Lint

ci-lint has been Removed in Gitlab 16, use project-ci-lint instead

Lint a CI YAML configuration from a string:

Note: To see output, you will need to use the `-v/--verbose` flag.

To exit with non-zero on YAML lint failures instead, use the `validate` subcommand shown below.

```
$ gitlab --verbose ci-lint create --content \
"---
test:
  script:
    - echo hello
"'
```

Lint a CI YAML configuration from a file (see *Reading values from files*):

```
$ gitlab --verbose ci-lint create --content @.gitlab-ci.yml
```

Validate a CI YAML configuration from a file (lints and exits with non-zero on failure):

```
$ gitlab ci-lint validate --content @.gitlab-ci.yml
```

7.4.2 Project CI Lint

Lint a project's CI YAML configuration:

```
$ gitlab --verbose project-ci-lint create --project-id group/my-project --content @.  
└─gitlab-ci.yml
```

Validate a project's CI YAML configuration (lints and exits with non-zero on failure):

```
$ gitlab project-ci-lint validate --project-id group/my-project --content @.gitlab-ci.yml
```

Lint a project's current CI YAML configuration:

```
$ gitlab --verbose project-ci-lint get --project-id group/my-project
```

Lint a project's current CI YAML configuration on a specific branch:

```
$ gitlab --verbose project-ci-lint get --project-id group/my-project --ref my-branch
```

7.4.3 Projects

List the projects (paginated):

```
$ gitlab project list
```

List all the projects:

```
$ gitlab project list --get-all
```

List all projects of a group:

```
$ gitlab group-project list --get-all --group-id 1
```

List all projects of a group and its subgroups:

```
$ gitlab group-project list --get-all --include-subgroups true --group-id 1
```

Limit to 5 items per request, display the 1st page only

```
$ gitlab project list --page 1 --per-page 5
```

Get a specific project (id 2):

```
$ gitlab project get --id 2
```

7.4.4 Users

Get a specific user by id:

```
$ gitlab user get --id 3
```

Create a user impersonation token (admin-only):

```
gitlab user-impersonation-token create --user-id 2 --name test-token --scopes api,read_user
```

7.4.5 Deploy tokens

Create a deploy token for a project:

```
$ gitlab -v project-deploy-token create --project-id 2 \
--name bar --username root --expires-at "2021-09-09" --scopes "api,read_repository"
```

List deploy tokens for a group:

```
$ gitlab -v group-deploy-token list --group-id 3
```

7.4.6 Personal access tokens

List the current user's personal access tokens (or all users' tokens, if admin):

```
$ gitlab -v personal-access-token list
```

Revoke a personal access token by id:

```
$ gitlab personal-access-token delete --id 1
```

Revoke the personal access token currently used:

```
$ gitlab personal-access-token delete --id self
```

Create a personal access token for a user (admin only):

```
$ gitlab -v user-personal-access-token create --user-id 2 \
--name personal-access-token --expires-at "2023-01-01" --scopes "api,read_repository"
--"
```

7.4.7 Resource access tokens

Create a project access token:

```
$ gitlab -v project-access-token create --project-id 2 \
--name project-token --expires-at "2023-01-01" --scopes "api,read_repository"
```

List project access tokens:

```
$ gitlab -v project-access-token list --project-id 3
```

Revoke a project access token:

```
$ gitlab project-access-token delete --project-id 3 --id 1
```

Create a group access token:

```
$ gitlab -v group-access-token create --group-id 2 \
--name group-token --expires-at "2022-01-01" --scopes "api,read_repository"
```

List group access tokens:

```
$ gitlab -v group-access-token list --group-id 3
```

Revoke a group access token:

```
$ gitlab group-access-token delete --group-id 3 --id 1
```

7.4.8 Packages

List packages for a project:

```
$ gitlab -v project-package list --project-id 3
```

List packages for a group:

```
$ gitlab -v group-package list --group-id 3
```

Get a specific project package by id:

```
$ gitlab -v project-package get --id 1 --project-id 3
```

Delete a specific project package by id:

```
$ gitlab -v project-package delete --id 1 --project-id 3
```

Upload a generic package to a project:

```
$ gitlab generic-package upload --project-id 1 --package-name hello-world \
--package-version v1.0.0 --file-name hello.tar.gz --path /path/to/hello.tar.gz
```

Download a project's generic package:

```
$ gitlab generic-package download --project-id 1 --package-name hello-world \
--package-version v1.0.0 --file-name hello.tar.gz > /path/to/hello.tar.gz
```

7.4.9 Issues

Get a list of issues for this project:

```
$ gitlab project-issue list --project-id 2
```

7.4.10 Snippets

Delete a snippet (id 3):

```
$ gitlab project-snippet delete --id 3 --project-id 2
```

Update a snippet:

```
$ gitlab project-snippet update --id 4 --project-id 2 \
--code "My New Code"
```

Create a snippet:

```
$ gitlab project-snippet create --project-id 2
Impossible to create object (Missing attribute(s): title, file-name, code)
$ # oops, let's add the attributes:
$ gitlab project-snippet create --project-id 2 --title "the title" \
--file-name "the name" --code "the code"
```

7.4.11 Commits

Get a specific project commit by its SHA id:

```
$ gitlab project-commit get --project-id 2 --id a43290c
```

Get the signature (e.g. GPG or x509) of a signed commit:

```
$ gitlab project-commit signature --project-id 2 --id a43290c
```

Define the status of a commit (as would be done from a CI tool for example):

```
$ gitlab project-commit-status create --project-id 2 \
--commit-id a43290c --state success --name ci/jenkins \
--target-url http://server/build/123 \
--description "Jenkins build succeeded"
```

Get the merge base for two or more branches, tags or commits:

```
gitlab project repository-merge-base --id 1 --refs bd1324e2f,main,v1.0.0
```

7.4.12 Artifacts

Download the artifacts zip archive of a job:

```
$ gitlab project-job artifacts --id 10 --project-id 1 > artifacts.zip
```

7.4.13 Runners

List owned runners:

```
$ gitlab runner list
```

List owned runners with a filter:

```
$ gitlab runner list --scope active
```

List all runners in the GitLab instance (specific and shared):

```
$ gitlab runner-all list
```

Get a runner's details:

```
$ gitlab -v runner get --id 123
```

7.4.14 Other

Use sudo to act as another user (admin only):

```
$ gitlab project create --name user_project1 --sudo username
```

List values are comma-separated:

```
$ gitlab issue list --labels foo,bar
```

7.5 API examples

7.5.1 Access requests

Users can request access to groups and projects.

When access is granted the user should be given a numerical access level. The following constants are provided to represent the access levels:

- `gitlab.const.AccessLevel.GUEST: 10`
- `gitlab.const.AccessLevel.REPORTER: 20`
- `gitlab.const.AccessLevel.DEVELOPER: 30`
- `gitlab.const.AccessLevel.MAINTAINER: 40`
- `gitlab.const.AccessLevel.OWNER: 50`

References

- v4 API:
 - `gitlab.v4.objects.ProjectAccessRequest`
 - `gitlab.v4.objects.ProjectAccessRequestManager`
 - `gitlab.v4.objects.Project.accessrequests`
 - `gitlab.v4.objects.GroupAccessRequest`
 - `gitlab.v4.objects.GroupAccessRequestManager`
 - `gitlab.v4.objects.Group.accessrequests`
- GitLab API: https://docs.gitlab.com/ce/api/access_requests.html

Examples

List access requests from projects and groups:

```
p_ars = project.accessrequests.list()
g_ars = group.accessrequests.list()
```

Create an access request:

```
p_ar = project.accessrequests.create()
g_ar = group.accessrequests.create()
```

Approve an access request:

```
ar.approve()  # defaults to DEVELOPER level
ar.approve(access_level=gitlab.const.AccessLevel.MAINTAINER)  # explicitly set access_level
```

Deny (delete) an access request:

```
project.accessrequests.delete(user_id)
group.accessrequests.delete(user_id)
# or
ar.delete()
```

7.5.2 Appearance

Reference

- v4 API:
 - `gitlab.v4.objects.ApplicationAppearance`
 - `gitlab.v4.objects.ApplicationAppearanceManager`
 - `gitlab.Gitlab.appearance`
- GitLab API: <https://docs.gitlab.com/ce/api/appearance.html>

Examples

Get the appearance:

```
appearance = gl.appearance.get()
```

Update the appearance:

```
appearance.title = "Test"  
appearance.save()
```

7.5.3 Applications

Reference

- v4 API:
 - `gitlab.v4.objects.Applications`
 - `gitlab.v4.objects.ApplicationManager`
 - `gitlab.Gitlab.applications`
- GitLab API: <https://docs.gitlab.com/ce/api/applications.html>

Examples

List all OAuth applications:

```
applications = gl.applications.list()
```

Create an application:

```
gl.applications.create({'name': 'your_app', 'redirect_uri': 'http://application.url',  
    ↪'scopes': 'read_user openid profile email'})
```

Delete an application:

```
gl.applications.delete(app_id)  
# or  
application.delete()
```

7.5.4 Award Emojis

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectIssueAwardEmoji`
 - `gitlab.v4.objects.ProjectIssueNoteAwardEmoji`
 - `gitlab.v4.objects.ProjectMergeRequestAwardEmoji`
 - `gitlab.v4.objects.ProjectMergeRequestNoteAwardEmoji`

- `gitlab.v4.objects.ProjectSnippetAwardEmoji`
 - `gitlab.v4.objects.ProjectSnippetNoteAwardEmoji`
 - `gitlab.v4.objects.ProjectIssueAwardEmojiManager`
 - `gitlab.v4.objects.ProjectIssueNoteAwardEmojiManager`
 - `gitlab.v4.objects.ProjectMergeRequestAwardEmojiManager`
 - `gitlab.v4.objects.ProjectMergeRequestNoteAwardEmojiManager`
 - `gitlab.v4.objects.ProjectSnippetAwardEmojiManager`
 - `gitlab.v4.objects.ProjectSnippetNoteAwardEmojiManager`
- GitLab API: https://docs.gitlab.com/ce/api/award_emoji.html

Examples

List emojis for a resource:

```
emojis = obj.awardemojis.list()
```

Get a single emoji:

```
emoji = obj.awardemojis.get(emoji_id)
```

Add (create) an emoji:

```
emoji = obj.awardemojis.create({'name': 'tractor'})
```

Delete an emoji:

```
emoji.delete
# or
obj.awardemojis.delete(emoji_id)
```

7.5.5 Badges

Badges can be associated with groups and projects.

Reference

- v4 API:
 - `gitlab.v4.objects.GroupBadge`
 - `gitlab.v4.objects.GroupBadgeManager`
 - `gitlab.v4.objects.Group.badges`
 - `gitlab.v4.objects.ProjectBadge`
 - `gitlab.v4.objects.ProjectBadgeManager`
 - `gitlab.v4.objects.Project.badges`
- GitLab API:
 -

- https://docs.gitlab.com/ce/api/group_badges.html
- https://docs.gitlab.com/ce/api/project_badges.html

Examples

List badges:

```
badges = group_or_project.badges.list()
```

Get a badge:

```
badge = group_or_project.badges.get(badge_id)
```

Create a badge:

```
badge = group_or_project.badges.create({'link_url': link, 'image_url': image_link})
```

Update a badge:

```
badge.image_url = new_image_url  
badge.link_url = new_link_url  
badge.save()
```

Delete a badge:

```
badge.delete()
```

Render a badge (preview the generate URLs):

```
output = group_or_project.badges.render(link, image_link)  
print(output['rendered_link_url'])  
print(output['rendered_image_url'])
```

7.5.6 Branches

References

- v4 API:
 - `gitlab.v4.objects.ProjectBranch`
 - `gitlab.v4.objects.ProjectBranchManager`
 - `gitlab.v4.objects.Project.branches`
- GitLab API: <https://docs.gitlab.com/ce/api/branches.html>

Examples

Get the list of branches for a repository:

```
branches = project.branches.list()
```

Get a single repository branch:

```
branch = project.branches.get('main')
```

Create a repository branch:

```
branch = project.branches.create({'branch': 'feature1',
                                  'ref': 'main'})
```

Delete a repository branch:

```
project.branches.delete('feature1')
# or
branch.delete()
```

Delete the merged branches for a project:

```
project.delete_merged_branches()
```

To manage protected branches, see *Protected branches*.

7.5.7 Migrations (Bulk Imports)

References

- v4 API:
 - *gitlab.v4.objects.BulkImport*
 - *gitlab.v4.objects.BulkImportManager*
 - *gitlab.Gitlab.bulk_imports*
 - *gitlab.v4.objects.BulkImportAllEntity*
 - *gitlab.v4.objects.BulkImportAllEntityManager*
 - *gitlab.Gitlab.bulk_import_entities*
 - *gitlab.v4.objects.BulkImportEntity*
 - *gitlab.v4.objects.BulkImportEntityManager*
 - *gitlab.v4.objects.BulkImport.entities*
- GitLab API: https://docs.gitlab.com/ee/api/bulk_imports.html

Examples

Note: Like the project/group imports and exports, this is an asynchronous operation and you will need to refresh the state from the server to get an accurate migration status. See [Examples](#) in the import/export section for more details and examples.

Start a bulk import/migration of a group and wait for completion:

```
# Create the migration
configuration = {
    "url": "https://gitlab.example.com",
    "access_token": private_token,
}
entity = {
    "source_full_path": "source_group",
    "source_type": "group_entity",
    "destination_slug": "imported-group",
    "destination_namespace": "imported-namespace",
}
migration = gl.bulk_imports.create(
    {
        "configuration": configuration,
        "entities": [entity],
    }
)

# Wait for the 'finished' status
while migration.status != "finished":
    time.sleep(1)
    migration.refresh()
```

List all migrations:

```
gl.bulk_imports.list()
```

List the entities of all migrations:

```
gl.bulk_import_entities.list()
```

Get a single migration by ID:

```
migration = gl.bulk_imports.get(123)
```

List the entities of a single migration:

```
entities = migration.entities.list()
```

Get a single entity of a migration by ID:

```
entity = migration.entities.get(123)
```

Refresh the state of a migration or entity from the server:

```
migration.refresh()
entity.refresh()

print(migration.status)
print(entity.status)
```

7.5.8 Broadcast messages

You can use broadcast messages to display information on all pages of the gitlab web UI. You must have administration permissions to manipulate broadcast messages.

References

- v4 API:
 - `gitlab.v4.objects.BroadcastMessage`
 - `gitlab.v4.objects.BroadcastMessageManager`
 - `gitlab.Gitlab.broadcastmessages`
- GitLab API: https://docs.gitlab.com/ce/api/broadcast_messages.html

Examples

List the messages:

```
msgs = gl.broadcastmessages.list()
```

Get a single message:

```
msg = gl.broadcastmessages.get(msg_id)
```

Create a message:

```
msg = gl.broadcastmessages.create({'message': 'Important information'})
```

The date format for the `starts_at` and `ends_at` parameters is YYYY-MM-ddThh:mm:ssZ.

Update a message:

```
msg.font = '#444444'
msg.color = '#999999'
msg.save()
```

Delete a message:

```
gl.broadcastmessages.delete(msg_id)
# or
msg.delete()
```

7.5.9 CI Lint

Reference

- v4 API:
 - `gitlab.v4.objects.CiLint`
 - `gitlab.v4.objects.CiLintManager`
 - `gitlab.Gitlab.ci_lint`
 - `gitlab.v4.objects.ProjectCiLint`
 - `gitlab.v4.objects.ProjectCiLintManager`
 - `gitlab.v4.objects.Project.ci_lint`
- GitLab API: <https://docs.gitlab.com/ee/api/lint.html>

Examples

Lint a CI YAML configuration:

```
gitlab_ci_yml = """api_test:
  rules:
    - if: $CI_PIPELINE_SOURCE=="merge_request_event"
      changes:
        - src/api/*
  deploy:
    extends:
      - .api_test
    rules:
      - when: manual
        allow_failure: true
    script:
      - echo "hello world"
"""
lint_result = gl.ci_lint.create({"content": gitlab_ci_yml})

print(lint_result.status) # Print the status of the CI YAML
print(lint_result.merged_yaml) # Print the merged YAML file
```

Lint a project's CI configuration:

```
lint_result = project.ci_lint.get()
assert lint_result.valid is True # Test that the .gitlab-ci.yml is valid
print(lint_result.merged_yaml) # Print the merged YAML file
```

Lint a CI YAML configuration with a namespace:

```
lint_result = project.ci_lint.create({"content": gitlab_ci_yml})
assert lint_result.valid is True # Test that the .gitlab-ci.yml is valid
print(lint_result.merged_yaml) # Print the merged YAML file
```

Validate a CI YAML configuration (raises `GitlabCiLintError` on failures):

```
# returns None
gl.ci_lint.validate({"content": gitlab_ci_yml})

# raises GitlabCiLintError
gl.ci_lint.validate({"content": "invalid"})
```

Validate a CI YAML configuration with a namespace:

```
# returns None
project.ci_lint.validate({"content": gitlab_ci_yml})

# raises GitLabCiLintError
project.ci_lint.validate({"content": "invalid"})
```

7.5.10 Commits

Commits

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectCommit`
 - `gitlab.v4.objects.ProjectCommitManager`
 - `gitlab.v4.objects.Project.commits`

Examples

List the commits for a project:

```
commits = project.commits.list()
```

You can use the `ref_name`, `since` and `until` filters to limit the results:

```
commits = project.commits.list(ref_name='my_branch')
commits = project.commits.list(since='2016-01-01T00:00:00Z')
```

List all commits for a project (see [Pagination](#)) on all branches:

```
commits = project.commits.list(get_all=True, all=True)
```

Create a commit:

```
# See https://docs.gitlab.com/ce/api/commits.html#create-a-commit-with-multiple-files-and-actions
# for actions detail
data = {
    'branch': 'main',
    'commit_message': 'blah blah blah',
    'actions': [
        {
            'label': 'Deploy to Production',
            'script': 'echo "Deploying to Production"',
            'ref': 'main'
        }
    ]
}
```

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```
'action': 'create',
'file_path': 'README.rst',
'content': open('path/to/file.rst').read(),
},
{
    # Binary files need to be base64 encoded
    'action': 'create',
    'file_path': 'logo.png',
    'content': base64.b64encode(open('logo.png', mode='r+b').read()).decode(),
    'encoding': 'base64',
}
]

commit = project.commits.create(data)
```

Get a commit detail:

```
commit = project.commits.get('e3d5a71b')
```

Get the diff for a commit:

```
diff = commit.diff()
```

Cherry-pick a commit into another branch:

```
commit.cherry_pick(branch='target_branch')
```

Revert a commit on a given branch:

```
commit.revert(branch='target_branch')
```

Get the references the commit has been pushed to (branches and tags):

```
commit.refs()  # all references
commit.refs('tag')  # only tags
commit.refs('branch')  # only branches
```

Get the signature of the commit (if the commit was signed, e.g. with GPG or x509):

```
commit.signature()
```

List the merge requests related to a commit:

```
commit.merge_requests()
```

Commit comments

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectCommitComment`
 - `gitlab.v4.objects.ProjectCommitCommentManager`
 - `gitlab.v4.objects.ProjectCommit.comments`
- GitLab API: <https://docs.gitlab.com/ce/api/commits.html>

Examples

Get the comments for a commit:

```
comments = commit.comments.list()
```

Add a comment on a commit:

```
# Global comment
commit = commit.comments.create({'note': 'This is a nice comment'})
# Comment on a line in a file (on the new version of the file)
commit = commit.comments.create({'note': 'This is another comment',
                                'line': 12,
                                'line_type': 'new',
                                'path': 'README.rst'})
```

Commit status

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectCommitStatus`
 - `gitlab.v4.objects.ProjectCommitStatusManager`
 - `gitlab.v4.objects.ProjectCommit.statuses`
- GitLab API: <https://docs.gitlab.com/ce/api/commits.html>

Examples

List the statuses for a commit:

```
statuses = commit.statuses.list()
```

Change the status of a commit:

```
commit.statuses.create({'state': 'success'})
```

7.5.11 Deploy keys

Deploy keys

Reference

- v4 API:
 - `gitlab.v4.objects.DeployKey`
 - `gitlab.v4.objects.DeployKeyManager`
 - `gitlab.Gitlab.deploykeys`
- GitLab API: https://docs.gitlab.com/ce/api/deploy_keys.html

Examples

List the deploy keys:

```
keys = gl.deploykeys.list()
```

Deploy keys for projects

Deploy keys can be managed on a per-project basis.

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectKey`
 - `gitlab.v4.objects.ProjectKeyManager`
 - `gitlab.v4.objects.Project.keys`
- GitLab API: https://docs.gitlab.com/ce/api/deploy_keys.html

Examples

List keys for a project:

```
keys = project.keys.list()
```

Get a single deploy key:

```
key = project.keys.get(key_id)
```

Create a deploy key for a project:

```
key = project.keys.create({'title': 'jenkins key',
                           'key': open('/home/me/.ssh/id_rsa.pub').read()})
```

Delete a deploy key for a project:

```
key = project.keys.list(key_id)
# or
key.delete()
```

Enable a deploy key for a project:

```
project.keys.enable(key_id)
```

Disable a deploy key for a project:

```
project.keys.delete(key_id)
```

7.5.12 Deploy tokens

Deploy tokens allow read-only access to your repository and registry images without having a user and a password.

Deploy tokens

This endpoint requires admin access.

Reference

- v4 API:
 - [*gitlab.v4.objects.DeployToken*](#)
 - [*gitlab.v4.objects.DeployTokenManager*](#)
 - [*gitlab.Gitlab.deploytokens*](#)
- GitLab API: https://docs.gitlab.com/ce/api/deploy_tokens.html

Examples

Use the `list()` method to list all deploy tokens across the GitLab instance.

```
# List deploy tokens
deploy_tokens = gl.deploytokens.list()
```

Project deploy tokens

This endpoint requires project maintainer access or higher.

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectDeployToken`
 - `gitlab.v4.objects.ProjectDeployTokenManager`
 - `gitlab.v4.objects.Project.deploytokens`
- GitLab API: https://docs.gitlab.com/ce/api/deploy_tokens.html#project-deploy-tokens

Examples

List the deploy tokens for a project:

```
deploy_tokens = project.deploytokens.list()
```

Get a deploy token for a project by id:

```
deploy_token = project.deploytokens.get(deploy_token_id)
```

Create a new deploy token to access registry images of a project:

In addition to required parameters `name` and `scopes`, this method accepts the following parameters:

- `expires_at` Expiration date of the deploy token. Does not expire if no value is provided.
- `username` Username for deploy token. Default is `gitlab+deploy-token-{n}`

```
deploy_token = project.deploytokens.create({'name': 'token1', 'scopes': ['read_registry', ''], 'username': '', 'expires_at': ''})  
# show its id  
print(deploy_token.id)  
# show the token value. Make sure you save it, you won't be able to access it again.  
print(deploy_token.token)
```

Warning: With GitLab 12.9, even though `username` and `expires_at` are not required, they always have to be passed to the API. You can set them to empty strings, see: <https://gitlab.com/gitlab-org/gitlab/-/issues/211878>. Also, the `username`'s value is ignored by the API and will be overridden with `gitlab+deploy-token-{n}`, see: <https://gitlab.com/gitlab-org/gitlab/-/issues/211963> These issues were fixed in GitLab 12.10.

Remove a deploy token from the project:

```
deploy_token.delete()  
# or  
project.deploytokens.delete(deploy_token.id)
```

Group deploy tokens

Reference

- v4 API:
 - `gitlab.v4.objects.GroupDeployToken`
 - `gitlab.v4.objects.GroupDeployTokenManager`
 - `gitlab.v4.objects.Group.deploytokens`
- GitLab API: https://docs.gitlab.com/ce/api/deploy_tokens.html#group-deploy-tokens

Examples

List the deploy tokens for a group:

```
deploy_tokens = group.deploytokens.list()
```

Get a deploy token for a group by id:

```
deploy_token = group.deploytokens.get(deploy_token_id)
```

Create a new deploy token to access all repositories of all projects in a group:

In addition to required parameters `name` and `scopes`, this method accepts the following parameters:

- `expires_at` Expiration date of the deploy token. Does not expire if no value is provided.
- `username` Username for deploy token. Default is `gitlab+deploy-token-{n}`

```
deploy_token = group.deploytokens.create({'name': 'token1', 'scopes': ['read_repository'],
                                         'username': '', 'expires_at': ''})
# show its id
print(deploy_token.id)
```

Warning: With GitLab 12.9, even though `username` and `expires_at` are not required, they always have to be passed to the API. You can set them to empty strings, see: <https://gitlab.com/gitlab-org/gitlab/-/issues/211878>. Also, the `username`'s value is ignored by the API and will be overridden with `gitlab+deploy-token-{n}`, see: <https://gitlab.com/gitlab-org/gitlab/-/issues/211963> These issues were fixed in GitLab 12.10.

Remove a deploy token from the group:

```
deploy_token.delete()
# or
group.deploytokens.delete(deploy_token.id)
```

7.5.13 Deployments

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectDeployment`
 - `gitlab.v4.objects.ProjectDeploymentManager`
 - `gitlab.v4.objects.Project.deployments`
- GitLab API: <https://docs.gitlab.com/ce/api/deployments.html>

Examples

List deployments for a project:

```
deployments = project.deployments.list()
```

Get a single deployment:

```
deployment = project.deployments.get(deployment_id)
```

Create a new deployment:

```
deployment = project.deployments.create({  
    "environment": "Test",  
    "sha": "1agf4gs",  
    "ref": "main",  
    "tag": False,  
    "status": "created",  
})
```

Update a deployment:

```
deployment = project.deployments.get(42)  
deployment.status = "failed"  
deployment.save()
```

Approve a deployment:

```
deployment = project.deployments.get(42)  
# `status` must be either "approved" or "rejected".  
deployment.approval(status="approved")
```

Reject a deployment:

```
deployment = project.deployments.get(42)  
# Using the optional `comment` and `represented_as` arguments  
deployment.approval(status="rejected", comment="Fails CI", represented_as="security")
```

Merge requests associated with a deployment

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectDeploymentMergeRequest`
 - `gitlab.v4.objects.ProjectDeploymentMergeRequestManager`
 - `gitlab.v4.objects.ProjectDeployment.mergerequests`
- GitLab API: <https://docs.gitlab.com/ee/api/deployments.html#list-of-merge-requests-associated-with-a-deployment>

Examples

List the merge requests associated with a deployment:

```
deployment = project.deployments.get(42, lazy=True)
mrs = deployment.mergerequests.list()
```

7.5.14 Discussions

Discussions organize the notes in threads. See the [Notes](#) chapter for more information about notes.

Discussions are available for project issues, merge requests, snippets and commits.

Reference

- v4 API:

Issues:

- `gitlab.v4.objects.ProjectIssueDiscussion`
- `gitlab.v4.objects.ProjectIssueDiscussionManager`
- `gitlab.v4.objects.ProjectIssueDiscussionNote`
- `gitlab.v4.objects.ProjectIssueDiscussionNoteManager`
- `gitlab.v4.objects.ProjectIssue.notes`

MergeRequests:

- `gitlab.v4.objects.ProjectMergeRequestDiscussion`
- `gitlab.v4.objects.ProjectMergeRequestDiscussionManager`
- `gitlab.v4.objects.ProjectMergeRequestDiscussionNote`
- `gitlab.v4.objects.ProjectMergeRequestDiscussionNoteManager`
- `gitlab.v4.objects.ProjectMergeRequest.notes`

Snippets:

- `gitlab.v4.objects.ProjectSnippetDiscussion`
- `gitlab.v4.objects.ProjectSnippetDiscussionManager`

- `gitlab.v4.objects.ProjectSnippetDiscussionNote`
 - `gitlab.v4.objects.ProjectSnippetDiscussionNoteManager`
 - `gitlab.v4.objects.ProjectSnippet.notes`
- GitLab API: <https://docs.gitlab.com/ce/api/discussions.html>

Examples

List the discussions for a resource (issue, merge request, snippet or commit):

```
discussions = resource.discussions.list()
```

Get a single discussion:

```
discussion = resource.discussions.get(discussion_id)
```

You can access the individual notes in the discussion through the `notes` attribute. It holds a list of notes in chronological order:

```
# ``resource.notes`` is a DiscussionNoteManager, so we need to get the
# object notes using ``attributes``
for note in discussion.attributes['notes']:
    print(note['body'])
```

Note: The notes are dicts, not objects.

You can add notes to existing discussions:

```
new_note = discussion.notes.create({'body': 'Episode IV: A new note'})
```

You can get and update a single note using the *DiscussionNote resources:

```
discussion = resource.discussions.get(discussion_id)
# Get the latest note's id
note_id = discussion.attributes['notes'][ -1 ]['id']
last_note = discussion.notes.get(note_id)
last_note.body = 'Updated comment'
last_note.save()
```

Create a new discussion:

```
discussion = resource.discussions.create({'body': 'First comment of discussion'})
```

You can comment on merge requests and commit diffs. Provide the `position` dict to define where the comment should appear in the diff:

```
mr_diff = mr.diffs.get(diff_id)
mr.discussions.create({'body': 'Note content',
                      'position': {
                          'base_sha': mr_diff.base_commit_sha,
                          'start_sha': mr_diff.start_commit_sha,
                          'head_sha': mr_diff.head_commit_sha,
```

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```
'position_type': 'text',
'new_line': 1,
'old_path': 'README.rst',
'new_path': 'README.rst'}
```

}

Resolve / unresolve a merge request discussion:

```
mr_d = mr.discussions.get(d_id)
mr_d.resolved = True # True to resolve, False to unresolve
mr_d.save()
```

Delete a comment:

```
discussions.notes.delete(note_id)
# or
note.delete()
```

7.5.15 Draft Notes

Draft notes are pending, unpublished comments on merge requests. They can be either start a discussion, or be associated with an existing discussion as a reply. They are viewable only by the author until they are published.

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectMergeRequestDraftNote`
 - `gitlab.v4.objects.ProjectMergeRequestDraftNoteManager`
 - `gitlab.v4.objects.ProjectMergeRequest.draft_notes`
- GitLab API: https://docs.gitlab.com/ee/api/draft_notes.html

Examples

List all draft notes for a merge request:

```
draft_notes = merge_request.draft_notes.list()
```

Get a draft note for a merge request by ID:

```
draft_note = merge_request.draft_notes.get(note_id)
```

Warning: When creating or updating draft notes, you can provide a complex nested `position` argument as a dictionary. Please consult the upstream API documentation linked above for the exact up-to-date attributes.

Create a draft note for a merge request:

```
draft_note = merge_request.draft_notes.create({'note': 'note content'})
```

Update an existing draft note:

```
draft_note.note = 'updated note content'  
draft_note.save()
```

Delete an existing draft note:

```
draft_note.delete()
```

Publish an existing draft note:

```
draft_note.publish()
```

Publish all existing draft notes for a merge request in bulk:

```
merge_request.draft_notes.bulk_publish()
```

7.5.16 Environments

Reference

- v4 API:
 - *gitlab.v4.objects.ProjectEnvironment*
 - *gitlab.v4.objects.ProjectEnvironmentManager*
 - *gitlab.v4.objects.Project.environments*
- GitLab API: <https://docs.gitlab.com/ce/api/environments.html>

Examples

List environments for a project:

```
environments = project.environments.list()
```

Create an environment for a project:

```
environment = project.environments.create({'name': 'production'})
```

Retrieve a specific environment for a project:

```
environment = project.environments.get(112)
```

Update an environment for a project:

```
environment.external_url = 'http://foo.bar.com'  
environment.save()
```

Delete an environment for a project:

```
environment = project.environments.delete(environment_id)
# or
environment.delete()
```

Stop an environment:

```
environment.stop()
```

To manage protected environments, see [Protected environments](#).

7.5.17 Events

Events

Reference

- v4 API:
 - [gitlab.v4.objects.Event](#)
 - [gitlab.v4.objects.EventManager](#)
 - [gitlab.Gitlab.events](#)
 - [gitlab.v4.objects.ProjectEvent](#)
 - [gitlab.v4.objects.ProjectEventManager](#)
 - [gitlab.v4.objects.Project.events](#)
 - [gitlab.v4.objects.UserEvent](#)
 - [gitlab.v4.objects.UserEventManager](#)
 - [gitlab.v4.objects.User.events](#)
- GitLab API: <https://docs.gitlab.com/ce/api/events.html>

Examples

You can list events for an entire Gitlab instance (admin), users and projects. You can filter you events you want to retrieve using the `action` and `target_type` attributes. The possible values for these attributes are available on [the gitlab documentation](#).

List all the events (paginated):

```
events = gl.events.list()
```

List the issue events on a project:

```
events = project.events.list(target_type='issue')
```

List the user events:

```
events = project.events.list()
```

Resource state events

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectIssueResourceStateEvent`
 - `gitlab.v4.objects.ProjectIssueResourceStateEventManager`
 - `gitlab.v4.objects.ProjectIssue.resourcestateevents`
 - `gitlab.v4.objects.ProjectMergeRequestResourceStateEvent`
 - `gitlab.v4.objects.ProjectMergeRequestResourceStateEventManager`
 - `gitlab.v4.objects.ProjectMergeRequest.resourcestateevents`
- GitLab API: https://docs.gitlab.com/ee/api/resource_state_events.html

Examples

You can list and get specific resource state events (via their id) for project issues and project merge requests.

List the state events of a project issue (paginated):

```
state_events = issue.resourcestateevents.list()
```

Get a specific state event of a project issue by its id:

```
state_event = issue.resourcestateevents.get(1)
```

List the state events of a project merge request (paginated):

```
state_events = mr.resourcestateevents.list()
```

Get a specific state event of a project merge request by its id:

```
state_event = mr.resourcestateevents.get(1)
```

7.5.18 Epics

Epics

Reference

- v4 API:
 - `gitlab.v4.objects.GroupEpic`
 - `gitlab.v4.objects.GroupEpicManager`
 - `gitlab.Gitlab.Group.epics`
- GitLab API: <https://docs.gitlab.com/ee/api/epics.html> (EE feature)

Examples

List the epics for a group:

```
epics = groups.epics.list()
```

Get a single epic for a group:

```
epic = group.epics.get(epic_iid)
```

Create an epic for a group:

```
epic = group.epics.create({'title': 'My Epic'})
```

Edit an epic:

```
epic.title = 'New title'
epic.labels = ['label1', 'label2']
epic.save()
```

Delete an epic:

```
epic.delete()
```

Epics issues

Reference

- v4 API:
 - `gitlab.v4.objects.GroupEpicIssue`
 - `gitlab.v4.objects.GroupEpicIssueManager`
 - `gitlab.Gitlab.GroupEpic.issues`
- GitLab API: https://docs.gitlab.com/ee/api/epic_issues.html (EE feature)

Examples

List the issues associated with an issue:

```
ei = epic.issues.list()
```

Associate an issue with an epic:

```
# use the issue id, not its iid
ei = epic.issues.create({'issue_id': 4})
```

Move an issue in the list:

```
ei.move_before_id = epic_issue_id_1
# or
ei.move_after_id = epic_issue_id_2
ei.save()
```

Delete an issue association:

```
ei.delete()
```

7.5.19 Features flags

Reference

- v4 API:
 - `gitlab.v4.objects.Feature`
 - `gitlab.v4.objects.FeatureManager`
 - `gitlab.Gitlab.features`
- GitLab API: <https://docs.gitlab.com/ce/api/features.html>

Examples

List features:

```
features = gl.features.list()
```

Create or set a feature:

```
feature = gl.features.set(feature_name, True)
feature = gl.features.set(feature_name, 30)
feature = gl.features.set(feature_name, True, user=filipowm)
feature = gl.features.set(feature_name, 40, group=mygroup)
```

Delete a feature:

```
feature.delete()
```

7.5.20 Geo nodes

Reference

- v4 API:
 - `gitlab.v4.objects.GeoNode`
 - `gitlab.v4.objects.GeoNodeManager`
 - `gitlab.Gitlab.geonodes`
- GitLab API: https://docs.gitlab.com/ee/api/geo_nodes.html (EE feature)

Examples

List the geo nodes:

```
nodes = gl.geonodes.list()
```

Get the status of all the nodes:

```
status = gl.geonodes.status()
```

Get a specific node and its status:

```
node = gl.geonodes.get(node_id)
node.status()
```

Edit a node configuration:

```
node.url = 'https://secondary.mygitlab.domain'
node.save()
```

Delete a node:

```
node.delete()
```

List the sync failure on the current node:

```
failures = gl.geonodes.current_failures()
```

7.5.21 Groups

Groups

Reference

- v4 API:
 - *gitlab.v4.objects.Group*
 - *gitlab.v4.objects.GroupManager*
 - *gitlab.Gitlab.groups*
- GitLab API: <https://docs.gitlab.com/ce/api/groups.html>

Examples

List the groups:

```
groups = gl.groups.list()
```

Get a group's detail:

```
group = gl.groups.get(group_id)
```

List a group's projects:

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```
projects = group.projects.list()
```

List a group's shared projects:

```
projects = group.shared_projects.list()
```

Note: GroupProject and SharedProject objects returned by these two API calls are very limited, and do not provide all the features of Project objects. If you need to manipulate projects, create a new Project object:

```
first_group_project = group.projects.list()[0]  
manageable_project = gl.projects.get(first_group_project.id, lazy=True)
```

You can filter and sort the result using the following parameters:

- `archived`: limit by archived status
- `visibility`: limit by visibility. Allowed values are `public`, `internal` and `private`
- `search`: limit to groups matching the given value
- `order_by`: sort by criteria. Allowed values are `id`, `name`, `path`, `created_at`, `updated_at` and `last_activity_at`
- `sort`: sort order: `asc` or `desc`
- `ci_enabled_first`: return CI enabled groups first
- `include_subgroups`: include projects in subgroups

Create a group:

```
group = gl.groups.create({'name': 'group1', 'path': 'group1'})
```

Warning: On GitLab.com, creating top-level groups is currently not permitted using the API. You can only use the API to create subgroups.

Create a subgroup under an existing group:

```
subgroup = gl.groups.create({'name': 'subgroup1', 'path': 'subgroup1', 'parent_id':  
    ↪parent_group_id})
```

Update a group:

```
group.description = 'My awesome group'  
group.save()
```

Set the avatar image for a group:

```
# the avatar image can be passed as data (content of the file) or as a file  
# object opened in binary mode  
group.avatar = open('path/to/file.png', 'rb')  
group.save()
```

Remove a group:

```
gl.groups.delete(group_id)
# or
group.delete()
```

Restore a Group marked for deletion (Premium only)::

```
group.restore()
```

Share/unshare the group with a group:

```
group.share(group2.id, gitlab.const.AccessLevel.DEVELOPER)
group.unshare(group2.id)
```

Import / Export

You can export groups from gitlab, and re-import them to create new groups.

Reference

- v4 API:
 - *gitlab.v4.objects.GroupExport*
 - *gitlab.v4.objects.GroupExportManager*
 - *gitlab.v4.objects.Group.exports*
 - *gitlab.v4.objects.GroupImport*
 - *gitlab.v4.objects.GroupImportManager*
 - *gitlab.v4.objects.Group.imports*
 - *gitlab.v4.objects.GroupManager.import_group*
- GitLab API: https://docs.gitlab.com/ce/api/group_import_export.html

Examples

A group export is an asynchronous operation. To retrieve the archive generated by GitLab you need to:

1. Create an export using the API
2. Wait for the export to be done
3. Download the result

Warning: Unlike the Project Export API, GitLab does not provide an `export_status` for Group Exports. It is up to the user to ensure the export is finished.

However, Group Exports only contain metadata, so they are much faster than Project Exports.

```
# Create the export
group = gl.groups.get(my_group)
export = group.exports.create()

# Wait for the export to finish
time.sleep(3)

# Download the result
with open('/tmp/export.tgz', 'wb') as f:
    export.download(streamed=True, action=f.write)
```

Import the group:

```
with open('/tmp/export.tgz', 'rb') as f:
    gl.groups.import_group(f, path='imported-group', name="Imported Group")
```

Subgroups

Reference

- v4 API:
 - *gitlab.v4.objects.GroupSubgroup*
 - *gitlab.v4.objects.GroupSubgroupManager*
 - *gitlab.v4.objects.Group.subgroups*

Examples

List the subgroups for a group:

```
subgroups = group.subgroups.list()
```

Note: The *GroupSubgroup* objects don't expose the same API as the *Group* objects. If you need to manipulate a subgroup as a group, create a new *Group* object:

```
real_group = gl.groups.get(subgroup_id, lazy=True)
real_group.issues.list()
```

Descendant Groups

Reference

- v4 API:
 - *gitlab.v4.objects.GroupDescendantGroup*
 - *gitlab.v4.objects.GroupDescendantGroupManager*
 - *gitlab.v4.objects.Group.descendant_groups*

Examples

List the descendant groups of a group:

```
descendant_groups = group.descendant_groups.list()
```

Note: Like the GroupSubgroup objects described above, GroupDescendantGroup objects do not expose the same API as the Group objects. Create a new Group object instead if needed, as shown in the subgroup example.

Group custom attributes

Reference

- v4 API:
 - `gitlab.v4.objects.GroupCustomAttribute`
 - `gitlab.v4.objects.GroupCustomAttributeManager`
 - `gitlab.v4.objects.Group.customattributes`
- GitLab API: https://docs.gitlab.com/ce/api/custom_attributes.html

Examples

List custom attributes for a group:

```
attrs = group.customattributes.list()
```

Get a custom attribute for a group:

```
attr = group.customattributes.get(attr_key)
```

Set (create or update) a custom attribute for a group:

```
attr = group.customattributes.set(attr_key, attr_value)
```

Delete a custom attribute for a group:

```
attr.delete()  
# or  
group.customattributes.delete(attr_key)
```

Search groups by custom attribute:

```
group.customattributes.set('role': 'admin')  
gl.groups.list(custom_attributes={'role': 'admin'})
```

Group members

The following constants define the supported access levels:

- `gitlab.const.AccessLevel.GUEST = 10`
- `gitlab.const.AccessLevel.REPORTER = 20`
- `gitlab.const.AccessLevel.DEVELOPER = 30`
- `gitlab.const.AccessLevel.MAINTAINER = 40`
- `gitlab.const.AccessLevel.OWNER = 50`

Reference

- v4 API:
 - `gitlab.v4.objects.GroupMember`
 - `gitlab.v4.objects.GroupMemberManager`
 - `gitlab.v4.objects.GroupMemberAllManager`
 - `gitlab.v4.objects.GroupBillableMember`
 - `gitlab.v4.objects.GroupBillableMemberManager`
 - `gitlab.v4.objects.Group.members`
 - `gitlab.v4.objects.Group.members_all`
 - `gitlab.v4.objects.Group.billable_members`
- GitLab API: <https://docs.gitlab.com/ce/api/members.html>

Billable group members are only available in GitLab EE.

Examples

List only direct group members:

```
members = group.members.list()
```

List the group members recursively (including inherited members through ancestor groups):

```
members = group.members_all.list(get_all=True)
```

Get only direct group member:

```
members = group.members.get(member_id)
```

Get a member of a group, including members inherited through ancestor groups:

```
members = group.members_all.get(member_id)
```

Add a member to the group:

```
member = group.members.create({'user_id': user_id,
                               'access_level': gitlab.const.AccessLevel.GUEST})
```

Update a member (change the access level):

```
member.access_level = gitlab.const.AccessLevel.DEVELOPER
member.save()
```

Remove a member from the group:

```
group.members.delete(member_id)
# or
member.delete()
```

List billable members of a group (top-level groups only):

```
billable_members = group.billable_members.list()
```

Remove a billable member from the group:

```
group.billable_members.delete(member_id)
# or
billable_member.delete()
```

List memberships of a billable member:

```
billable_member.memberships.list()
```

LDAP group links

Add an LDAP group link to an existing GitLab group:

```
ldap_link = group.ldap_group_links.create({
    'provider': 'ldapmain',
    'group_access': gitlab.const.AccessLevel.DEVELOPER,
    'cn': 'ldap_group_cn'
})
```

List a group's LDAP group links:

```
group.ldap_group_links.list()
```

Remove a link:

```
ldap_link.delete()
# or by explicitly providing the CN or filter
group.ldap_group_links.delete(provider='ldapmain', cn='ldap_group_cn')
group.ldap_group_links.delete(provider='ldapmain', filter='(cn=Common Name)')
```

Sync the LDAP groups:

```
group.ldap_sync()
```

You can use the `ldapgroups` manager to list available LDAP groups:

```
# listing (supports pagination)
ldap_groups = gl.ldapgroups.list()
```

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```
# filter using a group name
ldap_groups = gl.ldapgroups.list(search='foo')

# list the groups for a specific LDAP provider
ldap_groups = gl.ldapgroups.list(search='foo', provider='ldapmain')
```

SAML group links

Add a SAML group link to an existing GitLab group:

```
saml_link = group.saml_group_links.create({
    "saml_group_name": "<your_saml_group_name>",
    "access_level": <chosen_access_level>
})
```

List a group's SAML group links:

```
group.saml_group_links.list()
```

Get a SAML group link:

```
group.saml_group_links.get("<your_saml_group_name>")
```

Remove a link:

```
saml_link.delete()
```

Groups hooks

Reference

- v4 API:
 - `gitlab.v4.objects.GroupHook`
 - `gitlab.v4.objects.GroupHookManager`
 - `gitlab.v4.objects.Group.hooks`
- GitLab API: <https://docs.gitlab.com/ce/api/groups.html#hooks>

Examples

List the group hooks:

```
hooks = group.hooks.list()
```

Get a group hook:

```
hook = group.hooks.get(hook_id)
```

Create a group hook:

```
hook = group.hooks.create({'url': 'http://my/action/url', 'push_events': 1})
```

Update a group hook:

```
hook.push_events = 0
hook.save()
```

Delete a group hook:

```
group.hooks.delete(hook_id)
# or
hook.delete()
```

Group push rules

Reference

- v4 API:
 - *gitlab.v4.objects.GroupPushRules*
 - *gitlab.v4.objects.GroupPushRulesManager*
 - *gitlab.v4.objects.Group.pushrules*
- GitLab API: <https://docs.gitlab.com/ee/api/groups.html#push-rules>

Examples

Create group push rules (at least one rule is necessary):

```
group.pushrules.create({'deny_delete_tag': True})
```

Get group push rules:

```
pr = group.pushrules.get()
```

Edit group push rules:

```
pr.branch_name_regex = '^((master|develop|support-\d+|release-\d+\.\.\.|\hotfix-\.\.+)|feature-\.\.+)$'
pr.save()
```

Delete group push rules:

```
pr.delete()
```

7.5.22 Group Access Tokens

Get a list of group access tokens

References

- v4 API:
 - `gitlab.v4.objects.GroupAccessToken`
 - `gitlab.v4.objects.GroupAccessTokenManager`
 - `gitlab.Gitlab.group_access_tokens`
- GitLab API: https://docs.gitlab.com/ee/api/group_access_tokens.html

Examples

List group access tokens:

```
access_tokens = gl.groups.get(1, lazy=True).access_tokens.list()
print(access_tokens[0].name)
```

Get a group access token by id:

```
token = group.access_tokens.get(123)
print(token.name)
```

Create group access token:

```
access_token = gl.groups.get(1).access_tokens.create({"name": "test", "scopes": ["api"],
    "expires_at": "2023-06-06"})
```

Revoke a group access token:

```
gl.groups.get(1).access_tokens.delete(42)
# or
access_token.delete()
```

Rotate a group access token and retrieve its new value:

```
token = group.access_tokens.get(42, lazy=True)
token.rotate()
print(token.token)
# or directly using a token ID
new_token = group.access_tokens.rotate(42)
print(new_token.token)
```

7.5.23 Invitations

Invitations let you invite or add users to a group or project.

Reference

- v4 API:
 - `gitlab.v4.objects.GroupInvitation`
 - `gitlab.v4.objects.GroupInvitationManager`
 - `gitlab.v4.objects.Group.invitations`
 - `gitlab.v4.objects.ProjectInvitation`
 - `gitlab.v4.objects.ProjectInvitationManager`
 - `gitlab.v4.objects.Project.invitations`
- GitLab API: <https://docs.gitlab.com/ce/api/invitations.html>

Examples

Danger: Creating an invitation with `create()` returns a status response, rather than invitation details, because it allows sending multiple invitations at the same time.

Thus when using several emails, you do not create a real invitation object you can manipulate, because python-gitlab cannot know which email to track as the ID.

In that case, use a **lazy** `get()` method shown below using a specific email address to create an invitation object you can manipulate.

Create an invitation:

```
invitation = group_or_project.invitations.create(
    {
        "email": "email@example.com",
        "access_level": gitlab.const.AccessLevel.DEVELOPER,
    }
)
```

List invitations for a group or project:

```
invitations = group_or_project.invitations.list()
```

Warning: As mentioned above, GitLab does not provide a real GET endpoint for a single invitation. We can create a lazy object to later manipulate it.

Update an invitation:

```
invitation = group_or_project.invitations.get("email@example.com", lazy=True)
invitation.access_level = gitlab.const.AccessLevel.DEVELOPER
invitation.save()

# or
group_or_project.invitations.update(
    "email@example.com",
    {"access_level": gitlab.const.AccessLevel.DEVELOPER}
)
```

Delete an invitation:

```
invitation = group_or_project.invitations.get("email@example.com", lazy=True)
invitation.delete()

# or
group_or_project.invitations.delete("email@example.com")
```

7.5.24 Issues

Reported issues

Reference

- v4 API:
 - `gitlab.v4.objects.Issue`
 - `gitlab.v4.objects.IssueManager`
 - `gitlab.Gitlab.issues`
- GitLab API: <https://docs.gitlab.com/ce/api/issues.html>

Examples

List the issues:

```
issues = gl.issues.list()
```

Use the `state` and `label` parameters to filter the results. Use the `order_by` and `sort` attributes to sort the results:

```
open_issues = gl.issues.list(state='opened')
closed_issues = gl.issues.list(state='closed')
tagged_issues = gl.issues.list(labels=['foo', 'bar'])
```

Note: It is not possible to edit or delete Issue objects. You need to create a `ProjectIssue` object to perform changes:

```
issue = gl.issues.list()[0]
project = gl.projects.get(issue.project_id, lazy=True)
editable_issue = project.issues.get(issue.id, lazy=True)
```

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```
editable_issue.title = updated_title
editable_issue.save()
```

Group issues

Reference

- v4 API:
 - `gitlab.v4.objects.GroupIssue`
 - `gitlab.v4.objects.GroupIssueManager`
 - `gitlab.v4.objects.Group.issues`
- GitLab API: <https://docs.gitlab.com/ce/api/issues.html>

Examples

List the group issues:

```
issues = group.issues.list()
# Filter using the state, labels and milestone parameters
issues = group.issues.list(milestone='1.0', state='opened')
# Order using the order_by and sort parameters
issues = group.issues.list(order_by='created_at', sort='desc')
```

Note: It is not possible to edit or delete GroupIssue objects. You need to create a ProjectIssue object to perform changes:

```
issue = group.issues.list()[0]
project = gl.projects.get(issue.project_id, lazy=True)
editable_issue = project.issues.get(issue.iid, lazy=True)
editable_issue.title = updated_title
editable_issue.save()
```

Project issues

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectIssue`
 - `gitlab.v4.objects.ProjectIssueManager`
 - `gitlab.v4.objects.Project.issues`
- GitLab API: <https://docs.gitlab.com/ce/api/issues.html>

Examples

List the project issues:

```
issues = project.issues.list()  
# Filter using the state, labels and milestone parameters  
issues = project.issues.list(milestone='1.0', state='opened')  
# Order using the order_by and sort parameters  
issues = project.issues.list(order_by='created_at', sort='desc')
```

Get a project issue:

```
issue = project.issues.get(issue_iid)
```

Create a new issue:

```
issue = project.issues.create({'title': 'I have a bug',  
                               'description': 'Something useful here.'})
```

Update an issue:

```
issue.labels = ['foo', 'bar']  
issue.save()
```

Close / reopen an issue:

```
# close an issue  
issue.state_event = 'close'  
issue.save()  
# reopen it  
issue.state_event = 'reopen'  
issue.save()
```

Delete an issue (admin or project owner only):

```
project.issues.delete(issue_id)  
# or  
issue.delete()
```

Assign the issues:

```
issue = gl.issues.list()[0]  
issue.assignee_ids = [25, 10, 31, 12]  
issue.save()
```

Note: The Gitlab API explicitly references that the *assignee_id* field is deprecated, so using a list of user IDs for *assignee_ids* is how to assign an issue to a user(s).

Subscribe / unsubscribe from an issue:

```
issue.subscribe()  
issue.unsubscribe()
```

Move an issue to another project:

```
issue.move(other_project_id)
```

Reorder an issue on a board:

```
issue.reorder(move_after_id=2, move_before_id=3)
```

Make an issue as todo:

```
issue.todo()
```

Get time tracking stats:

```
issue.time_stats()
```

On recent versions of Gitlab the time stats are also returned as an issue object attribute:

```
issue = project.issue.get(iid)
print(issue.attributes['time_stats'])
```

Set a time estimate for an issue:

```
issue.time_estimate('3h30m')
```

Reset a time estimate for an issue:

```
issue.reset_time_estimate()
```

Add spent time for an issue:

```
issue.add_spent_time('3h30m')
```

Reset spent time for an issue:

```
issue.reset_spent_time()
```

Get user agent detail for the issue (admin only):

```
detail = issue.user_agent_detail()
```

Get the list of merge requests that will close an issue when merged:

```
mrs = issue.closed_by()
```

Get the merge requests related to an issue:

```
mrs = issue.related_merge_requests()
```

Get the list of participants:

```
users = issue.participants()
```

Get the list of iteration events:

```
iteration_events = issue.resource_iteration_events.list()
```

Get the list of weight events:

```
weight_events = issue.resource_weight_events.list()
```

Issue links

Reference

- v4 API:
 - *gitlab.v4.objects.ProjectIssueLink*
 - *gitlab.v4.objects.ProjectIssueLinkManager*
 - *gitlab.v4.objects.ProjectIssue.links*
- GitLab API: https://docs.gitlab.com/ee/api/issue_links.html

Examples

List the issues linked to i1:

```
links = i1.links.list()
```

Link issue i1 to issue i2:

```
data = {  
    'target_project_id': i2.project_id,  
    'target_issue_iid': i2.iid  
}  
src_issue, dest_issue = i1.links.create(data)
```

Note: The `create()` method returns the source and destination `ProjectIssue` objects, not a `ProjectIssueLink` object.

Delete a link:

```
i1.links.delete(issue_link_id)
```

Issues statistics

Reference

- v4 API:
 - *gitlab.v4.objects.IssuesStatistics*
 - *gitlab.v4.objects.IssuesStatisticsManager*
 - *gitlab.issues_statistics*
 - *gitlab.v4.objects.GroupIssuesStatistics*
 - *gitlab.v4.objects.GroupIssuesStatisticsManager*

- `gitlab.v4.objects.Group.issues_statistics`
- `gitlab.v4.objects.ProjectIssuesStatistics`
- `gitlab.v4.objects.ProjectIssuesStatisticsManager`
- `gitlab.v4.objects.Project.issues_statistics`
- GitLab API: https://docs.gitlab.com/ce/api/issues_statistics.htm

Examples

Get statistics of all issues created by the current user:

```
statistics = gl.issues_statistics.get()
```

Get statistics of all issues the user has access to:

```
statistics = gl.issues_statistics.get(scope='all')
```

Get statistics of issues for the user with foobar in the title or the description:

```
statistics = gl.issues_statistics.get(search='foobar')
```

Get statistics of all issues in a group:

```
statistics = group.issues_statistics.get()
```

Get statistics of issues in a group with foobar in the title or the description:

```
statistics = group.issues_statistics.get(search='foobar')
```

Get statistics of all issues in a project:

```
statistics = project.issues_statistics.get()
```

Get statistics of issues in a project with foobar in the title or the description:

```
statistics = project.issues_statistics.get(search='foobar')
```

7.5.25 Iterations

Reference

- v4 API:
 - `gitlab.v4.objects.GroupIteration`
 - `gitlab.v4.objects.GroupIterationManager`
 - `gitlab.v4.objects.Group.iterations`
 - `gitlab.v4.objects.ProjectIterationManager`
 - `gitlab.v4.objects.Project.iterations`
- GitLab API: <https://docs.gitlab.com/ee/api/iterations.html>

Examples

Note: GitLab no longer has project iterations. Using a project endpoint returns the ancestor groups' iterations.

List iterations for a project's ancestor groups:

```
iterations = project.iterations.list()
```

List iterations for a group:

```
iterations = group.iterations.list()
```

7.5.26 CI/CD job token scope

Reference

- v4 API:
 - *gitlab.v4.objects.ProjectJobTokenScope*
 - *gitlab.v4.objects.ProjectJobTokenScopeManager*
 - *gitlab.v4.objects.Project.job_token_scope*
- GitLab API: https://docs.gitlab.com/ee/api/project_job_token_scopes.html

Examples

Warning: The GitLab API does **not** return any data when saving or updating the job token scope settings. You need to call `refresh()` (or `get()` a new object) as shown below to get the latest state.

Get a project's CI/CD job token access settings:

```
scope = project.job_token_scope.get()  
print(scope.inbound_enabled)  
# True
```

Update the job token scope settings:

```
scope.enabled = False  
scope.save()
```

Warning: As you can see above, the attributes you receive from and send to the GitLab API are not consistent. GitLab returns `inbound_enabled` and `outbound_enabled`, but expects `enabled`, which only refers to the inbound scope. This is important when accessing and updating these attributes.

Or update the job token scope settings directly:

```
project.job_token_scope.update(new_data={"enabled": True})
```

Refresh the current state of job token scope:

```
scope.refresh()
print(scope.inbound_enabled)
# False
```

7.5.27 Keys

Keys

Reference

- v4 API
 - `gitlab.v4.objects.Key`
 - `gitlab.v4.objects.KeyManager`
 - `gitlab.Gitlab.keys`
- GitLab API: <https://docs.gitlab.com/ce/api/keys.html>

Examples

Get an ssh key by its id (requires admin access):

```
key = gl.keys.get(key_id)
```

Get an ssh key (requires admin access) or a deploy key by its fingerprint:

```
key = gl.keys.get(fingerprint="SHA256:ERJJ/OweAM6jA80jj/gXs4N5fqUaREEJnz/EyfywfXY")
```

7.5.28 Issue boards

Boards

Boards are a visual representation of existing issues for a project or a group. Issues can be moved from one list to the other to track progress and help with priorities.

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectBoard`
 - `gitlab.v4.objects.ProjectBoardManager`
 - `gitlab.v4.objects.Project.boards`
 - `gitlab.v4.objects.GroupBoard`

- `gitlab.v4.objects.GroupBoardManager`
 - `gitlab.v4.objects.Group.boards`
- GitLab API:
 - <https://docs.gitlab.com/ce/api/boards.html>
 - https://docs.gitlab.com/ce/api/group_boards.html

Examples

Get the list of existing boards for a project or a group:

```
# item is a Project or a Group
boards = project_or_group.boards.list()
```

Get a single board for a project or a group:

```
board = project_or_group.boards.get(board_id)
```

Create a board:

```
board = project_or_group.boards.create({'name': 'new-board'})
```

Note: Board creation is not supported in the GitLab CE edition.

Delete a board:

```
board.delete()
# or
project_or_group.boards.delete(board_id)
```

Note: Board deletion is not supported in the GitLab CE edition.

Board lists

Boards are made of lists of issues. Each list is associated to a label, and issues tagged with this label automatically belong to the list.

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectBoardList`
 - `gitlab.v4.objects.ProjectBoardListManager`
 - `gitlab.v4.objects.ProjectBoard.lists`
 - `gitlab.v4.objects.GroupBoardList`
 - `gitlab.v4.objects.GroupBoardListManager`

- *gitlab.v4.objects.GroupBoard.lists*
- GitLab API:
 - <https://docs.gitlab.com/ce/api/boards.html>
 - https://docs.gitlab.com/ce/api/group_boards.html

Examples

List the issue lists for a board:

```
b_lists = board.lists.list()
```

Get a single list:

```
b_list = board.lists.get(list_id)
```

Create a new list:

```
# First get a ProjectLabel
label = get_or_create_label()
# Then use its ID to create the new board list
b_list = board.lists.create({'label_id': label.id})
```

Change a list position. The first list is at position 0. Moving a list will set it at the given position and move the following lists up a position:

```
b_list.position = 2
b_list.save()
```

Delete a list:

```
b_list.delete()
```

7.5.29 Labels

Project labels

Reference

- v4 API:
 - *gitlab.v4.objects.ProjectLabel*
 - *gitlab.v4.objects.ProjectLabelManager*
 - *gitlab.v4.objects.Project.labels*
- GitLab API: <https://docs.gitlab.com/ce/api/labels.html>

Examples

List labels for a project:

```
labels = project.labels.list()
```

Create a label for a project:

```
label = project.labels.create({'name': 'foo', 'color': '#8899aa'})
```

Update a label for a project:

```
# change the name of the label:  
label.new_name = 'bar'  
label.save()  
# change its color:  
label.color = '#112233'  
label.save()
```

Promote a project label to a group label:

```
label.promote()
```

Delete a label for a project:

```
project.labels.delete(label_id)  
# or  
label.delete()
```

Manage labels in issues and merge requests:

```
# Labels are defined as lists in issues and merge requests. The labels must  
# exist.  
issue = p.issues.create({'title': 'issue title',  
                        'description': 'issue description',  
                        'labels': ['foo']})  
issue.labels.append('bar')  
issue.save()
```

Label events

Resource label events keep track about who, when, and which label was added or removed to an issuable.

Group epic label events are only available in the EE edition.

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectIssueResourceLabelEvent`
 - `gitlab.v4.objects.ProjectIssueResourceLabelEventManager`
 - `gitlab.v4.objects.ProjectIssue.resourcelabelevents`
 - `gitlab.v4.objects.ProjectMergeRequestResourceLabelEvent`
 - `gitlab.v4.objects.ProjectMergeRequestResourceLabelEventManager`
 - `gitlab.v4.objects.ProjectMergeRequest.resourcelabelevents`
 - `gitlab.v4.objects.GroupEpicResourceLabelEvent`
 - `gitlab.v4.objects.GroupEpicResourceLabelEventManager`
 - `gitlab.v4.objects.GroupEpic.resourcelabelevents`
- GitLab API: https://docs.gitlab.com/ee/api/resource_label_events.html

Examples

Get the events for a resource (issue, merge request or epic):

```
events = resource.resourcelabelevents.list()
```

Get a specific event for a resource:

```
event = resource.resourcelabelevents.get(event_id)
```

7.5.30 Notification settings

You can define notification settings globally, for groups and for projects. Valid levels are defined as constants:

- `gitlab.const.NotificationLevel.DISABLED`
- `gitlab.const.NotificationLevel.PARTICIPATING`
- `gitlab.const.NotificationLevel.WATCH`
- `gitlab.const.NotificationLevel.GLOBAL`
- `gitlab.const.NotificationLevel.MENTION`
- `gitlab.const.NotificationLevel.CUSTOM`

You get access to fine-grained settings if you use the `NOTIFICATION_LEVEL_CUSTOM` level.

Reference

- v4 API:
 - `gitlab.v4.objects.NotificationSettings`
 - `gitlab.v4.objects.NotificationSettingsManager`
 - `gitlab.Gitlab.notificationsettings`
 - `gitlab.v4.objects.GroupNotificationSettings`
 - `gitlab.v4.objects.GroupNotificationSettingsManager`
 - `gitlab.v4.objects.Group.notificationsettings`
 - `gitlab.v4.objects.ProjectNotificationSettings`
 - `gitlab.v4.objects.ProjectNotificationSettingsManager`
 - `gitlab.v4.objects.Project.notificationsettings`
- GitLab API: https://docs.gitlab.com/ce/api/notification_settings.html

Examples

Get the notifications settings:

```
# global settings
settings = gl.notificationsettings.get()
# for a group
settings = gl.groups.get(group_id).notificationsettings.get()
# for a project
settings = gl.projects.get(project_id).notificationsettings.get()
```

Update the notifications settings:

```
# use a predefined level
settings.level = gitlab.const.NotificationLevel.WATCH

# create a custom setup
settings.level = gitlab.const.NotificationLevel.CUSTOM
settings.save()  # will create additional attributes, but not mandatory

settings.new_merge_request = True
settings.new_issue = True
settings.new_note = True
settings.save()
```

7.5.31 Merge Trains

Reference

- v4 API:
 - *gitlab.v4.objects.ProjectMergeTrain*
 - *gitlab.v4.objects.ProjectMergeTrainManager*
 - *gitlab.v4.objects.Project.merge_trains*
- GitLab API: https://docs.gitlab.com/ee/api/merge_trains.html

Examples

List merge trains for a project:

```
merge_trains = project.merge_trains.list()
```

List active merge trains for a project:

```
merge_trains = project.merge_trains.list(scope="active")
```

List completed (have been merged) merge trains for a project:

```
merge_trains = project.merge_trains.list(scope="complete")
```

7.5.32 Merge requests

You can use merge requests to notify a project that a branch is ready for merging. The owner of the target project can accept the merge request.

Merge requests are linked to projects, but they can be listed globally or for groups.

Group and global listing

Reference

- v4 API:
 - *gitlab.v4.objects.GroupMergeRequest*
 - *gitlab.v4.objects.GroupMergeRequestManager*
 - *gitlab.v4.objects.Group.mergerequests*
 - *gitlab.v4.objects.MergeRequest*
 - *gitlab.v4.objects.MergeRequestManager*
 - *gitlab.Gitlab.mergerequests*
- GitLab API: https://docs.gitlab.com/ce/api/merge_requests.html

Examples

List the merge requests created by the user of the token on the GitLab server:

```
mrs = gl.mergerequests.list()
```

List the merge requests available on the GitLab server:

```
mrs = gl.mergerequests.list(scope="all")
```

List the merge requests for a group:

```
group = gl.groups.get('mygroup')
mrs = group.mergerequests.list()
```

Note: It is not possible to edit or delete `MergeRequest` and `GroupMergeRequest` objects. You need to create a `ProjectMergeRequest` object to apply changes:

```
mr = group.mergerequests.list()[0]
project = gl.projects.get(mr.project_id, lazy=True)
editable_mr = project.mergerequests.get(mr.iid, lazy=True)
editable_mr.title = updated_title
editable_mr.save()
```

Project merge requests

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectMergeRequest`
 - `gitlab.v4.objects.ProjectMergeRequestManager`
 - `gitlab.v4.objects.Project.mergerequests`
- GitLab API: https://docs.gitlab.com/ce/api/merge_requests.html

Examples

List MRs for a project:

```
mrs = project.mergerequests.list()
```

You can filter and sort the returned list with the following parameters:

- **state:** state of the MR. It can be one of `all`, `merged`, `opened`, `closed` or `locked`
- **order_by:** sort by `created_at` or `updated_at`
- **sort:** sort order (`asc` or `desc`)

You can find a full updated list of parameters here: https://docs.gitlab.com/ee/api/merge_requests.html#list-merge-requests

For example:

```
mrs = project.mergerequests.list(state='merged', order_by='updated_at')
```

Get a single MR:

```
mr = project.mergerequests.get(mr_iid)
```

Get MR reviewer details::

```
mr = project.mergerequests.get(mr_iid) reviewers = mr.reviewer_details.list()
```

Create a MR:

```
mr = project.mergerequests.create({'source_branch': 'cool_feature',
                                    'target_branch': 'main',
                                    'title': 'merge cool feature',
                                    'labels': ['label1', 'label2']})
```

Update a MR:

```
mr.description = 'New description'
mr.labels = ['foo', 'bar']
mr.save()
```

Change the state of a MR (close or reopen):

```
mr.state_event = 'close' # or 'reopen'
mr.save()
```

Delete a MR:

```
project.mergerequests.delete(mr_iid)
# or
mr.delete()
```

Accept a MR:

```
mr.merge()
```

Schedule a MR to merge after the pipeline(s) succeed:

```
mr.merge(merge_when_pipeline_succeeds=True)
```

Cancel a MR from merging when the pipeline succeeds:

```
# Cancel a MR from being merged that had been previously set to
# 'merge_when_pipeline_succeeds=True'
mr.cancel_merge_when_pipeline_succeeds()
```

List commits of a MR:

```
commits = mr.commits()
```

List the changes of a MR:

```
changes = mr.changes()
```

List issues that will close on merge:

```
mr.closes_issues()
```

Subscribe to / unsubscribe from a MR:

```
mr.subscribe()  
mr.unsubscribe()
```

Mark a MR as todo:

```
mr.todo()
```

List the diffs for a merge request:

```
diffs = mr.diffs.list()
```

Get a diff for a merge request:

```
diff = mr.diffs.get(diff_id)
```

Get time tracking stats:

```
time_stats = mr.time_stats()
```

On recent versions of Gitlab the time stats are also returned as a merge request object attribute:

```
mr = project.mergerequests.get(id)  
print(mr.attributes['time_stats'])
```

Set a time estimate for a merge request:

```
mr.time_estimate('3h30m')
```

Reset a time estimate for a merge request:

```
mr.reset_time_estimate()
```

Add spent time for a merge request:

```
mr.add_spent_time('3h30m')
```

Reset spent time for a merge request:

```
mr.reset_spent_time()
```

Get user agent detail for the issue (admin only):

```
detail = issue.user_agent_detail()
```

Attempt to rebase an MR:

```
mr.rebase()
```

Clear all approvals of a merge request (possible with project or group access tokens only):

```
mr.reset_approvals()
```

Get status of a rebase for an MR:

```
mr = project.mergerequests.get(mr_id, include_rebase_in_progress=True)
print(mr.rebase_in_progress, mr.merge_error)
```

For more info see: https://docs.gitlab.com/ee/api/merge_requests.html#rebase-a-merge-request

Attempt to merge changes between source and target branch:

```
response = mr.merge_ref()
print(response['commit_id'])
```

Merge Request Pipelines

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectMergeRequestPipeline`
 - `gitlab.v4.objects.ProjectMergeRequestPipelineManager`
 - `gitlab.v4.objects.ProjectMergeRequest.pipelines`
- GitLab API: https://docs.gitlab.com/ee/api/merge_requests.html#list-mr-pipelines

Examples

List pipelines for a merge request:

```
pipelines = mr.pipelines.list()
```

Create a pipeline for a merge request:

```
pipeline = mr.pipelines.create()
```

7.5.33 Merge request approvals settings

Merge request approvals can be defined at the project level or at the merge request level.

References

- v4 API:
 - `gitlab.v4.objects.ProjectApproval`
 - `gitlab.v4.objects.ProjectApprovalManager`
 - `gitlab.v4.objects.ProjectApprovalRule`
 - `gitlab.v4.objects.ProjectApprovalRuleManager`
 - `gitlab.v4.objects.Project.approvals`
 - `gitlab.v4.objects.ProjectMergeRequestApproval`
 - `gitlab.v4.objects.ProjectMergeRequestApprovalManager`
 - `gitlab.v4.objects.ProjectMergeRequest.approvals`
 - `gitlab.v4.objects.ProjectMergeRequestApprovalRule`
 - `gitlab.v4.objects.ProjectMergeRequestApprovalRuleManager`
 - `gitlab.v4.objects.ProjectMergeRequest.approval_rules`
 - `gitlab.v4.objects.ProjectMergeRequestApprovalState`
 - `gitlab.v4.objects.ProjectMergeRequestApprovalStateManager`
 - `gitlab.v4.objects.ProjectMergeRequest.approval_state`
- GitLab API: https://docs.gitlab.com/ee/api/merge_request_approvals.html

Examples

List project-level MR approval rules:

```
p_mrmas = project.approvalrules.list()
```

Change project-level MR approval rule:

```
p_approvalrule.user_ids = [234]  
p_approvalrule.save()
```

Delete project-level MR approval rule:

```
p_approvalrule.delete()
```

Get project-level or MR-level MR approvals settings:

```
p_mrmas = project.approvals.get()  
  
mr_mrmas = mr.approvals.get()
```

Get MR-level approval state:

```
mr_approval_state = mr.approval_state.get()
```

Change project-level or MR-level MR approvals settings:

```
p_mrmas.approvals_before_merge = 2
p_mrmas.save()

mr.approvals.set_approvers(approvals_required=1)
# or
mr_mrmas.approvals_required = 1
mr_mrmas.save()
```

Create a new MR-level approval rule or change an existing MR-level approval rule:

```
mr.approvals.set_approvers(approvals_required = 1, approver_ids=[105],
                            approver_group_ids=[653, 654],
                            approval_rule_name="my MR custom approval rule")
```

List MR-level MR approval rules:

```
mr.approval_rules.list()
```

Get a single MR approval rule:

```
approval_rule_id = 123
mr_approvalrule = mr.approval_rules.get(approval_rule_id)
```

Delete MR-level MR approval rule:

```
rules = mr.approval_rules.list()
rules[0].delete()

# or
mr.approval_rules.delete(approval_id)
```

Change MR-level MR approval rule:

```
mr_approvalrule.user_ids = [105]
mr_approvalrule.approvals_required = 2
mr_approvalrule.group_ids = [653, 654]
mr_approvalrule.save()
```

Create a MR-level MR approval rule:

```
mr.approval_rules.create({
    "name": "my MR custom approval rule",
    "approvals_required": 2,
    "rule_type": "regular",
    "user_ids": [105],
    "group_ids": [653, 654],
})
```

7.5.34 Milestones

Project milestones

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectMilestone`
 - `gitlab.v4.objects.ProjectMilestoneManager`
 - `gitlab.v4.objects.Project.milestones`
 - `gitlab.v4.objects.GroupMilestone`
 - `gitlab.v4.objects.GroupMilestoneManager`
 - `gitlab.v4.objects.Group.milestones`
- GitLab API:
 - <https://docs.gitlab.com/ce/api/milestones.html>
 - https://docs.gitlab.com/ce/api/group_milestones.html

Examples

List the milestones for a project or a group:

```
p_milestones = project.milestones.list()
g_milestones = group.milestones.list()
```

You can filter the list using the following parameters:

- `iids`: unique IDs of milestones for the project
- `state`: either `active` or `closed`
- `search`: to search using a string

```
p_milestones = project.milestones.list(state='closed')
g_milestones = group.milestones.list(state='active')
```

Get a single milestone:

```
p_milestone = project.milestones.get(milestone_id)
g_milestone = group.milestones.get(milestone_id)
```

Create a milestone:

```
milestone = project.milestones.create({'title': '1.0'})
```

Edit a milestone:

```
milestone.description = 'v 1.0 release'
milestone.save()
```

Change the state of a milestone (activate / close):

```
# close a milestone
milestone.state_event = 'close'
milestone.save()

# activate a milestone
milestone.state_event = 'activate'
milestone.save()
```

Promote a project milestone:

```
milestone.promote()
```

List the issues related to a milestone:

```
issues = milestone.issues()
```

List the merge requests related to a milestone:

```
merge_requests = milestone.merge_requests()
```

Milestone events

Resource milestone events keep track of what happens to GitLab issues and merge requests.

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectIssueResourceMilestoneEvent`
 - `gitlab.v4.objects.ProjectIssueResourceMilestoneEventManager`
 - `gitlab.v4.objects.ProjectIssue.resourcemilestoneevents`
 - `gitlab.v4.objects.ProjectMergeRequestResourceMilestoneEvent`
 - `gitlab.v4.objects.ProjectMergeRequestResourceMilestoneEventManager`
 - `gitlab.v4.objects.ProjectMergeRequest.resourcemilestoneevents`
- GitLab API: https://docs.gitlab.com/ee/api/resource_milestone_events.html

Examples

Get milestones for a resource (issue, merge request):

```
milestones = resource.resourcemilestoneevents.list()
```

Get a specific milestone for a resource:

```
milestone = resource.resourcemilestoneevents.get(milestone_id)
```

7.5.35 Namespaces

Reference

- v4 API:
 - `gitlab.v4.objects.Namespace`
 - `gitlab.v4.objects.NamespaceManager`
 - `gitlab.Gitlab.namespaces`
- GitLab API: <https://docs.gitlab.com/ce/api/namespaces.html>

Examples

List namespaces:

```
namespaces = gl.namespaces.list()
```

Search namespaces:

```
namespaces = gl.namespaces.list(search='foo')
```

Get a namespace by ID or path:

```
namespace = gl.namespaces.get("my-namespace")
```

Get existence of a namespace by path:

```
namespace = gl.namespaces.exists("new-namespace")

if namespace.exists:
    # get suggestions of namespaces that don't already exist
    print(namespace.suggests)
```

7.5.36 Notes

You can manipulate notes (comments) on group epics, project issues, merge requests and snippets.

Reference

- v4 API:
 - Epics:
 - `gitlab.v4.objects.GroupEpicNote`
 - `gitlab.v4.objects.GroupEpicNoteManager`
 - `gitlab.v4.objects.GroupEpic.notes`
 - Issues:
 - `gitlab.v4.objects.ProjectIssueNote`
 - `gitlab.v4.objects.ProjectIssueNoteManager`

- `gitlab.v4.objects.ProjectIssue.notes`

MergeRequests:

- `gitlab.v4.objects.ProjectMergeRequestNote`
- `gitlab.v4.objects.ProjectMergeRequestNoteManager`
- `gitlab.v4.objects.ProjectMergeRequest.notes`

Snippets:

- `gitlab.v4.objects.ProjectSnippetNote`
- `gitlab.v4.objects.ProjectSnippetNoteManager`
- `gitlab.v4.objects.ProjectSnippet.notes`

- GitLab API: <https://docs.gitlab.com/ce/api/notes.html>

Examples

List the notes for a resource:

```
e_notes = epic.notes.list()
i_notes = issue.notes.list()
mr_notes = mr.notes.list()
s_notes = snippet.notes.list()
```

Get a note for a resource:

```
e_note = epic.notes.get(note_id)
i_note = issue.notes.get(note_id)
mr_note = mr.notes.get(note_id)
s_note = snippet.notes.get(note_id)
```

Create a note for a resource:

```
e_note = epic.notes.create({'body': 'note content'})
i_note = issue.notes.create({'body': 'note content'})
mr_note = mr.notes.create({'body': 'note content'})
s_note = snippet.notes.create({'body': 'note content'})
```

Update a note for a resource:

```
note.body = 'updated note content'
note.save()
```

Delete a note for a resource:

```
note.delete()
```

7.5.37 Packages

Packages allow you to utilize GitLab as a private repository for a variety of common package managers, as well as GitLab's generic package registry.

Project Packages

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectPackage`
 - `gitlab.v4.objects.ProjectPackageManager`
 - `gitlab.v4.objects.Project.packages`
- GitLab API: <https://docs.gitlab.com/ee/api/packages.html#within-a-project>

Examples

List the packages in a project:

```
packages = project.packages.list()
```

Filter the results by `package_type` or `package_name`

```
packages = project.packages.list(package_type='pypi')
```

Get a specific package of a project by id:

```
package = project.packages.get(1)
```

Delete a package from a project:

```
package.delete()  
# or  
project.packages.delete(package.id)
```

Group Packages

Reference

- v4 API:
 - `gitlab.v4.objects.GroupPackage`
 - `gitlab.v4.objects.GroupPackageManager`
 - `gitlab.v4.objects.Group.packages`
- GitLab API: <https://docs.gitlab.com/ee/api/packages.html#within-a-group>

Examples

List the packages in a group:

```
packages = group.packages.list()
```

Filter the results by package_type or package_name

```
packages = group.packages.list(package_type='pypi')
```

Project Package Files

Reference

- v4 API:
 - *gitlab.v4.objects.ProjectPackageFile*
 - *gitlab.v4.objects.ProjectPackageManager*
 - *gitlab.v4.objects.ProjectPackage.package_files*
- GitLab API: <https://docs.gitlab.com/ee/api/packages.html#list-package-files>

Examples

List package files for package in project:

```
package = project.packages.get(1)
package_files = package.package_files.list()
```

Delete a package file in a project:

```
package = project.packages.get(1)
file = package.package_files.list()[0]
file.delete()
```

Project Package Pipelines

Reference

- v4 API:
 - *gitlab.v4.objects.ProjectPackagePipeline*
 - *gitlab.v4.objects.ProjectPackagePipelineManager*
 - *gitlab.v4.objects.ProjectPackage.pipelines*
- GitLab API: <https://docs.gitlab.com/ee/api/packages.html#list-package-pipelines>

Examples

List package pipelines for package in project:

```
package = project.packages.get(1)
package_pipelines = package.pipelines.list()
```

Generic Packages

You can use python-gitlab to upload and download generic packages.

Reference

- v4 API:
 - `gitlab.v4.objects.GenericPackage`
 - `gitlab.v4.objects.GenericPackageManager`
 - `gitlab.v4.objects.Project.generic_packages`
- GitLab API: https://docs.gitlab.com/ee/user/packages/generic_packages

Examples

Upload a generic package to a project:

```
project = gl.projects.get(1, lazy=True)
package = project.generic_packages.upload(
    package_name="hello-world",
    package_version="v1.0.0",
    file_name="hello.tar.gz",
    path="/path/to/local/hello.tar.gz"
)
```

Download a project's generic package:

```
project = gl.projects.get(1, lazy=True)
package = project.generic_packages.download(
    package_name="hello-world",
    package_version="v1.0.0",
    file_name="hello.tar.gz",
)
```

Hint: You can use the Packages API described above to find packages and retrieve the metadata you need download them.

7.5.38 Pages domains

Admin

References

- v4 API:
 - `gitlab.v4.objects.PagesDomain`
 - `gitlab.v4.objects.PagesDomainManager`
 - `gitlab.Gitlab.pagesdomains`
- GitLab API: https://docs.gitlab.com/ce/api/pages_domains.html#list-all-pages-domains

Examples

List all the existing domains (admin only):

```
domains = gl.pagesdomains.list()
```

Project pages domain

References

- v4 API:
 - `gitlab.v4.objects.ProjectPagesDomain`
 - `gitlab.v4.objects.ProjectPagesDomainManager`
 - `gitlab.v4.objects.Project.pagesdomains`
- GitLab API: https://docs.gitlab.com/ce/api/pages_domains.html#list-pages-domains

Examples

List domains for a project:

```
domains = project.pagesdomains.list()
```

Get a single domain:

```
domain = project.pagesdomains.get('d1.example.com')
```

Create a new domain:

```
domain = project.pagesdomains.create({'domain': 'd2.example.com'})
```

Update an existing domain:

```
domain.certificate = open('d2.crt').read()
domain.key = open('d2.key').read()
domain.save()
```

Delete an existing domain:

```
domain.delete  
# or  
project.pagesdomains.delete('d2.example.com')
```

7.5.39 Personal Access Tokens

References

- v4 API:
 - `gitlab.v4.objects.PersonalAccessToken`
 - `gitlab.v4.objects.PersonalAccessTokenManager`
 - `gitlab.Gitlab.personal_access_tokens`
 - `gitlab.v4.objects.UserPersonalAccessToken`
 - `gitlab.v4.objects.UserPersonalAccessTokenManager`
 - `gitlab.Gitlab.User.personal_access_tokens`
- GitLab API:
 - https://docs.gitlab.com/ee/api/personal_access_tokens.html
 - <https://docs.gitlab.com/ee/api/users.html#create-a-personal-access-token>

Examples

List personal access tokens:

```
access_tokens = gl.personal_access_tokens.list()  
print(access_tokens[0].name)
```

List personal access tokens from other user_id (admin only):

```
access_tokens = gl.personal_access_tokens.list(user_id=25)
```

Get a personal access token by id:

```
gl.personal_access_tokens.get(123)
```

Get the personal access token currently used:

```
gl.personal_access_tokens.get("self")
```

Revoke a personal access token fetched via list:

```
access_token = access_tokens[0]  
access_token.delete()
```

Revoke a personal access token by id:

```
gl.personal_access_tokens.delete(123)
```

Revoke the personal access token currently used:

```
gl.personal_access_tokens.delete("self")
```

Rotate a personal access token and retrieve its new value:

```
token = gl.personal_access_tokens.get(42, lazy=True)
token.rotate()
print(token.token)
# or directly using a token ID
new_token_dict = gl.personal_access_tokens.rotate(42)
print(new_token_dict)
```

Create a personal access token for a user (admin only):

```
user = gl.users.get(25, lazy=True)
access_token = user.personal_access_tokens.create({"name": "test", "scopes": "api"})
```

Note: As you can see above, you can only create personal access tokens via the Users API, but you cannot revoke these objects directly. This is because the create API uses a different endpoint than the list and revoke APIs. You need to fetch the token via the list or get API first to revoke it.

7.5.40 Pipelines and Jobs

Project pipelines

A pipeline is a group of jobs executed by GitLab CI.

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectPipeline`
 - `gitlab.v4.objects.ProjectPipelineManager`
 - `gitlab.v4.objects.Project.pipelines`
- GitLab API: <https://docs.gitlab.com/ce/api/pipelines.html>

Examples

List pipelines for a project:

```
pipelines = project.pipelines.list()
```

Get a pipeline for a project:

```
pipeline = project.pipelines.get(pipeline_id)
```

Get variables of a pipeline:

```
variables = pipeline.variables.list()
```

Create a pipeline for a particular reference with custom variables:

```
pipeline = project.pipelines.create({'ref': 'main', 'variables': [{key': 'MY_VARIABLE',  
↳ value': 'hello'}]})
```

Retry the failed builds for a pipeline:

```
pipeline.retry()
```

Cancel builds in a pipeline:

```
pipeline.cancel()
```

Delete a pipeline:

```
pipeline.delete()
```

Triggers

Triggers provide a way to interact with the GitLab CI. Using a trigger a user or an application can run a new build/job for a specific commit.

Reference

- v4 API:
 - *gitlab.v4.objects.ProjectTrigger*
 - *gitlab.v4.objects.ProjectTriggerManager*
 - *gitlab.v4.objects.Project.triggers*
- GitLab API: https://docs.gitlab.com/ce/api/pipeline_triggers.html

Examples

List triggers:

```
triggers = project.triggers.list()
```

Get a trigger:

```
trigger = project.triggers.get(trigger_token)
```

Create a trigger:

```
trigger = project.triggers.create({'description': 'mytrigger'})
```

Remove a trigger:

```
project.triggers.delete(trigger_token)
# or
trigger.delete()
```

Full example with wait for finish:

```
def get_or_create_trigger(project):
    trigger_decription = 'my_trigger_id'
    for t in project.triggers.list():
        if t.description == trigger_decription:
            return t
    return project.triggers.create({'description': trigger_decription})

trigger = get_or_create_trigger(project)
pipeline = project.trigger_pipeline('main', trigger.token, variables={"DEPLOY_ZONE": "us-west1"})
while pipeline.finished_at is None:
    pipeline.refresh()
    time.sleep(1)
```

You can trigger a pipeline using token authentication instead of user authentication. To do so create an anonymous Gitlab instance and use lazy objects to get the associated project:

```
gl = gitlab.Gitlab(URL)  # no authentication
project = gl.projects.get(project_id, lazy=True)  # no API call
project.trigger_pipeline('main', trigger_token)
```

Reference: <https://docs.gitlab.com/ee/ci/triggers/#trigger-token>

Pipeline schedules

You can schedule pipeline runs using a cron-like syntax. Variables can be associated with the scheduled pipelines.

Reference

- v4 API
 - `gitlab.v4.objects.ProjectPipelineSchedule`
 - `gitlab.v4.objects.ProjectPipelineScheduleManager`
 - `gitlab.v4.objects.Project.pipelineschedules`
 - `gitlab.v4.objects.ProjectPipelineScheduleVariable`
 - `gitlab.v4.objects.ProjectPipelineScheduleVariableManager`
 - `gitlab.v4.objects.ProjectPipelineSchedule.variables`
 - `gitlab.v4.objects.ProjectPipelineSchedulePipeline`
 - `gitlab.v4.objects.ProjectPipelineSchedulePipelineManager`
 - `gitlab.v4.objects.ProjectPipelineSchedule.pipelines`
- GitLab API: https://docs.gitlab.com/ce/api/pipeline_schedules.html

Examples

List pipeline schedules:

```
scheds = project.pipelineschedules.list()
```

Get a single schedule:

```
sched = project.pipelineschedules.get(schedule_id)
```

Create a new schedule:

```
sched = project.pipelineschedules.create({  
    'ref': 'main',  
    'description': 'Daily test',  
    'cron': '0 1 * * *'})
```

Update a schedule:

```
sched.cron = '1 2 * * *'  
sched.save()
```

Take ownership of a schedule:

```
sched.take_ownership()
```

Trigger a pipeline schedule immediately:

```
sched = projects.pipelineschedules.get(schedule_id)  
sched.play()
```

Delete a schedule:

```
sched.delete()
```

List schedule variables:

```
# note: you need to use get() to retrieve the schedule variables. The
# attribute is not present in the response of a list() call
sched = projects.pipelineschedules.get(schedule_id)
vars = sched.attributes['variables']
```

Create a schedule variable:

```
var = sched.variables.create({'key': 'foo', 'value': 'bar'})
```

Edit a schedule variable:

```
var.value = 'new_value'
var.save()
```

Delete a schedule variable:

```
var.delete()
```

List all pipelines triggered by a pipeline schedule:

```
pipelines = sched.pipelines.list()
```

Jobs

Jobs are associated to projects, pipelines and commits. They provide information on the jobs that have been run, and methods to manipulate them.

Reference

- v4 API
 - *gitlab.v4.objects.ProjectJob*
 - *gitlab.v4.objects.ProjectJobManager*
 - *gitlab.v4.objects.Project.jobs*
- GitLab API: <https://docs.gitlab.com/ce/api/jobs.html>

Examples

Jobs are usually automatically triggered, but you can explicitly trigger a new job:

```
project.trigger_build('main', trigger_token,
                      {'extra_var1': 'foo', 'extra_var2': 'bar'})
```

List jobs for the project:

```
jobs = project.jobs.list()
```

Get a single job:

```
project.jobs.get(job_id)
```

List the jobs of a pipeline:

```
project = gl.projects.get(project_id)
pipeline = project.pipelines.get(pipeline_id)
jobs = pipeline.jobs.list()
```

Note: Job methods (play, cancel, and so on) are not available on `ProjectPipelineJob` objects. To use these methods create a `ProjectJob` object:

```
pipeline_job = pipeline.jobs.list()[0]
job = project.jobs.get(pipeline_job.id, lazy=True)
job.retry()
```

Get the artifacts of a job:

```
build_or_job.artifacts()
```

Get the artifacts of a job by its name from the latest successful pipeline of a branch or tag:

```
project.artifacts.download(ref_name='main', job='build')
```

Warning: Artifacts are entirely stored in memory in this example.

You can download artifacts as a stream. Provide a callable to handle the stream:

```
with open("archive.zip", "wb") as f:
    build_or_job.artifacts(streamed=True, action=f.write)
```

You can also directly stream the output into a file, and unzip it afterwards:

```
zipfn = "__artifacts.zip"
with open(zipfn, "wb") as f:
    build_or_job.artifacts(streamed=True, action=f.write)
subprocess.run(["unzip", "-bo", zipfn])
os.unlink(zipfn)
```

Or, you can also use the underlying response iterator directly:

```
artifact_bytes_iterator = build_or_job.artifacts(iterator=True)
```

This can be used with frameworks that expect an iterator (such as FastAPI/Starlette's `StreamingResponse`) to forward a download from GitLab without having to download the entire content server-side first:

```
@app.get("/download_artifact")
def download_artifact():
    artifact_bytes_iterator = build_or_job.artifacts(iterator=True)
    return StreamingResponse(artifact_bytes_iterator, media_type="application/zip")
```

Delete all artifacts of a project that can be deleted:

```
project.artifacts.delete()
```

Get a single artifact file:

```
build_or_job.artifact('path/to/file')
```

Get a single artifact file by branch and job:

```
project.artifacts.raw('branch', 'path/to/file', 'job')
```

Mark a job artifact as kept when expiration is set:

```
build_or_job.keep_artifacts()
```

Delete the artifacts of a job:

```
build_or_job.delete_artifacts()
```

Get a job log file / trace:

```
build_or_job.trace()
```

Warning: Traces are entirely stored in memory unless you use the streaming feature. See [the artifacts example](#).

Cancel/retry a job:

```
build_or_job.cancel()
build_or_job.retry()
```

Play (trigger) a job:

```
build_or_job.play()
```

Erase a job (artifacts and trace):

```
build_or_job.erase()
```

Pipeline bridges

Get a list of bridge jobs (including child pipelines) for a pipeline.

Reference

- v4 API
 - *gitlab.v4.objects.ProjectPipelineBridge*
 - *gitlab.v4.objects.ProjectPipelineBridgeManager*
 - *gitlab.v4.objects.ProjectPipeline.bridges*
- GitLab API: <https://docs.gitlab.com/ee/api/jobs.html#list-pipeline-bridges>

Examples

List bridges for the pipeline:

```
bridges = pipeline.bridges.list()
```

Pipeline test report

Get a pipeline's complete test report.

Reference

- v4 API
 - *gitlab.v4.objects.ProjectPipelineTestReport*
 - *gitlab.v4.objects.ProjectPipelineTestReportManager*
 - *gitlab.v4.objects.ProjectPipeline.test_report*
- GitLab API: <https://docs.gitlab.com/ee/api/pipelines.html#get-a-pipelines-test-report>

Examples

Get the test report for a pipeline:

```
test_report = pipeline.test_report.get()
```

Pipeline test report summary

Get a pipeline's test report summary.

Reference

- v4 API
 - `gitlab.v4.objects.ProjectPipelineTestReportSummary`
 - `gitlab.v4.objects.ProjectPipelineTestReportSummaryManager`
 - `gitlab.v4.objects.ProjectPipeline.test_report_summary`
- GitLab API: <https://docs.gitlab.com/ee/api/pipelines.html#get-a-pipelines-test-report-summary>

Examples

Get the test report summary for a pipeline:

```
test_report_summary = pipeline.test_report_summary.get()
```

7.5.41 Projects

Projects

Reference

- v4 API:
 - `gitlab.v4.objects.Project`
 - `gitlab.v4.objects.ProjectManager`
 - `gitlab.Gitlab.projects`
- GitLab API: <https://docs.gitlab.com/ce/api/projects.html>

Examples

List projects:

```
projects = gl.projects.list()
```

The API provides several filtering parameters for the listing methods:

- `archived`: if True only archived projects will be returned
- `visibility`: returns only projects with the specified visibility (can be `public`, `internal` or `private`)
- `search`: returns project matching the given pattern

Results can also be sorted using the following parameters:

- `order_by`: sort using the given argument. Valid values are `id`, `name`, `path`, `created_at`, `updated_at` and `last_activity_at`. The default is to sort by `created_at`

- sort: sort order (asc or desc)

```
# List all projects (default 20)
projects = gl.projects.list(get_all=True)

# Archived projects
projects = gl.projects.list(archived=1)

# Limit to projects with a defined visibility
projects = gl.projects.list.visibility='public')

# List owned projects
projects = gl.projects.list(owned=True)

# List starred projects
projects = gl.projects.list(starred=True)

# Search projects
projects = gl.projects.list(search='keyword')
```

Note: To list the starred projects of another user, see the [Users API docs](#).

Note: Fetching a list of projects, doesn't include all attributes of all projects. To retrieve all attributes, you'll need to fetch a single project

Get a single project:

```
# Get a project by ID
project_id = 851
project = gl.projects.get(project_id)

# Get a project by name with namespace
project_name_with_namespace = "namespace/project_name"
project = gl.projects.get(project_name_with_namespace)
```

Create a project:

```
project = gl.projects.create({'name': 'project1'})
```

Create a project for a user (admin only):

```
alice = gl.users.list(username='alice')[0]
user_project = alice.projects.create({'name': 'project'})
user_projects = alice.projects.list()
```

Create a project in a group:

```
# You need to get the id of the group, then use the namespace_id attribute
# to create the group
group_id = gl.groups.list(search='my-group')[0].id
project = gl.projects.create({'name': 'myrepo', 'namespace_id': group_id})
```

List a project's groups:

```
# Get a list of ancestor/parent groups for a project.
groups = project.groups.list()
```

Update a project:

```
project.snippets_enabled = 1
project.save()
```

Set the avatar image for a project:

```
# the avatar image can be passed as data (content of the file) or as a file
# object opened in binary mode
project.avatar = open('path/to/file.png', 'rb')
project.save()
```

Delete a project:

```
gl.projects.delete(project_id)
# or
project.delete()
```

Restore a project marked for deletion (Premium only):

```
project.restore()
```

Fork a project:

```
fork = project.forks.create({})
# fork to a specific namespace
fork = project.forks.create({'namespace': 'myteam'})
```

Get a list of forks for the project:

```
forks = project.forks.list()
```

Create/delete a fork relation between projects (requires admin permissions):

```
project.create_fork_relation(source_project.id)
project.delete_fork_relation()
```

Get languages used in the project with percentage value:

```
languages = project.languages()
```

Star/unstar a project:

```
project.star()
project.unstar()
```

Archive/unarchive a project:

```
project.archive()
project.unarchive()
```

Start the housekeeping job:

```
project.housekeeping()
```

List the repository tree:

```
# list the content of the root directory for the default branch
items = project.repository_tree()

# list the content of a subdirectory on a specific branch
items = project.repository_tree(path='docs', ref='branch1')
```

Get the content and metadata of a file for a commit, using a blob sha:

```
items = project.repository_tree(path='docs', ref='branch1')
file_info = p.repository_blob(items[0]['id'])
content = base64.b64decode(file_info['content'])
size = file_info['size']
```

Update a project submodule:

```
items = project.update_submodule(
    submodule="foo/bar",
    branch="main",
    commit_sha="4c3674f66071e30b3311dac9b9ccc90502a72664",
    commit_message="Message", # optional
)
```

Get the repository archive:

```
tgz = project.repository_archive()

# get the archive for a branch/tag/commit
tzg = project.repository_archive(sha='4567abc')

# get the archive in a different format
zip = project.repository_archive(format='zip')
```

Note: For the formats available, refer to <https://docs.gitlab.com/ce/api/repositories.html#get-file-archive>

Warning: Archives are entirely stored in memory unless you use the streaming feature. See [the artifacts example](#).

Get the content of a file using the blob id:

```
# find the id for the blob (simple search)
id = [d['id'] for d in p.repository_tree() if d['name'] == 'README.rst'][0]

# get the content
file_content = p.repository_raw_blob(id)
```

Warning: Blobs are entirely stored in memory unless you use the streaming feature. See [the artifacts example](#).

Get a snapshot of the repository:

```
tar_file = project.snapshot()
```

Warning: Snapshots are entirely stored in memory unless you use the streaming feature. See [the artifacts example](#).

Compare two branches, tags or commits:

```
result = project.repository_compare('main', 'branch1')

# get the commits
for commit in result['commits']:
    print(commit)

# get the diffs
for file_diff in result['diffs']:
    print(file_diff)
```

Get the merge base for two or more branches, tags or commits:

```
commit = project.repository_merge_base(['main', 'v1.2.3', 'bd1324e2f'])
```

Get a list of contributors for the repository:

```
contributors = project.repository_contributors()
```

Get a list of users for the repository:

```
users = p.users.list()

# search for users
users = p.users.list(search='pattern')
```

Start the pull mirroring process (EE edition):

```
project.mirror_pull()
```

Get a project's pull mirror details (EE edition):

```
mirror_pull_details = project.mirror_pull_details()
```

Import / Export

You can export projects from gitlab, and re-import them to create new projects or overwrite existing ones.

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectExport`
 - `gitlab.v4.objects.ProjectExportManager`
 - `gitlab.v4.objects.Project.exports`
 - `gitlab.v4.objects.ProjectImport`
 - `gitlab.v4.objects.ProjectImportManager`
 - `gitlab.v4.objects.Project.imports`
 - `gitlab.v4.objects.ProjectManager.import_project`
- GitLab API: https://docs.gitlab.com/ce/api/project_import_export.html

Examples

A project export is an asynchronous operation. To retrieve the archive generated by GitLab you need to:

1. Create an export using the API
2. Wait for the export to be done
3. Download the result

```
# Create the export
p = gl.projects.get(my_project)
export = p.exports.create()

# Wait for the 'finished' status
export.refresh()
while export.export_status != 'finished':
    time.sleep(1)
    export.refresh()

# Download the result
with open('/tmp/export.tgz', 'wb') as f:
    export.download(streamed=True, action=f.write)
```

You can export and upload a project to an external URL (see upstream documentation for more details):

```
project.exports.create(
{
    "upload": {
        {
            "url": "http://localhost:8080",
            "method": "POST"
        }
    }
})
```

You can also get the status of an existing export, regardless of whether it was created via the API or the Web UI:

```
project = gl.projects.get(my_project)

# Gets the current export status
export = project.exports.get()
```

Import the project into the current user's namespace:

```
with open('/tmp/export.tgz', 'rb') as f:
    output = gl.projects.import_project(
        f, path='my_new_project', name='My New Project'
    )

# Get a ProjectImport object to track the import status
project_import = gl.projects.get(output['id'], lazy=True).imports.get()
while project_import.import_status != 'finished':
    time.sleep(1)
    project_import.refresh()
```

Import the project into a namespace and override parameters:

```
with open('/tmp/export.tgz', 'rb') as f:
    output = gl.projects.import_project(
        f,
        path='my_new_project',
        name='My New Project',
        namespace='my-group',
        override_params={'visibility': 'private'},
    )
```

Import the project using file stored on a remote URL:

```
output = gl.projects.remote_import(
    url="https://whatever.com/url/file.tar.gz",
    path="my_new_remote_project",
    name="My New Remote Project",
    namespace="my-group",
    override_params={'visibility': 'private'},
)
```

Import the project using file stored on AWS S3:

```
output = gl.projects.remote_import_s3(
    path="my_new_remote_project",
    region="aws-region",
    bucket_name="aws-bucket-name",
    file_key="aws-file-key",
    access_key_id="aws-access-key-id",
    secret_access_key="secret-access-key",
    name="My New Remote Project",
    namespace="my-group",
    override_params={'visibility': 'private'},
)
```

Project custom attributes

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectCustomAttribute`
 - `gitlab.v4.objects.ProjectCustomAttributeManager`
 - `gitlab.v4.objects.Project.customattributes`
- GitLab API: https://docs.gitlab.com/ce/api/custom_attributes.html

Examples

List custom attributes for a project:

```
attrs = project.customattributes.list()
```

Get a custom attribute for a project:

```
attr = project.customattributes.get(attr_key)
```

Set (create or update) a custom attribute for a project:

```
attr = project.customattributes.set(attr_key, attr_value)
```

Delete a custom attribute for a project:

```
attr.delete()  
# or  
project.customattributes.delete(attr_key)
```

Search projects by custom attribute:

```
project.customattributes.set('type', 'internal')  
gl.projects.list(custom_attributes={'type': 'internal'})
```

Project files

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectFile`
 - `gitlab.v4.objects.ProjectFileManager`
 - `gitlab.v4.objects.Project.files`
- GitLab API: https://docs.gitlab.com/ce/api/repository_files.html

Examples

Get a file:

```
f = project.files.get(file_path='README.rst', ref='main')

# get the base64 encoded content
print(f.content)

# get the decoded content
print(f.decode())
```

Get file details from headers, without fetching its entire content:

```
headers = project.files.head('README.rst', ref='main')

# Get the file size:
# For a full list of headers returned, see upstream documentation.
# https://docs.gitlab.com/ee/api/repository_files.html#get-file-from-repository
print(headers["X-Gitlab-Size"])
```

Get a raw file:

```
raw_content = project.files.raw(file_path='README.rst', ref='main')
print(raw_content)
with open('/tmp/raw-download.txt', 'wb') as f:
    project.files.raw(file_path='README.rst', ref='main', streamed=True, action=f.write)
```

Create a new file:

```
f = project.files.create({'file_path': 'testfile.txt',
                           'branch': 'main',
                           'content': file_content,
                           'author_email': 'test@example.com',
                           'author_name': 'yourname',
                           'commit_message': 'Create testfile'})
```

Update a file. The entire content must be uploaded, as plain text or as base64 encoded text:

```
f.content = 'new content'
f.save(branch='main', commit_message='Update testfile')

# or for binary data
# Note: decode() is required with python 3 for data serialization. You can omit
# it with python 2
f.content = base64.b64encode(open('image.png').read()).decode()
f.save(branch='main', commit_message='Update testfile', encoding='base64')
```

Delete a file:

```
f.delete(commit_message='Delete testfile', branch='main')
# or
project.files.delete(file_path='testfile.txt', commit_message='Delete testfile', branch=
    'main')
```

Get file blame:

```
b = project.files.blame(file_path='README.rst', ref='main')
```

Project tags

Reference

- v4 API:
 - *gitlab.v4.objects.ProjectTag*
 - *gitlab.v4.objects.ProjectTagManager*
 - *gitlab.v4.objects.Project.tags*
- GitLab API: <https://docs.gitlab.com/ce/api/tags.html>

Examples

List the project tags:

```
tags = project.tags.list()
```

Get a tag:

```
tag = project.tags.get('1.0')
```

Create a tag:

```
tag = project.tags.create({'tag_name': '1.0', 'ref': 'main'})
```

Delete a tag:

```
project.tags.delete('1.0')
# or
tag.delete()
```

Project snippets

The snippet visibility can be defined using the following constants:

- *gitlab.const.Visibility.PRIVATE*
- *gitlab.const.Visibility.INTERNAL*
- *gitlab.const.Visibility.PUBLIC*

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectSnippet`
 - `gitlab.v4.objects.ProjectSnippetManager`
 - `gitlab.v4.objects.Project.files`
- GitLab API: https://docs.gitlab.com/ce/api/project_snippets.html

Examples

List the project snippets:

```
snippets = project.snippets.list()
```

Get a snippet:

```
snippet = project.snippets.get(snippet_id)
```

Get the content of a snippet:

```
print(snippet.content())
```

Warning: The snippet content is entirely stored in memory unless you use the streaming feature. See [the artifacts example](#).

Create a snippet:

```
snippet = project.snippets.create({'title': 'sample 1',
                                    'files': [{"file_path": 'foo.py',
                                               'content': 'import gitlab'},
                                              ],
                                    'visibility_level':
                                    gitlab.const.Visibility.PRIVATE})
```

Update a snippet:

```
snippet.code = 'import gitlab\nimport whatever'
snippet.save
```

Delete a snippet:

```
project.snippets.delete(snippet_id)
# or
snippet.delete()
```

Get user agent detail (admin only):

```
detail = snippet.user_agent_detail()
```

Notes

See [Notes](#).

Project members

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectMember`
 - `gitlab.v4.objects.ProjectMemberManager`
 - `gitlab.v4.objects.ProjectMemberAllManager`
 - `gitlab.v4.objects.Project.members`
 - `gitlab.v4.objects.Project.members_all`
- GitLab API: <https://docs.gitlab.com/ce/api/members.html>

Examples

List only direct project members:

```
members = project.members.list()
```

List the project members recursively (including inherited members through ancestor groups):

```
members = project.members_all.list(get_all=True)
```

Search project members matching a query string:

```
members = project.members.list(query='bar')
```

Get only direct project member:

```
member = project.members.get(user_id)
```

Get a member of a project, including members inherited through ancestor groups:

```
members = project.members_all.get(member_id)
```

Add a project member:

```
member = project.members.create({'user_id': user.id, 'access_level': gitlab.const.AccessLevel.DEVELOPER})
```

Modify a project member (change the access level):

```
member.access_level = gitlab.const.AccessLevel.MAINTAINER  
member.save()
```

Remove a member from the project team:

```
project.members.delete(user.id)
# or
member.delete()
```

Share/unshare the project with a group:

```
project.share(group.id, gitlab.const.AccessLevel.DEVELOPER)
project.unshare(group.id)
```

Project hooks

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectHook`
 - `gitlab.v4.objects.ProjectHookManager`
 - `gitlab.v4.objects.Project.hooks`
- GitLab API: <https://docs.gitlab.com/ce/api/projects.html#hooks>

Examples

List the project hooks:

```
hooks = project.hooks.list()
```

Get a project hook:

```
hook = project.hooks.get(hook_id)
```

Create a project hook:

```
hook = project.hooks.create({'url': 'http://my/action/url', 'push_events': 1})
```

Update a project hook:

```
hook.push_events = 0
hook.save()
```

Delete a project hook:

```
project.hooks.delete(hook_id)
# or
hook.delete()
```

Project Integrations

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectIntegration`
 - `gitlab.v4.objects.ProjectIntegrationManager`
 - `gitlab.v4.objects.Project.integrations`
- GitLab API: <https://docs.gitlab.com/ce/api/integrations.html>

Examples

Danger: Since GitLab 13.12, `get()` calls to project integrations return a `404 Not Found` response until they have been activated the first time.

To avoid this, we recommend using `lazy=True` to prevent making the initial call when activating new integrations unless they have previously already been activated.

Configure and enable an integration for the first time:

```
integration = project.integrations.get('asana', lazy=True)

integration.api_key = 'randomkey'
integration.save()
```

Get an existing integration:

```
integration = project.integrations.get('asana')
# display its status (enabled/disabled)
print(integration.active)
```

List active project integrations:

```
integration = project.integrations.list()
```

List the code names of available integrations (doesn't return objects):

```
integrations = project.integrations.available()
```

Disable an integration:

```
integration.delete()
```

File uploads

Reference

- v4 API:
 - `gitlab.v4.objects.Project.upload`
- Gitlab API: <https://docs.gitlab.com/ce/api/projects.html#upload-a-file>

Examples

Upload a file into a project using a filesystem path:

```
project.upload("filename.txt", filepath="/some/path/filename.txt")
```

Upload a file into a project without a filesystem path:

```
project.upload("filename.txt", filedatal="Raw data")
```

Upload a file and comment on an issue using the uploaded file's markdown:

```
uploaded_file = project.upload("filename.txt", filedatal="data")
issue = project.issues.get(issue_id)
issue.notes.create({
    "body": "See the attached file: {}".format(uploaded_file["markdown"])
})
```

Upload a file and comment on an issue while using custom markdown to reference the uploaded file:

```
uploaded_file = project.upload("filename.txt", filedatal="data")
issue = project.issues.get(issue_id)
issue.notes.create({
    "body": "See the [attached file]({})".format(uploaded_file["url"])
})
```

Project push rules

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectPushRules`
 - `gitlab.v4.objects.ProjectPushRulesManager`
 - `gitlab.v4.objects.Project.pushrules`
- GitLab API: <https://docs.gitlab.com/ee/api/projects.html#push-rules>

Examples

Create project push rules (at least one rule is necessary):

```
project.pushrules.create({'deny_delete_tag': True})
```

Get project push rules:

```
pr = project.pushrules.get()
```

Edit project push rules:

```
pr.branch_name_regex = '^(\main|develop|support-\d+|release-\d+\.\.+|hotfix-\.\.+|feature-\.\.+)$'  
pr.save()
```

Delete project push rules:

```
pr.delete()
```

Project protected tags

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectProtectedTag`
 - `gitlab.v4.objects.ProjectProtectedTagManager`
 - `gitlab.v4.objects.Project.protectedtags`
- GitLab API: https://docs.gitlab.com/ce/api/protected_tags.html

Examples

Get a list of protected tags from a project:

```
protected_tags = project.protectedtags.list()
```

Get a single protected tag or wildcard protected tag:

```
protected_tag = project.protectedtags.get('v*')
```

Protect a single repository tag or several project repository tags using a wildcard protected tag:

```
project.protectedtags.create({'name': 'v*', 'create_access_level': '40'})
```

Unprotect the given protected tag or wildcard protected tag.:

```
protected_tag.delete()
```

Additional project statistics

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectAdditionalStatistics`
 - `gitlab.v4.objects.ProjectAdditionalStatisticsManager`
 - `gitlab.v4.objects.Project.additionalstatistics`
- GitLab API: https://docs.gitlab.com/ce/api/project_statistics.html

Examples

Get all additional statistics of a project:

```
statistics = project.additionalstatistics.get()
```

Get total fetches in last 30 days of a project:

```
total_fetches = project.additionalstatistics.get().fetches['total']
```

Project storage

This endpoint requires admin access.

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectStorage`
 - `gitlab.v4.objects.ProjectStorageManager`
 - `gitlab.v4.objects.Project.storage`
- GitLab API: <https://docs.gitlab.com/ee/api/projects.html#get-the-path-to-repository-storage>

Examples

Get the repository storage details for a project:

```
storage = project.storage.get()
```

Get the repository storage disk path:

```
disk_path = project.storage.get().disk_path
```

7.5.42 Project Access Tokens

Get a list of project access tokens

References

- v4 API:
 - `gitlab.v4.objects.ProjectAccessToken`
 - `gitlab.v4.objects.ProjectAccessTokenManager`
 - `gitlab.Gitlab.project_access_tokens`
- GitLab API: https://docs.gitlab.com/ee/api/project_access_tokens.html

Examples

List project access tokens:

```
access_tokens = gl.projects.get(1, lazy=True).access_tokens.list()
print(access_tokens[0].name)
```

Get a project access token by id:

```
token = project.access_tokens.get(123)
print(token.name)
```

Create project access token:

```
access_token = gl.projects.get(1).access_tokens.create({"name": "test", "scopes": ["api"], "expires_at": "2023-06-06"})
```

Revoke a project access token:

```
gl.projects.get(1).access_tokens.delete(42)
# or
access_token.delete()
```

Rotate a project access token and retrieve its new value:

```
token = project.access_tokens.get(42, lazy=True)
token.rotate()
print(token.token)
# or directly using a token ID
new_token = project.access_tokens.rotate(42)
print(new_token.token)
```

7.5.43 Protected branches

You can define a list of protected branch names on a repository. Names can use wildcards (*).

References

- v4 API:
 - `gitlab.v4.objects.ProjectProtectedBranch`
 - `gitlab.v4.objects.ProjectProtectedBranchManager`
 - `gitlab.v4.objects.Project.protectedbranches`
- GitLab API: https://docs.gitlab.com/ce/api/protected_branches.html#protected-branches-api

Examples

Get the list of protected branches for a project:

```
p_branches = project.protectedbranches.list()
```

Get a single protected branch:

```
p_branch = project.protectedbranches.get('main')
```

Update a protected branch:

```
p_branch.allow_force_push = True
p_branch.save()
```

Create a protected branch:

```
p_branch = project.protectedbranches.create({
    'name': '*-stable',
    'merge_access_level': gitlab.const.AccessLevel.DEVELOPER,
    'push_access_level': gitlab.const.AccessLevel.MAINTAINER
})
```

Create a protected branch with more granular access control:

```
p_branch = project.protectedbranches.create({
    'name': '*-stable',
    'allowed_to_push': [{"user_id": 99}, {"user_id": 98}],
    'allowed_to_merge': [{"group_id": 653}],
    'allowed_to_unprotect': [{"access_level": gitlab.const.AccessLevel.MAINTAINER}]
})
```

Delete a protected branch:

```
project.protectedbranches.delete('*-stable')
# or
p_branch.delete()
```

7.5.44 Protected environments

You can list and manage protected environments in a project.

References

- v4 API:
 - `gitlab.v4.objects.ProjectProtectedEnvironment`
 - `gitlab.v4.objects.ProjectProtectedEnvironmentManager`
 - `gitlab.v4.objects.Project.protected_environment`
- GitLab API: https://docs.gitlab.com/ee/api/protected_environments.html

Examples

Get the list of protected environments for a project:

```
p_environments = project.protected_environments.list()
```

Get a single protected environment:

```
p_environments = project.protected_environments.get('production')
```

Protect an existing environment:

```
p_environment = project.protected_environments.create(  
    {  
        'name': 'production',  
        'deploy_access_levels': [  
            {'access_level': 40}  
        ],  
    }  
)
```

Unprotect a protected environment:

```
p_environment = project.protected_environments.delete('production')  
# or  
p_environment.delete()
```

7.5.45 Releases

Project releases

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectRelease`
 - `gitlab.v4.objects.ProjectReleaseManager`

- `gitlab.v4.objects.Project.releases`
- Gitlab API: <https://docs.gitlab.com/ee/api/releases/index.html>

Examples

Get a list of releases from a project:

```
project = gl.projects.get(project_id, lazy=True)
release = project.releases.list()
```

Get a single release:

```
release = project.releases.get('v1.2.3')
```

Edit a release:

```
release.name = "Demo Release"
release.description = "release notes go here"
release.save()
```

Create a release for a project tag:

```
release = project.releases.create({'name': 'Demo Release', 'tag_name': 'v1.2.3',
                                   'description': 'release notes go here'})
```

Delete a release:

```
# via its tag name from project attributes
release = project.releases.delete('v1.2.3')

# delete object directly
release.delete()
```

Note: The Releases API is one of the few working with CI_JOB_TOKEN, but the project can't be fetched with the token. Thus use `lazy` for the project as in the above example.

Also be aware that most of the capabilities of the endpoint were not accessible with CI_JOB_TOKEN until Gitlab version 14.5.

Project release links

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectReleaseLink`
 - `gitlab.v4.objects.ProjectReleaseLinkManager`
 - `gitlab.v4.objects.ProjectRelease.links`
- Gitlab API: <https://docs.gitlab.com/ee/api/releases/links.html>

Examples

Get a list of releases from a project:

```
links = release.links.list()
```

Get a single release link:

```
link = release.links.get(1)
```

Create a release link for a release:

```
link = release.links.create({"url": "https://example.com/asset", "name": "asset"})
```

Delete a release link:

```
# via its ID from release attributes
release.links.delete(1)

# delete object directly
link.delete()
```

7.5.46 Runners

Runners are external processes used to run CI jobs. They are deployed by the administrator and registered to the GitLab instance.

Shared runners are available for all projects. Specific runners are enabled for a list of projects.

Global runners (admin)

Reference

- v4 API:
 - `gitlab.v4.objects.Runner`
 - `gitlab.v4.objects.RunnerManager`
 - `gitlab.Gitlab.runners`
 - `gitlab.v4.objects.RunnerAll`
 - `gitlab.v4.objects.RunnerAllManager`
 - `gitlab.Gitlab.runners_all`
- GitLab API: <https://docs.gitlab.com/ce/api/runners.html>

Examples

Use the `runners.list()` and `runners_all.list()` methods to list runners. `runners.list()` - Get a list of specific runners available to the user `runners_all.list()` - Get a list of all runners in the GitLab instance (specific and shared). Access is restricted to users with administrator access.

Both methods accept a `scope` parameter to filter the list. Allowed values for this parameter are:

- `active`
- `paused`
- `online`
- `specific` (`runners_all.list()` only)
- `shared` (`runners_all.list()` only)

Note: The returned objects hold minimal information about the runners. Use the `get()` method to retrieve detail about a runner.

Runners returned via `runners_all.list()` also cannot be manipulated directly. You will need to use the `get()` method to create an editable object.

```
# List owned runners
runners = gl.runners.list()

# List owned runners with a filter
runners = gl.runners.list(scope='active')

# List all runners in the GitLab instance (specific and shared), using a filter
runners = gl.runners_all.list(scope='paused')
```

Get a runner's detail:

```
runner = gl.runners.get(runner_id)
```

Register a new runner:

```
runner = gl.runners.create({'token': secret_token})
```

Note: A new runner registration workflow has been introduced since GitLab 16.0. This new workflow comes with a new API endpoint to create runners, which does not use registration tokens.

The new endpoint can be called using `gl.user.runners.create()` after authenticating with `gl.auth()`.

Update a runner:

```
runner = gl.runners.get(runner_id)
runner.tag_list.append('new_tag')
runner.save()
```

Remove a runner:

```
gl.runners.delete(runner_id)
# or
runner.delete()
```

Remove a runner by its authentication token:

```
gl.runners.delete(token="runner-auth-token")
```

Verify a registered runner token:

```
try:
    gl.runners.verify(runner_token)
    print("Valid token")
except GitlabVerifyError:
    print("Invalid token")
```

Project/Group runners

Reference

- v4 API:
 - *gitlab.v4.objects.ProjectRunner*
 - *gitlab.v4.objects.ProjectRunnerManager*
 - *gitlab.v4.objects.Project.runners*
 - *gitlab.v4.objects.GroupRunner*
 - *gitlab.v4.objects.GroupRunnerManager*
 - *gitlab.v4.objects.Group.runners*
- GitLab API: <https://docs.gitlab.com/ce/api/runners.html>

Examples

List the runners for a project:

```
runners = project.runners.list()
```

Enable a specific runner for a project:

```
p_runner = project.runners.create({'runner_id': runner.id})
```

Disable a specific runner for a project:

```
project.runners.delete(runner.id)
```

Runner jobs

Reference

- v4 API:
 - `gitlab.v4.objects.RunnerJob`
 - `gitlab.v4.objects.RunnerJobManager`
 - `gitlab.v4.objects.Runner.jobs`
- GitLab API: <https://docs.gitlab.com/ce/api/runners.html>

Examples

List for jobs for a runner:

```
jobs = runner.jobs.list()
```

Filter the list using the jobs status:

```
# status can be 'running', 'success', 'failed' or 'canceled'  
active_jobs = runner.jobs.list(status='running')
```

7.5.47 Project Remote Mirrors

Remote Mirrors allow you to set up push mirroring for a project.

References

- v4 API:
 - `gitlab.v4.objects.ProjectRemoteMirror`
 - `gitlab.v4.objects.ProjectRemoteMirrorManager`
 - `gitlab.v4.objects.Project.remote_mirrors`
- GitLab API: https://docs.gitlab.com/ce/api/remote_mirrors.html

Examples

Get the list of a project's remote mirrors:

```
mirrors = project.remote_mirrors.list()
```

Create (and enable) a remote mirror for a project:

```
mirror = project.remote_mirrors.create({'url': 'https://gitlab.com/example.git',  
                                         'enabled': True})
```

Update an existing remote mirror's attributes:

```
mirror.enabled = False
mirror.only_protected_branches = True
mirror.save()
```

Delete an existing remote mirror:

```
mirror.delete()
```

7.5.48 Registry Repositories

References

- v4 API:
 - *gitlab.v4.objects.ProjectRegistryRepository*
 - *gitlab.v4.objects.ProjectRegistryRepositoryManager*
 - *gitlab.v4.objects.Project.repositories*
- Gitlab API: https://docs.gitlab.com/ce/api/container_registry.html

Examples

Get the list of container registry repositories associated with the project:

```
repositories = project.repositories.list()
```

Get the list of all project container registry repositories in a group:

```
repositories = group.registry_repositories.list()
```

Delete repository:

```
project.repositories.delete(id=x)
# or
repository = repositories.pop()
repository.delete()
```

7.5.49 Registry Repository Tags

References

- v4 API:
 - *gitlab.v4.objects.ProjectRegistryTag*
 - *gitlab.v4.objects.ProjectRegistryTagManager*
 - *gitlab.v4.objects.Repository.tags*
- Gitlab API: https://docs.gitlab.com/ce/api/container_registry.html

Examples

Get the list of repository tags in given registry:

```
repositories = project.repositories.list()
repository = repositories.pop()
tags = repository.tags.list()
```

Get specific tag:

```
repository.tags.get(id=tag_name)
```

Delete tag:

```
repository.tags.delete(id=tag_name)
# or
tag = repository.tags.get(id=tag_name)
tag.delete()
```

Delete tag in bulk:

```
repository.tags.delete_in_bulk(keep_n=1)
# or
repository.tags.delete_in_bulk(older_than="1m")
# or
repository.tags.delete_in_bulk(name_regex="v.+", keep_n=2)
```

Note: Delete in bulk is asynchronous operation and may take a while. Refer to: https://docs.gitlab.com/ce/api/container_registry.html#delete-repository-tags-in-bulk

7.5.50 Resource Groups

Reference

- v4 API:
 - *gitlab.v4.objects.ProjectResourceGroup*
 - *gitlab.v4.objects.ProjectResourceGroupManager*
 - *gitlab.v4.objects.Project.resource_groups*
 - *gitlab.v4.objects.ProjectResourceGroupUpcomingJob*
 - *gitlab.v4.objects.ProjectResourceGroupUpcomingJobManager*
 - *gitlab.v4.objects.ProjectResourceGroup.upcoming_jobs*
- Gitlab API: https://docs.gitlab.com/ee/api/resource_groups.html

Examples

List resource groups for a project:

```
project = gl.projects.get(project_id, lazy=True)
resource_group = project.resource_groups.list()
```

Get a single resource group:

```
resource_group = project.resource_groups.get("production")
```

Edit a resource group:

```
resource_group.process_mode = "oldest_first"
resource_group.save()
```

List upcoming jobs for a resource group:

```
upcoming_jobs = resource_group.upcoming_jobs.list()
```

7.5.51 Search API

You can search for resources at the top level, in a project or in a group. Searches are based on a scope (issues, merge requests, and so on) and a search string. The following constants are provided to represent the possible scopes:

- Shared scopes (global, group and project):
 - `gitlab.const.SearchScope.PROJECTS`: projects
 - `gitlab.const.SearchScope.ISSUES`: issues
 - `gitlab.const.SearchScope.MERGE_REQUESTS`: merge_requests
 - `gitlab.const.SearchScope.MILESTONES`: milestones
 - `gitlab.const.SearchScope.WIKI_BLOBS`: wiki_blobs
 - `gitlab.const.SearchScope.COMMITS`: commits
 - `gitlab.const.SearchScope.BLOBS`: blobs
 - `gitlab.const.SearchScope.USERS`: users
- specific global scope:
 - `gitlab.const.SearchScope.GLOBAL_SNIPPET_TITLES`: snippet_titles
- specific project scope:
 - `gitlab.const.SearchScope.PROJECT_NOTES`: notes

Reference

- v4 API:
 - `gitlab.Gitlab.search`
 - `gitlab.v4.objects.Group.search`
 - `gitlab.v4.objects.Project.search`
- GitLab API: <https://docs.gitlab.com/ce/api/search.html>

Examples

Search for issues matching a specific string:

```
# global search
gl.search(gitlab.const.SearchScope.ISSUES, 'regression')

# group search
group = gl.groups.get('mygroup')
group.search(gitlab.const.SearchScope.ISSUES, 'regression')

# project search
project = gl.projects.get('myproject')
project.search(gitlab.const.SearchScope.ISSUES, 'regression')
```

The `search()` methods implement the pagination support:

```
# get lists of 10 items, and start at page 2
gl.search(gitlab.const.SearchScope.ISSUES, search_str, page=2, per_page=10)

# get a generator that will automatically make required API calls for
# pagination
for item in gl.search(gitlab.const.SearchScope.ISSUES, search_str, iterator=True):
    do_something(item)
```

The search API doesn't return objects, but dicts. If you need to act on objects, you need to create them explicitly:

```
for item in gl.search(gitlab.const.SearchScope.ISSUES, search_str, iterator=True):
    issue_project = gl.projects.get(item['project_id'], lazy=True)
    issue = issue_project.issues.get(item['iid'])
    issue.state = 'closed'
    issue.save()
```

7.5.52 Secure Files

secure files

References

- v4 API:
 - `gitlab.v4.objects.ProjectSecureFile`

- *gitlab.v4.objects.ProjectSecureFileManager*
- *gitlab.v4.objects.Project.secure_files*
- GitLab API: https://docs.gitlab.com/ee/api/secure_files.html

Examples

Get a project secure file:

```
secure_files = gl.projects.get(1, lazy=True).secure_files.get(1)
print(secure_files.name)
```

List project secure files:

```
secure_files = gl.projects.get(1, lazy=True).secure_files.list()
print(secure_files[0].name)
```

Create project secure file:

```
secure_file = gl.projects.get(1).secure_files.create({"name": "test", "file": "secure.txt"
    ↪ })
```

Download a project secure file:

```
content = secure_file.download()
print(content)
with open("/tmp/secure.txt", "wb") as f:
    secure_file.download(streamed=True, action=f.write)
```

Remove a project secure file:

```
gl.projects.get(1).secure_files.delete(1)
# or
secure_file.delete()
```

7.5.53 Settings

Reference

- v4 API:
 - *gitlab.v4.objects.ApplicationSettings*
 - *gitlab.v4.objects.ApplicationSettingsManager*
 - *gitlab.Gitlab.settings*
- GitLab API: <https://docs.gitlab.com/ce/api/settings.html>

Examples

Get the settings:

```
settings = gl.settings.get()
```

Update the settings:

```
settings.signin_enabled = False
settings.save()
```

7.5.54 Snippets

Reference

- v4 API:
 - `gitlab.v4.objects.Snippet`
 - `gitlab.v4.objects.SnipptManager`
 - `gitlab.Gitlab.snippets`
- GitLab API: <https://docs.gitlab.com/ce/api/snippets.html>

Examples

List snippets owned by the current user:

```
snippets = gl.snippets.list()
```

List the public snippets:

```
public_snippets = gl.snippets.public()
```

Get a snippet:

```
snippet = gl.snippets.get(snippet_id)
# get the content
content = snippet.content()
```

Warning: Blobs are entirely stored in memory unless you use the streaming feature. See [the artifacts example](#).

Create a snippet:

```
snippet = gl.snippets.create({'title': 'snippet1',
                             'files': [
                               {'file_path': 'foo.py',
                                'content': 'import gitlab'
                               }
                             ]})
```

Update the snippet attributes:

```
snippet.visibility_level = gitlab.const.Visibility.PUBLIC  
snippet.save()
```

To update a snippet code you need to create a `ProjectSnippet` object:

```
snippet = gl.snippets.get(snippet_id)  
project = gl.projects.get(snippet.project_id, lazy=True)  
editable_snippet = project.snippets.get(snippet.id)  
editable_snippet.code = new_snippet_content  
editable_snippet.save()
```

Delete a snippet:

```
gl.snippets.delete(snippet_id)  
# or  
snippet.delete()
```

Get user agent detail (admin only):

```
detail = snippet.user_agent_detail()
```

7.5.55 Statistics

Reference

- v4 API:
 - `gitlab.v4.objects.ApplicationStatistics`
 - `gitlab.v4.objects.ApplicationStatisticsManager`
 - `gitlab.Gitlab.statistics`
- GitLab API: <https://docs.gitlab.com/ee/api/statistics.html>

Examples

Get the statistics:

```
statistics = gl.statistics.get()
```

7.5.56 System hooks

Reference

- v4 API:
 - `gitlab.v4.objects.Hook`
 - `gitlab.v4.objects.HookManager`
 - `gitlab.Gitlab.hooks`
- GitLab API: https://docs.gitlab.com/ce/api/system_hooks.html

Examples

List the system hooks:

```
hooks = gl.hooks.list()
```

Create a system hook:

```
gl.hooks.get(hook_id)
```

Test a system hook. The returned object is not usable (it misses the hook ID):

```
hook = gl.hooks.create({'url': 'http://your.target.url'})
```

Delete a system hook:

```
gl.hooks.delete(hook_id)  
# or  
hook.delete()
```

7.5.57 Templates

You can request templates for different type of files:

- License files
- .gitignore files
- GitLab CI configuration files
- Dockerfiles

License templates

Reference

- v4 API:
 - `gitlab.v4.objects.License`
 - `gitlab.v4.objects.LicenseManager`
 - `gitlab.Gitlab.licenses`
- GitLab API: <https://docs.gitlab.com/ce/api/templates/licenses.html>

Examples

List known license templates:

```
licenses = gl.licenses.list()
```

Generate a license content for a project:

```
license = gl.licenses.get('apache-2.0', project='foobar', fullname='John Doe')  
print(license.content)
```

.gitignore templates

Reference

- v4 API:
 - `gitlab.v4.objects.Gitignore`
 - `gitlab.v4.objects.GitignoreManager`
 - `gitlab.Gitlab.gitignores`
- GitLab API: <https://docs.gitlab.com/ce/api/templates/gitignores.html>

Examples

List known gitignore templates:

```
gitignores = gl.gitignores.list()
```

Get a gitignore template:

```
gitignore = gl.gitignores.get('Python')
print(gitignore.content)
```

GitLab CI templates

Reference

- v4 API:
 - `gitlab.v4.objects.Gitlabciyml`
 - `gitlab.v4.objects.GitlabciymlManager`
 - `gitlab.Gitlab.gitlabciymls`
- GitLab API: https://docs.gitlab.com/ce/api/templates/gitlab_ci_ymls.html

Examples

List known GitLab CI templates:

```
gitlabciymls = gl.gitlabciymls.list()
```

Get a GitLab CI template:

```
gitlabciyml = gl.gitlabciymls.get('Pelican')
print(gitlabciyml.content)
```

Dockerfile templates

Reference

- v4 API:
 - `gitlab.v4.objects.Dockerfile`
 - `gitlab.v4.objects.DockerfileManager`
 - `gitlab.Gitlab.gitlabciymls`
- GitLab API: Not documented.

Examples

List known Dockerfile templates:

```
dockerfiles = gl.dockerfiles.list()
```

Get a Dockerfile template:

```
dockerfile = gl.dockerfiles.get('Python')
print(dockerfile.content)
```

7.5.58 Todos

Reference

- v4 API:
 - Todo
 - TodoManager
 - `gitlab.Gitlab.todos`
- GitLab API: <https://docs.gitlab.com/ce/api/todos.html>

Examples

List active todos:

```
todos = gl.todos.list()
```

You can filter the list using the following parameters:

- `action`: can be `assigned`, `mentioned`, `build_failed`, `marked`, or `approval_required`
- `author_id`
- `project_id`
- `state`: can be `pending` or `done`
- `type`: can be `Issue` or `MergeRequest`

For example:

```
todos = gl.todos.list(project_id=1)
todos = gl.todos.list(state='done', type='Issue')
```

Mark a todo as done:

```
todos = gl.todos.list(project_id=1)
todos[0].mark_as_done()
```

Mark all the todos as done:

```
gl.todos.mark_all_as_done()
```

7.5.59 Topics

Topics can be used to categorize projects and find similar new projects.

Reference

- v4 API:
 - `gitlab.v4.objects.Topic`
 - `gitlab.v4.objects.TopicManager`
 - `gitlab.Gitlab.topics`
- GitLab API: <https://docs.gitlab.com/ce/api/topics.html>

This endpoint requires admin access for creating, updating and deleting objects.

Examples

List project topics on the GitLab instance:

```
topics = gl.topics.list()
```

Get a specific topic by its ID:

```
topic = gl.topics.get(topic_id)
```

Create a new topic:

```
topic = gl.topics.create({"name": "my-topic", "title": "my title"})
```

Update a topic:

```
topic.description = "My new topic"
topic.save()

# or
gl.topics.update(topic_id, {"description": "My new topic"})
```

Delete a topic:

```
topic.delete()

# or
gl.topics.delete(topic_id)
```

Merge a source topic into a target topic:

```
gl.topics.merge(topic_id, target_topic_id)
```

7.5.60 Users and current user

The Gitlab API exposes user-related method that can be manipulated by admins only.

The currently logged-in user is also exposed.

Users

References

- v4 API:
 - `gitlab.v4.objects.User`
 - `gitlab.v4.objects.UserManager`
 - `gitlab.Gitlab.users`
- GitLab API:
 - <https://docs.gitlab.com/ce/api/users.html>
 - <https://docs.gitlab.com/ee/api/projects.html#list-projects-starred-by-a-user>

Examples

Get the list of users:

```
users = gl.users.list()
```

Search users whose username match a given string:

```
users = gl.users.list(search='foo')
```

Get a single user:

```
# by ID
user = gl.users.get(user_id)
# by username
user = gl.users.list(username='root')[0]
```

Create a user:

```
user = gl.users.create({'email': 'john@doe.com',
                       'password': 's3cur3s3cr3T',
                       'username': 'jdoe',
                       'name': 'John Doe'})
```

Update a user:

```
user.name = 'Real Name'
user.save()
```

Delete a user:

```
gl.users.delete(user_id)
# or
user.delete()
```

Block/Unblock a user:

```
user.block()
user.unblock()
```

Activate/Deactivate a user:

```
user.activate()
user.deactivate()
```

Ban/Unban a user:

```
user.ban()
user.unban()
```

Follow/Unfollow a user:

```
user.follow()
user.unfollow()
```

Set the avatar image for a user:

```
# the avatar image can be passed as data (content of the file) or as a file
# object opened in binary mode
user.avatar = open('path/to/file.png', 'rb')
user.save()
```

Set an external identity for a user:

```
user.provider = 'oauth2_generic'
user.extern_uid = '3'
user.save()
```

Delete an external identity by provider name:

```
user.identityproviders.delete('oauth2_generic')
```

Get the followers of a user

```
user.followers_users.list()
```

Get the followings of a user

```
user.following_users.list()
```

List a user's starred projects

```
user.starred_projects.list()
```

If the GitLab instance has new user account approval enabled some users may have `user.state == 'blocked_pending_approval'`. Administrators can approve and reject such users:

```
user.approve()
user.reject()
```

User custom attributes

References

- v4 API:
 - `gitlab.v4.objects.UserCustomAttribute`
 - `gitlab.v4.objects.UserCustomAttributeManager`
 - `gitlab.v4.objects.User.customattributes`
- GitLab API: https://docs.gitlab.com/ce/api/custom_attributes.html

Examples

List custom attributes for a user:

```
attrs = user.customattributes.list()
```

Get a custom attribute for a user:

```
attr = user.customattributes.get(attr_key)
```

Set (create or update) a custom attribute for a user:

```
attr = user.customattributes.set(attr_key, attr_value)
```

Delete a custom attribute for a user:

```
attr.delete()
# or
user.customattributes.delete(attr_key)
```

Search users by custom attribute:

```
user.customattributes.set('role', 'QA')
gl.users.list(custom_attributes={'role': 'QA'})
```

User impersonation tokens

References

- v4 API:
 - `gitlab.v4.objects.UserImpersonationToken`
 - `gitlab.v4.objects.UserImpersonationTokenManager`
 - `gitlab.v4.objects.User.impersonationtokens`
- GitLab API: <https://docs.gitlab.com/ce/api/users.html#get-all-impersonation-tokens-of-a-user>

List impersonation tokens for a user:

```
i_t = user.impersonationtokens.list(state='active')
i_t = user.impersonationtokens.list(state='inactive')
```

Get an impersonation token for a user:

```
i_t = user.impersonationtokens.get(i_t_id)
```

Create and use an impersonation token for a user:

```
i_t = user.impersonationtokens.create({'name': 'token1', 'scopes': ['api']})
# use the token to create a new gitlab connection
user_gl = gitlab.Gitlab(gitlab_url, private_token=i_t.token)
```

Revoke (delete) an impersonation token for a user:

```
i_t.delete()
```

User projects

References

- v4 API:
 - `gitlab.v4.objects.UserProject`
 - `gitlab.v4.objects.UserProjectManager`
 - `gitlab.v4.objects.User.projects`
- GitLab API: <https://docs.gitlab.com/ee/api/projects.html#list-user-projects>

List visible projects in the user's namespace:

```
projects = user.projects.list()
```

Note: Only the projects in the user's namespace are returned. Projects owned by the user in any group or subgroups are not returned. An empty list is returned if a profile is set to private.

User memberships

References

- v4 API:
 - `gitlab.v4.objects.UserMembership`
 - `gitlab.v4.objects.UserMembershipManager`
 - `gitlab.v4.objects.User.memberships`
- GitLab API: <https://docs.gitlab.com/ee/api/users.html#user-memberships>

List direct memberships for a user:

```
memberships = user.memberships.list()
```

List only direct project memberships:

```
memberships = user.memberships.list(type='Project')
```

List only direct group memberships:

```
memberships = user.memberships.list(type='Namespace')
```

Note: This endpoint requires admin access.

Current User

References

- v4 API:
 - `gitlab.v4.objects.CurrentUser`
 - `gitlab.v4.objects.CurrentUserManager`
 - `gitlab.Gitlab.user`
- GitLab API: <https://docs.gitlab.com/ce/api/users.html>

Examples

Get the current user:

```
gl.auth()
current_user = gl.user
```

GPG keys

References

You can manipulate GPG keys for the current user and for the other users if you are admin.

- v4 API:
 - `gitlab.v4.objects.CurrentUserGPGKey`
 - `gitlab.v4.objects.CurrentUserGPGKeyManager`
 - `gitlab.v4.objects.CurrentUser.gpgkeys`
 - `gitlab.v4.objects.UserGPGKey`
 - `gitlab.v4.objects.UserGPGKeyManager`
 - `gitlab.v4.objects.User.gpgkeys`
- GitLab API: <https://docs.gitlab.com/ce/api/users.html#list-all-gpg-keys>

Examples

List GPG keys for a user:

```
gpgkeys = user.gpgkeys.list()
```

Get a GPG gpgkey for a user:

```
gpgkey = user.gpgkeys.get(key_id)
```

Create a GPG gpgkey for a user:

```
# get the key with `gpg --export -a GPG_KEY_ID`
k = user.gpgkeys.create({'key': public_key_content})
```

Delete a GPG gpgkey for a user:

```
user.gpgkeys.delete(key_id)
# or
gpgkey.delete()
```

SSH keys

References

You can manipulate SSH keys for the current user and for the other users if you are admin.

- v4 API:
 - `gitlab.v4.objects.CurrentUserKey`
 - `gitlab.v4.objects.CurrentUserKeyManager`
 - `gitlab.v4.objects.CurrentUser.keys`
 - `gitlab.v4.objects.UserKey`

- *gitlab.v4.objects.UserKeyManager*
- *gitlab.v4.objects.User.keys*
- GitLab API: <https://docs.gitlab.com/ce/api/users.html#list-ssh-keys>

Examples

List SSH keys for a user:

```
keys = user.keys.list()
```

Create an SSH key for a user:

```
key = user.keys.create({'title': 'my_key',  
                       'key': open('/home/me/.ssh/id_rsa.pub').read()})
```

Get an SSH key for a user by id:

```
key = user.keys.get(key_id)
```

Delete an SSH key for a user:

```
user.keys.delete(key_id)  
# or  
key.delete()
```

Status

References

You can manipulate the status for the current user and you can read the status of other users.

- v4 API:
 - *gitlab.v4.objects.CurrentUserStatus*
 - *gitlab.v4.objects.CurrentUserStatusManager*
 - *gitlab.v4.objects.CurrentUser.status*
 - *gitlab.v4.objects.UserStatus*
 - *gitlab.v4.objects.UserStatusManager*
 - *gitlab.v4.objects.User.status*
- GitLab API: <https://docs.gitlab.com/ce/api/users.html#user-status>

Examples

Get current user status:

```
status = user.status.get()
```

Update the status for the current user:

```
status = user.status.get()
status.message = "message"
status.emoji = "thumbsup"
status.save()
```

Get the status of other users:

```
gl.users.get(1).status.get()
```

Emails

References

You can manipulate emails for the current user and for the other users if you are admin.

- v4 API:
 - *gitlab.v4.objects.CurrentUserEmail*
 - *gitlab.v4.objects.CurrentUserEmailManager*
 - *gitlab.v4.objects.CurrentUser.emails*
 - *gitlab.v4.objects.UserEmail*
 - *gitlab.v4.objects.UserEmailManager*
 - *gitlab.v4.objects.User.emails*
- GitLab API: <https://docs.gitlab.com/ce/api/users.html#list-emails>

Examples

List emails for a user:

```
emails = user.emails.list()
```

Get an email for a user:

```
email = user.emails.get(email_id)
```

Create an email for a user:

```
k = user.emails.create({'email': 'foo@bar.com'})
```

Delete an email for a user:

```
user.emails.delete(email_id)
# or
email.delete()
```

Users activities

References

- admin only
- v4 API:
 - *gitlab.v4.objects.UserActivities*
 - *gitlab.v4.objects.UserActivitiesManager*
 - *gitlab.Gitlab.user_activities*
- GitLab API: <https://docs.gitlab.com/ce/api/users.html#get-user-activities-admin-only>

Examples

Get the users activities:

```
activities = gl.user_activities.list(
    query_parameters={'from': '2018-07-01'},
    get_all=True,
)
```

Create new runner

References

- New runner registration API endpoint (see Migrating to the new runner registration workflow)
- v4 API:
 - *gitlab.v4.objects.CurrentUserRunner*
 - *gitlab.v4.objects.CurrentUserRunnerManager*
 - *gitlab.Gitlab.user.runners*
- GitLab API : <https://docs.gitlab.com/ee/api/users.html#create-a-runner>

Examples

Create an instance-wide runner:

```
runner = gl.user.runners.create({
    "runner_type": "instance_type",
    "description": "My brand new runner",
    "paused": True,
    "locked": False,
    "run_untagged": True,
    "tag_list": ["linux", "docker", "testing"],
    "access_level": "not_protected"
})
```

Create a group runner:

```
runner = gl.user.runners.create({
    "runner_type": "group_type",
    "group_id": 12345678,
    "description": "My brand new runner",
    "paused": True,
    "locked": False,
    "run_untagged": True,
    "tag_list": ["linux", "docker", "testing"],
    "access_level": "not_protected"
})
```

Create a project runner:

```
runner = gl.user.runners.create({
    "runner_type": "project_type",
    "project_id": 987564321,
    "description": "My brand new runner",
    "paused": True,
    "locked": False,
    "run_untagged": True,
    "tag_list": ["linux", "docker", "testing"],
    "access_level": "not_protected"
})
```

7.5.61 CI/CD Variables

You can configure variables at the instance-level (admin only), or associate variables to projects and groups, to modify pipeline/job scripts behavior.

Warning: Please always follow GitLab's [rules for CI/CD variables](#), especially for values in masked variables. If you do not, your variables may silently fail to save.

Instance-level variables

This endpoint requires admin access.

Reference

- v4 API
 - `gitlab.v4.objects.Variable`
 - `gitlab.v4.objects.VariableManager`
 - `gitlab.Gitlab.variables`
- GitLab API
 - https://docs.gitlab.com/ce/api/instance_level_ci_variables.html

Examples

List all instance variables:

```
variables = gl.variables.list()
```

Get an instance variable by key:

```
variable = gl.variables.get('key_name')
```

Create an instance variable:

```
variable = gl.variables.create({'key': 'key1', 'value': 'value1'})
```

Update a variable value:

```
variable.value = 'new_value'  
variable.save()
```

Remove a variable:

```
gl.variables.delete('key_name')  
# or  
variable.delete()
```

Projects and groups variables

Reference

- v4 API
 - `gitlab.v4.objects.ProjectVariable`
 - `gitlab.v4.objects.ProjectVariableManager`
 - `gitlab.v4.objects.Project.variables`
 - `gitlab.v4.objects.GroupVariable`

- *gitlab.v4.objects.GroupVariableManager*
- *gitlab.v4.objects.Group.variables*
- GitLab API
 - https://docs.gitlab.com/ce/api/instance_level_ci_variables.html
 - https://docs.gitlab.com/ce/api/project_level_variables.html
 - https://docs.gitlab.com/ce/api/group_level_variables.html

Examples

List variables:

```
p_variables = project.variables.list()  
g_variables = group.variables.list()
```

Get a variable:

```
p_var = project.variables.get('key_name')  
g_var = group.variables.get('key_name')
```

Create a variable:

```
var = project.variables.create({'key': 'key1', 'value': 'value1'})  
var = group.variables.create({'key': 'key1', 'value': 'value1'})
```

Update a variable value:

```
var.value = 'new_value'  
var.save()  
# or  
project.variables.update("key1", {"value": "new_value"})
```

Remove a variable:

```
project.variables.delete('key_name')  
group.variables.delete('key_name')  
# or  
var.delete()
```

7.5.62 Sidekiq metrics

Reference

- v4 API:
 - *gitlab.v4.objects.SidekiqManager*
 - *gitlab.Gitlab.sidekiq*
- GitLab API: https://docs.gitlab.com/ce/api/sidekiq_metrics.html

Examples

```
gl.sidekiq.queue_metrics()
gl.sidekiq.process_metrics()
gl.sidekiq.job_stats()
gl.sidekiq.compound_metrics()
```

7.5.63 Wiki pages

References

- v4 API:
 - `gitlab.v4.objects.ProjectWiki`
 - `gitlab.v4.objects.ProjectWikiManager`
 - `gitlab.v4.objects.Project.wikis`
 - `gitlab.v4.objects.GroupWiki`
 - `gitlab.v4.objects.GroupWikiManager`
 - `gitlab.v4.objects.Group.wikis`
- GitLab API for Projects: <https://docs.gitlab.com/ce/api/wikis.html>
- GitLab API for Groups: https://docs.gitlab.com/ee/api/group_wikis.html

Examples

Get the list of wiki pages for a project. These do not contain the contents of the wiki page. You will need to call `get(slug)` to retrieve the content by accessing the `content` attribute:

```
pages = project.wikis.list()
```

Get the list of wiki pages for a group. These do not contain the contents of the wiki page. You will need to call `get(slug)` to retrieve the content by accessing the `content` attribute:

```
pages = group.wikis.list()
```

Get a single wiki page for a project:

```
page = project.wikis.get(page_slug)
```

Get a single wiki page for a group:

```
page = group.wikis.get(page_slug)
```

Get the contents of a wiki page:

```
print(page.content)
```

Create a wiki page on a project level:

```
page = project.wikis.create({'title': 'Wiki Page 1',
                             'content': open(a_file).read()})
```

Update a wiki page:

```
page.content = 'My new content'
page.save()
```

Delete a wiki page:

```
page.delete()
```

File uploads

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectWiki.upload`
 - `gitlab.v4.objects.GroupWiki.upload`
- Gitlab API for Projects: <https://docs.gitlab.com/ee/api/wikis.html#upload-an-attachment-to-the-wiki-repository>
- Gitlab API for Groups: https://docs.gitlab.com/ee/api/group_wikis.html#upload-an-attachment-to-the-wiki-repository

Examples

Upload a file into a project wiki using a filesystem path:

```
page = project.wikis.get(page_slug)
page.upload("filename.txt", filepath="/some/path/filename.txt")
```

Upload a file into a project wiki with raw data:

```
page.upload("filename.txt", filedatal="Raw data")
```

Upload a file into a group wiki using a filesystem path:

```
page = group.wikis.get(page_slug)
page.upload("filename.txt", filepath="/some/path/filename.txt")
```

Upload a file into a group wiki using raw data:

```
page.upload("filename.txt", filedatal="Raw data")
```

7.5.64 Clusters (DEPRECATED)

Warning: Cluster support was deprecated in GitLab 14.5 and disabled by default as of GitLab 15.0

Reference

- v4 API:
 - `gitlab.v4.objects.ProjectCluster`
 - `gitlab.v4.objects.ProjectClusterManager`
 - `gitlab.v4.objects.Project.clusters`
 - `gitlab.v4.objects.GroupCluster`
 - `gitlab.v4.objects.GroupClusterManager`
 - `gitlab.v4.objects.Group.clusters`
- GitLab API: https://docs.gitlab.com/ee/api/project_clusters.html
- GitLab API: https://docs.gitlab.com/ee/api/group_clusters.html

Examples

List clusters for a project:

```
clusters = project.clusters.list()
```

Create an cluster for a project:

```
cluster = project.clusters.create(
{
    "name": "cluster1",
    "platform_kubernetes_attributes": {
        "api_url": "http://url",
        "token": "tokenv1",
    },
})
```

Retrieve a specific cluster for a project:

```
cluster = project.clusters.get(cluster_id)
```

Update an cluster for a project:

```
cluster.platform_kubernetes_attributes = {"api_url": "http://newurl"}
cluster.save()
```

Delete an cluster for a project:

```
cluster = project.clusters.delete(cluster_id)
# or
cluster.delete()
```

List clusters for a group:

```
clusters = group.clusters.list()
```

Create an cluster for a group:

```
cluster = group.clusters.create(  
{  
    "name": "cluster1",  
    "platform_kubernetes_attributes": {  
        "api_url": "http://url",  
        "token": "tokenv",  
    },  
})
```

Retrieve a specific cluster for a group:

```
cluster = group.clusters.get(cluster_id)
```

Update an cluster for a group:

```
cluster.platform_kubernetes_attributes = {"api_url": "http://newurl"}  
cluster.save()
```

Delete an cluster for a group:

```
cluster = group.clusters.delete(cluster_id)  
# or  
cluster.delete()
```

7.6 API reference (gitlab package)

7.6.1 Module contents

Wrapper for the GitLab API.

```
class gitlab.Gitlab(url: str | None = None, private_token: str | None = None, oauth_token: str | None = None,  
                     job_token: str | None = None, ssl_verify: bool | str = True, http_username: str | None =  
                     None, http_password: str | None = None, timeout: float | None = None, api_version: str =  
                     '4', per_page: int | None = None, pagination: str | None = None, order_by: str | None =  
                     None, user_agent: str = 'python-gitlab/4.4.0', retry_transient_errors: bool = False,  
                     keep_base_url: bool = False, **kwargs: Any)
```

Bases: `object`

Represents a GitLab server connection.

Parameters

- `url (str / None)` – The URL of the GitLab server (defaults to <https://gitlab.com>).
- `private_token (str / None)` – The user private token
- `oauth_token (str / None)` – An oauth token
- `job_token (str / None)` – A CI job token

- **ssl_verify** (*bool* / *str*) – Whether SSL certificates should be validated. If the value is a string, it is the path to a CA file used for certificate validation.
- **timeout** (*float* / *None*) – Timeout to use for requests to the GitLab server.
- **http_username** (*str* / *None*) – Username for HTTP authentication
- **http_password** (*str* / *None*) – Password for HTTP authentication
- **api_version** (*str*) – Gitlab API version to use (support for 4 only)
- **pagination** (*str* / *None*) – Can be set to ‘keyset’ to use keyset pagination
- **order_by** (*str* / *None*) – Set order_by globally
- **user_agent** (*str*) – A custom user agent to use for making HTTP requests.
- **retry_transient_errors** (*bool*) – Whether to retry after 500, 502, 503, 504 or 52x responses. Defaults to False.
- **keep_base_url** (*bool*) – keep user-provided base URL for pagination if it differs from response headers
- **session** (*requests.Session*) – HTTP Requests Session
- **backend** (*RequestsBackend*) – Backend that will be used to make http requests
- **per_page** (*int* / *None*)
- **kwargs** (*Any*)

property api_url: str

The computed API base URL.

property api_version: str

The API version used (4 only).

appearance

See [ApplicationAppearanceManager](#)

applications

See [ApplicationManager](#)

audit_events

See [AuditEventManager](#)

auth() → None

Performs an authentication using private token. Warns the user if a potentially misconfigured URL is detected on the client or server side.

The *user* attribute will hold a *gitlab.objects.CurrentUser* object on success.

Return type

None

broadcastmessages

See [BroadcastMessageManager](#)

bulk_import_entities

See [BulkImportAllEntityManager](#)

bulk_imports

See [BulkImportManager](#)

ci_lint

See [CiLintManager](#)

deploykeys

See [DeployKeyManager](#)

deploytokens

See [DeployTokenManager](#)

dockerfiles

See [DockerfileManager](#)

enable_debug(*mask_credentials*: bool = True) → None

Parameters

mask_credentials (bool)

Return type

None

events

See [EventManager](#)

features

See [FeatureManager](#)

classmethod from_config(*gitlab_id*: str | None = None, *config_files*: List[str] | None = None, **kwargs: Any) → Gitlab

Create a Gitlab connection from configuration files.

Parameters

- **gitlab_id** (str / None) – ID of the configuration section.
- **list[str]** (*config_files*) – List of paths to configuration files.
- **config_files** (List[str] / None)
- **kwargs** (Any)

Return type

Gitlab

kwargs:

session requests.Session: Custom requests Session

Returns

A Gitlab connection.

Raises

[gitlab.config.GitlabDataError](#) – If the configuration is not correct.

Parameters

- **gitlab_id** (str / None)
- **config_files** (List[str] / None)
- **kwargs** (Any)

Return type

Gitlab

geonodes

See [GeoNodeManager](#)

get_license(**kwargs: Any) → Dict[str, str | Dict[str, str]]

Retrieve information about the current license.

Parameters

**kwargs (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Returns

The current license information

Return type

Dict[str, str | Dict[str, str]]

gitignores

See [GitignoreManager](#)

gitlabciymls

See [GitlabciymlManager](#)

groups

See [GroupManager](#)

headers

Headers that will be used in request to GitLab

hooks

See [HookManager](#)

http_delete(path: str, **kwargs: Any) → Response

Make a DELETE request to the Gitlab server.

Parameters

- **path (str)** – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projecs')
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The requests object.

Raises

GitlabHttpError – When the return code is not 2xx

Return type

Response

http_get(path: str, query_data: Dict[str, Any] | None = None, streamed: bool = False, raw: bool = False, **kwargs: Any) → Dict[str, Any] | Response

Make a GET request to the Gitlab server.

Parameters

- **path (str)** – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projecs')
- **query_data (Dict[str, Any] | None)** – Data to send as query parameters

- **streamed** (*bool*) – Whether the data should be streamed
- **raw** (*bool*) – If True do not try to parse the output as json
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

A requests result object is streamed is True or the content type is not json. The parsed json data otherwise.

Raises

- **GitlabHttpError** – When the return code is not 2xx
- **GitlabParsingError** – If the json data could not be parsed

Return type

Dict[str, Any] | *Response*

http_head(*path: str, query_data: Dict[str, Any] | None = None, **kwargs: Any*) → *CaseInsensitiveDict[Any]*

Make a HEAD request to the Gitlab server.

Parameters

- **path** (*str*) – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projecs')
- **query_data** (*Dict[str, Any] / None*) – Data to send as query parameters
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo, page, per_page)

Returns

A requests.header object

Raises

GitlabHttpError – When the return code is not 2xx

Return type

CaseInsensitiveDict[Any]

http_list(*path: str, query_data: Dict[str, Any] | None = None, *, iterator: bool | None = None, **kwargs: Any*) → *GitlabList* | *List[Dict[str, Any]]*

Make a GET request to the Gitlab server for list-oriented queries.

Parameters

- **path** (*str*) – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projects')
- **query_data** (*Dict[str, Any] / None*) – Data to send as query parameters
- **iterator** (*bool / None*) – Indicate if should return a generator (True)
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo, page, per_page)

Returns

A list of the objects returned by the server. If *iterator* is True and no pagination-related arguments (*page, per_page, get_all*) are defined then a *GitlabList* object (generator) is returned instead. This object will make API calls when needed to fetch the next items from the server.

Raises

- **GitlabHttpError** – When the return code is not 2xx
- **GitlabParsingError** – If the json data could not be parsed

Return type

`GitlabList | List[Dict[str, Any]]`

http_patch(`path: str, *, query_data: Dict[str, Any] | None = None, post_data: Dict[str, Any] | bytes | None = None, raw: bool = False, **kwargs: Any`) → `Dict[str, Any] | Response`

Make a PATCH request to the Gitlab server.

Parameters

- **path** (`str`) – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projecs')
- **query_data** (`Dict[str, Any] | None`) – Data to send as query parameters
- **post_data** (`Dict[str, Any] | bytes | None`) – Data to send in the body (will be converted to json by default)
- **raw** (`bool`) – If True, do not convert post_data to json
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The parsed json returned by the server.

Raises

- **GitlabHttpError** – When the return code is not 2xx
- **GitlabParsingError** – If the json data could not be parsed

Return type

`Dict[str, Any] | Response`

http_post(`path: str, query_data: Dict[str, Any] | None = None, post_data: Dict[str, Any] | None = None, raw: bool = False, files: Dict[str, Any] | None = None, **kwargs: Any`) → `Dict[str, Any] | Response`

Make a POST request to the Gitlab server.

Parameters

- **path** (`str`) – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projecs')
- **query_data** (`Dict[str, Any] | None`) – Data to send as query parameters
- **post_data** (`Dict[str, Any] | None`) – Data to send in the body (will be converted to json by default)
- **raw** (`bool`) – If True, do not convert post_data to json
- **files** (`Dict[str, Any] | None`) – The files to send to the server
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The parsed json returned by the server if json is return, else the raw content

Raises

- **GitlabHttpError** – When the return code is not 2xx
- **GitlabParsingError** – If the json data could not be parsed

Return type

`Dict[str, Any] | Response`

```
http_put(path: str, query_data: Dict[str, Any] | None = None, post_data: Dict[str, Any] | bytes | BinaryIO | None = None, raw: bool = False, files: Dict[str, Any] | None = None, **kwargs: Any) → Dict[str, Any] | Response
```

Make a PUT request to the Gitlab server.

Parameters

- **path** (*str*) – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projecs')
- **query_data** (*Dict[str, Any]* / *None*) – Data to send as query parameters
- **post_data** (*Dict[str, Any]* / *bytes* / *BinaryIO* / *None*) – Data to send in the body (will be converted to json by default)
- **raw** (*bool*) – If True, do not convert post_data to json
- **files** (*Dict[str, Any]* / *None*) – The files to send to the server
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The parsed json returned by the server.

Raises

- **GitlabHttpError** – When the return code is not 2xx
- **GitlabParsingError** – If the json data could not be parsed

Return type

Dict[str, Any] | *Response*

```
http_request(verb: str, path: str, query_data: Dict[str, Any] | None = None, post_data: Dict[str, Any] | bytes | BinaryIO | None = None, raw: bool = False, streamed: bool = False, files: Dict[str, Any] | None = None, timeout: float | None = None, obey_rate_limit: bool = True, retry_transient_errors: bool | None = None, max_retries: int = 10, **kwargs: Any) → Response
```

Make an HTTP request to the Gitlab server.

Parameters

- **verb** (*str*) – The HTTP method to call ('get', 'post', 'put', 'delete')
- **path** (*str*) – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projecs')
- **query_data** (*Dict[str, Any]* / *None*) – Data to send as query parameters
- **post_data** (*Dict[str, Any]* / *bytes* / *BinaryIO* / *None*) – Data to send in the body (will be converted to json by default)
- **raw** (*bool*) – If True, do not convert post_data to json
- **streamed** (*bool*) – Whether the data should be streamed
- **files** (*Dict[str, Any]* / *None*) – The files to send to the server
- **timeout** (*float* / *None*) – The timeout, in seconds, for the request
- **obey_rate_limit** (*bool*) – Whether to obey 429 Too Many Request responses. Defaults to True.
- **retry_transient_errors** (*bool* / *None*) – Whether to retry after 500, 502, 503, 504 or 52x responses. Defaults to False.
- **max_retries** (*int*) – Max retries after 429 or transient errors, set to -1 to retry forever. Defaults to 10.

- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

A requests result object.

Raises

[GitlabHttpError](#) – When the return code is not 2xx

Return type

[Response](#)

issues

See [IssueManager](#)

issues_statistics

See [IssuesStatisticsManager](#)

keys

See [KeyManager](#)

ldapgroups

See [LDAPGroupManager](#)

licenses

See [LicenseManager](#)

markdown(*text: str, gfm: bool = False, project: str | None = None, **kwargs: Any*) → str

Render an arbitrary Markdown document.

Parameters

- **text** (*str*) – The markdown text to render
- **gfm** (*bool*) – Render text using GitLab Flavored Markdown. Default is False
- **project** (*str / None*) – Full path of a project used a context when *gfm* is True
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Raises

- [GitlabAuthenticationError](#) – If authentication is not correct
- [GitlabMarkdownError](#) – If the server cannot perform the request

Returns

The HTML rendering of the markdown text.

Return type

str

classmethod merge_config(*options: Dict[str, Any], gitlab_id: str | None = None, config_files: List[str] | None = None*) → [Gitlab](#)

Create a Gitlab connection by merging configuration with the following precedence:

1. Explicitly provided CLI arguments,
2. Environment variables,
3. **Configuration files:**
 - a. **explicitly defined config files:**
 - i. via the `-config-file` CLI argument,

- ii. via the `PYTHON_GITLAB_CFG` environment variable,
 - b. user-specific config file,
 - c. system-level config file,
4. Environment variables always present in CI (`CI_SERVER_URL`, `CI_JOB_TOKEN`).

Parameters

- `options (Dict[str, Any])` – A dictionary of explicitly provided key-value options.
- `gitlab_id (str / None)` – ID of the configuration section.
- `config_files (List[str] / None)` – List of paths to configuration files.

Returns

A Gitlab connection.

Return type

`(gitlab.Gitlab)`

Raises

`gitlab.config.GitlabDataError` – If the configuration is not correct.

mergerequests

See `MergeRequestManager`

namespaces

See `NamespaceManager`

notificationsettings

See `NotificationSettingsManager`

pagesdomains

See `PagesDomainManager`

personal_access_tokens

See `PersonalAccessTokenManager`

projects

See `ProjectManager`

registry_repositories

See `RegistryRepositoryManager`

runners

See `RunnerManager`

runners_all

See `RunnerManager`

search(scope: str, search: str, **kwargs: Any) → GitlabList | List[Dict[str, Any]]

Search GitLab resources matching the provided string.'

Parameters

- `scope (str)` – Scope of the search
- `search (str)` – Search string
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabSearchError** – If the server failed to perform the request

Returns

A list of dicts describing the resources found.

Return type

`GitlabList | List[Dict[str, Any]]`

set_license(`license: str, **kwargs: Any`) → `Dict[str, Any]`

Add a new license.

Parameters

- **license (str)** – The license string
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabPostError** – If the server cannot perform the request

Returns

The new license information

Return type

`Dict[str, Any]`

settings

See [ApplicationSettingsManager](#)

sidekiq

See [SidekiqManager](#)

snippets

See [SnippetManager](#)

ssl_verify

Whether SSL certificates should be validated

statistics

See [ApplicationStatisticsManager](#)

timeout

Timeout to use for requests to gitlab server

todos

See [TodoManager](#)

topics

See [TopicManager](#)

property url: str

The user-provided server URL.

user_activities

See [UserActivitiesManager](#)

users

See [UserManager](#)

variables

See [VariableManager](#)

version() → Tuple[str, str]

Returns the version and revision of the gitlab server.

Note that self.version and self.revision will be set on the gitlab object.

Returns

The server version and server revision.

(‘unknown’, ‘unknown’) if the server doesn’t perform as expected.

Return type

`Tuple[str, str]`

exception `gitlab.GitlabActivateError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (`str` / `bytes`)
- **response_code** (`int` / `None`)
- **response_body** (`bytes` / `None`)

Return type

`None`

exception `gitlab.GitlabAttachFileError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (`str` / `bytes`)
- **response_code** (`int` / `None`)
- **response_body** (`bytes` / `None`)

Return type

`None`

exception `gitlab.GitlabAuthenticationError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: [GitlabError](#)

Parameters

- **error_message** (`str` / `bytes`)
- **response_code** (`int` / `None`)
- **response_body** (`bytes` / `None`)

Return type

`None`

```
exception gitlab.GitlabBanError(error_message: str | bytes = "", response_code: int | None = None,
                                 response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabBlockError(error_message: str | bytes = "", response_code: int | None = None,
                                   response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabBuildCancelError(error_message: str | bytes = "", response_code: int | None =
                                         None, response_body: bytes | None = None)
```

Bases: *GitlabCancelError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabBuildEraseError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabRetryError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabBuildPlayError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabRetryError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

exception `gitlab.GitlabBuildRetryError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: *GitlabRetryError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

exception `gitlab.GitlabCancelError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

exception `gitlab.GitlabCherryPickError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

exception `gitlab.GitlabCiLintError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: *GitlabError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabConnectionError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabCreateError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabOperationError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabDeactivateError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabOperationError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabDeleteError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabOperationError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabDeploymentApprovalError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *Exception*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabFollowError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabGetError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabGroupTransferError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabHeadError(error_message: str | bytes = "", response_code: int | None = None,
                                   response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabHousekeepingError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabHttpError(error_message: str | bytes = "", response_code: int | None = None,
                                   response_body: bytes | None = None)
```

Bases: *GitlabError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabImportError(error_message: str | bytes = "", response_code: int | None = None,
                                    response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabInvitationError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabJobCancelError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: [GitlabCancelError](#)

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabJobEraseError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: [GitlabRetryError](#)

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabJobPlayError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: [GitlabRetryError](#)

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabJobRetryError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabRetryError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabLicenseError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
class gitlab.GitlabList(gl: Gitlab, url: str, query_data: Dict[str, Any], get_next: bool = True, **kwargs:
                                         Any)
```

Bases: *object*

Generator representing a list of remote objects.

The object handles the links returned by a query to the API, and will call the API again when needed.

Parameters

- **gl** (*Gitlab*)
- **url** (*str*)
- **query_data** (*Dict[str, Any]*)
- **get_next** (*bool*)
- **kwargs** (*Any*)

property current_page: int

The current page number.

next() → *Dict[str, Any]*

Return type

Dict[str, Any]

property next_page: int | None

The next page number.

If *None*, the current page is the last.

property per_page: int | None

The number of items per page.

property prev_page: int | None

The previous page number.

If None, the current page is the first.

property total: int | None

The total number of items.

property total_pages: int | None

The total number of pages.

exception gitlab.GitlabListError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)

Bases: *GitlabOperationError*

Parameters

- **error_message (str | bytes)**
- **response_code (int | None)**
- **response_body (bytes | None)**

Return type

None

exception gitlab.GitlabMRApprovalError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)

Bases: *GitlabOperationError*

Parameters

- **error_message (str | bytes)**
- **response_code (int | None)**
- **response_body (bytes | None)**

Return type

None

exception gitlab.GitlabMRClosedError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)

Bases: *GitlabOperationError*

Parameters

- **error_message (str | bytes)**
- **response_code (int | None)**
- **response_body (bytes | None)**

Return type

None

exception gitlab.GitlabMRForbiddenError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabMROnBuildSuccessError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabMRRebaseError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabMRResetApprovalError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabMarkdownError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabOperationError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabOwnershipError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabParsingError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabPipelineCancelError(error_message: str | bytes = "", response_code: int | None = None,
                                              response_body: bytes | None = None)
```

Bases: *GitlabCancelError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabPipelinePlayError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabRetryError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabPipelineRetryError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabRetryError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabProjectDeployKeyError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabPromoteError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabProtectError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabRenderError(error_message: str | bytes = "", response_code: int | None = None,
                                    response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabRepairError(error_message: str | bytes = "", response_code: int | None = None,
                                    response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabRestoreError(error_message: str | bytes = "", response_code: int | None = None,
                                    response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabRetryError(error_message: str | bytes = "", response_code: int | None = None,
                                    response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabRevertError(error_message: str | bytes = "", response_code: int | None = None,
                                    response_body: bytes | None = None)
```

Bases: *GitlabOperationError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabRotateError(error_message: str | bytes = "", response_code: int | None = None,
                                    response_body: bytes | None = None)
```

Bases: *GitlabOperationError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabSearchError(error_message: str | bytes = "", response_code: int | None = None,
                                    response_body: bytes | None = None)
```

Bases: *GitlabOperationError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabSetError(error_message: str | bytes = "", response_code: int | None = None,
                                 response_body: bytes | None = None)
```

Bases: *GitlabOperationError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabStopError(error_message: str | bytes = "", response_code: int | None = None,
                                   response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabSubscribeError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabTimeTrackingError(error_message: str | bytes = "", response_code: int | None =
                                         None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabTodoError(error_message: str | bytes = "", response_code: int | None = None,
                                   response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabTopicMergeError(error_message: str | bytes = "", response_code: int | None = None,
                                         response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabTransferProjectError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabUnbanError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabUnblockError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabUnfollowError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabUnsubscribeError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabUpdateError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabUploadError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabUserApproveError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabUserRejectError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.GitlabVerifyError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.RedirectError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
class gitlab.Gitlab(url: str | None = None, private_token: str | None = None, oauth_token: str | None = None, job_token: str | None = None, ssl_verify: bool | str = True, http_username: str | None = None, http_password: str | None = None, timeout: float | None = None, api_version: str = '4', per_page: int | None = None, pagination: str | None = None, order_by: str | None = None, user_agent: str = 'python-gitlab/4.4.0', retry_transient_errors: bool = False, keep_base_url: bool = False, **kwargs: Any)
```

Bases: *object*

Represents a GitLab server connection.

Parameters

- **url** (*str* / *None*) – The URL of the GitLab server (defaults to <https://gitlab.com>).
- **private_token** (*str* / *None*) – The user private token
- **oauth_token** (*str* / *None*) – An oauth token
- **job_token** (*str* / *None*) – A CI job token

- **ssl_verify** (*bool* / *str*) – Whether SSL certificates should be validated. If the value is a string, it is the path to a CA file used for certificate validation.
- **timeout** (*float* / *None*) – Timeout to use for requests to the GitLab server.
- **http_username** (*str* / *None*) – Username for HTTP authentication
- **http_password** (*str* / *None*) – Password for HTTP authentication
- **api_version** (*str*) – Gitlab API version to use (support for 4 only)
- **pagination** (*str* / *None*) – Can be set to ‘keyset’ to use keyset pagination
- **order_by** (*str* / *None*) – Set order_by globally
- **user_agent** (*str*) – A custom user agent to use for making HTTP requests.
- **retry_transient_errors** (*bool*) – Whether to retry after 500, 502, 503, 504 or 52x responses. Defaults to False.
- **keep_base_url** (*bool*) – keep user-provided base URL for pagination if it differs from response headers
- **session** (*requests.Session*) – HTTP Requests Session
- **backend** (*RequestsBackend*) – Backend that will be used to make http requests
- **per_page** (*int* / *None*)
- **kwargs** (*Any*)

property api_url: str

The computed API base URL.

property api_version: str

The API version used (4 only).

appearance

See [ApplicationAppearanceManager](#)

applications

See [ApplicationManager](#)

audit_events

See [AuditEventManager](#)

auth() → None

Performs an authentication using private token. Warns the user if a potentially misconfigured URL is detected on the client or server side.

The *user* attribute will hold a *gitlab.objects.CurrentUser* object on success.

Return type

None

broadcastmessages

See [BroadcastMessageManager](#)

bulk_import_entities

See [BulkImportAllEntityManager](#)

bulk_imports

See [BulkImportManager](#)

ci_lint

See [CiLintManager](#)

deploykeys

See [DeployKeyManager](#)

deploytokens

See [DeployTokenManager](#)

dockerfiles

See [DockerfileManager](#)

enable_debug(*mask_credentials: bool = True*) → None**Parameters**

mask_credentials (bool)

Return type

None

events

See [EventManager](#)

features

See [FeatureManager](#)

classmethod from_config(*gitlab_id: str | None = None, config_files: List[str] | None = None, **kwargs: Any*) → Gitlab

Create a Gitlab connection from configuration files.

Parameters

- **gitlab_id (str / None)** – ID of the configuration section.
- **list[str] (config_files)** – List of paths to configuration files.
- **config_files (List[str] / None)**
- **kwargs (Any)**

Return type

Gitlab

kwargs:

session requests.Session: Custom requests Session

Returns

A Gitlab connection.

Raises

[gitlab.config.GitlabDataError](#) – If the configuration is not correct.

Parameters

- **gitlab_id (str / None)**
- **config_files (List[str] / None)**
- **kwargs (Any)**

Return type

Gitlab

geonodes

See [GeoNodeManager](#)

get_license(kwargs: Any) → Dict[str, str | Dict[str, str]]**

Retrieve information about the current license.

Parameters

• ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Returns

The current license information

Return type

Dict[str, str | Dict[str, str]]

gitignores

See [GitignoreManager](#)

gitlabciymls

See [GitlabciymlManager](#)

groups

See [GroupManager](#)

headers

Headers that will be used in request to GitLab

hooks

See [HookManager](#)

http_delete(path: str, **kwargs: Any) → Response

Make a DELETE request to the Gitlab server.

Parameters

- **path (str)** – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projects')
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The requests object.

Raises

GitlabHttpError – When the return code is not 2xx

Return type

Response

http_get(path: str, query_data: Dict[str, Any] | None = None, streamed: bool = False, raw: bool = False, **kwargs: Any) → Dict[str, Any] | Response

Make a GET request to the Gitlab server.

Parameters

- **path (str)** – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projects')

- **query_data** (`Dict[str, Any]` / `None`) – Data to send as query parameters
- **streamed** (`bool`) – Whether the data should be streamed
- **raw** (`bool`) – If True do not try to parse the output as json
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

A requests result object is streamed is True or the content type is not json. The parsed json data otherwise.

Raises

- **GitlabHttpError** – When the return code is not 2xx
- **GitlabParsingError** – If the json data could not be parsed

Return type

`Dict[str, Any]` | `Response`

http_head(`path: str, query_data: Dict[str, Any] | None = None, **kwargs: Any`) → `CaseInsensitiveDict[Any]`

Make a HEAD request to the Gitlab server.

Parameters

- **path** (`str`) – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projects')
- **query_data** (`Dict[str, Any]` / `None`) – Data to send as query parameters
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo, page, per_page)

Returns

A requests.header object

Raises

GitlabHttpError – When the return code is not 2xx

Return type

`CaseInsensitiveDict[Any]`

http_list(`path: str, query_data: Dict[str, Any] | None = None, *, iterator: bool | None = None, **kwargs: Any`) → `GitlabList` | `List[Dict[str, Any]]`

Make a GET request to the Gitlab server for list-oriented queries.

Parameters

- **path** (`str`) – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projects')
- **query_data** (`Dict[str, Any]` / `None`) – Data to send as query parameters
- **iterator** (`bool` / `None`) – Indicate if should return a generator (True)
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo, page, per_page)

Returns

A list of the objects returned by the server. If `iterator` is True and no pagination-related arguments (`page`, `per_page`, `get_all`) are defined then a `GitlabList` object (generator) is returned instead. This object will make API calls when needed to fetch the next items from the server.

Raises

- **GitlabHttpError** – When the return code is not 2xx
- **GitlabParsingError** – If the json data could not be parsed

Return type

GitlabList | List[Dict[str, Any]]

http_patch(*path: str, *, query_data: Dict[str, Any] | None = None, post_data: Dict[str, Any] | bytes | None = None, raw: bool = False, **kwargs: Any*) → *Dict[str, Any] | Response*

Make a PATCH request to the Gitlab server.

Parameters

- **path (str)** – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projects')
- **query_data (Dict[str, Any] / None)** – Data to send as query parameters
- **post_data (Dict[str, Any] / bytes / None)** – Data to send in the body (will be converted to json by default)
- **raw (bool)** – If True, do not convert post_data to json
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The parsed json returned by the server.

Raises

- **GitlabHttpError** – When the return code is not 2xx
- **GitlabParsingError** – If the json data could not be parsed

Return type

Dict[str, Any] | Response

http_post(*path: str, query_data: Dict[str, Any] | None = None, post_data: Dict[str, Any] | None = None, raw: bool = False, files: Dict[str, Any] | None = None, **kwargs: Any*) → *Dict[str, Any] | Response*

Make a POST request to the Gitlab server.

Parameters

- **path (str)** – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projects')
- **query_data (Dict[str, Any] / None)** – Data to send as query parameters
- **post_data (Dict[str, Any] / None)** – Data to send in the body (will be converted to json by default)
- **raw (bool)** – If True, do not convert post_data to json
- **files (Dict[str, Any] / None)** – The files to send to the server
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The parsed json returned by the server if json is return, else the raw content

Raises

- **GitlabHttpError** – When the return code is not 2xx
- **GitlabParsingError** – If the json data could not be parsed

Return type*Dict[str, Any] | Response***http_put**(*path: str, query_data: Dict[str, Any] | None = None, post_data: Dict[str, Any] | bytes | BinaryIO | None = None, raw: bool = False, files: Dict[str, Any] | None = None, **kwargs: Any*) → *Dict[str, Any] | Response*

Make a PUT request to the Gitlab server.

Parameters

- **path (str)** – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projects')
- **query_data (Dict[str, Any] | None)** – Data to send as query parameters
- **post_data (Dict[str, Any] | bytes | BinaryIO | None)** – Data to send in the body (will be converted to json by default)
- **raw (bool)** – If True, do not convert post_data to json
- **files (Dict[str, Any] | None)** – The files to send to the server
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The parsed json returned by the server.

Raises

- **GitlabHttpError** – When the return code is not 2xx
- **GitlabParsingError** – If the json data could not be parsed

Return type*Dict[str, Any] | Response***http_request**(*verb: str, path: str, query_data: Dict[str, Any] | None = None, post_data: Dict[str, Any] | bytes | BinaryIO | None = None, raw: bool = False, streamed: bool = False, files: Dict[str, Any] | None = None, timeout: float | None = None, obey_rate_limit: bool = True, retry_transient_errors: bool | None = None, max_retries: int = 10, **kwargs: Any*) → *Response*

Make an HTTP request to the Gitlab server.

Parameters

- **verb (str)** – The HTTP method to call ('get', 'post', 'put', 'delete')
- **path (str)** – Path or full URL to query ('/projects' or 'http://whatever/v4/api/projects')
- **query_data (Dict[str, Any] | None)** – Data to send as query parameters
- **post_data (Dict[str, Any] | bytes | BinaryIO | None)** – Data to send in the body (will be converted to json by default)
- **raw (bool)** – If True, do not convert post_data to json
- **streamed (bool)** – Whether the data should be streamed
- **files (Dict[str, Any] | None)** – The files to send to the server
- **timeout (float | None)** – The timeout, in seconds, for the request
- **obey_rate_limit (bool)** – Whether to obey 429 Too Many Requests responses. Defaults to True.

- **retry_transient_errors** (`bool` / `None`) – Whether to retry after 500, 502, 503, 504 or 52x responses. Defaults to False.
- **max_retries** (`int`) – Max retries after 429 or transient errors, set to -1 to retry forever. Defaults to 10.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

A requests result object.

Raises

`GitlabHttpError` – When the return code is not 2xx

Return type

`Response`

issues

See [IssueManager](#)

issues_statistics

See [IssuesStatisticsManager](#)

keys

See [KeyManager](#)

ldapgroups

See [LDAPGroupManager](#)

licenses

See [LicenseManager](#)

markdown(`text: str, gfm: bool = False, project: str | None = None, **kwargs: Any`) → str

Render an arbitrary Markdown document.

Parameters

- **text** (`str`) – The markdown text to render
- **gfm** (`bool`) – Render text using GitLab Flavored Markdown. Default is False
- **project** (`str` / `None`) – Full path of a project used a context when `gfm` is True
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

• `GitlabAuthenticationError` – If authentication is not correct

• `GitlabMarkdownError` – If the server cannot perform the request

Returns

The HTML rendering of the markdown text.

Return type

`str`

classmethod merge_config(`options: Dict[str, Any], gitlab_id: str | None = None, config_files: List[str] | None = None`) → `Gitlab`

Create a Gitlab connection by merging configuration with the following precedence:

1. Explicitly provided CLI arguments,
2. Environment variables,

3. Configuration files:

a. explicitly defined config files:

- i. via the `-config-file` CLI argument,
- ii. via the `PYTHON_GITLAB_CFG` environment variable,

- b. user-specific config file,
- c. system-level config file,

4. Environment variables always present in CI (CI_SERVER_URL, CI_JOB_TOKEN).

Parameters

- `options` (`Dict[str, Any]`) – A dictionary of explicitly provided key-value options.
- `gitlab_id` (`str / None`) – ID of the configuration section.
- `config_files` (`List[str] / None`) – List of paths to configuration files.

Returns

A Gitlab connection.

Return type

`(gitlab.Gitlab)`

Raises

`gitlab.config.GitlabDataError` – If the configuration is not correct.

mergerequests

See `MergeRequestManager`

namespaces

See `NamespaceManager`

notificationsettings

See `NotificationSettingsManager`

pagesdomains

See `PagesDomainManager`

personal_access_tokens

See `PersonalAccessTokenManager`

projects

See `ProjectManager`

registry_repositories

See `RegistryRepositoryManager`

runners

See `RunnerManager`

runners_all

See `RunnerManager`

search(`scope: str, search: str, **kwargs: Any`) → `GitlabList | List[Dict[str, Any]]`

Search GitLab resources matching the provided string.'

Parameters

- **scope (str)** – Scope of the search
- **search (str)** – Search string
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabSearchError** – If the server failed to perform the request

Returns

A list of dicts describing the resources found.

Return type

`GitlabList | List[Dict[str, Any]]`

set_license(license: str, **kwargs: Any) → Dict[str, Any]

Add a new license.

Parameters

- **license (str)** – The license string
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabPostError** – If the server cannot perform the request

Returns

The new license information

Return type

`Dict[str, Any]`

settings

See [ApplicationSettingsManager](#)

sidekiq

See [SidekiqManager](#)

snippets

See [SnippetManager](#)

ssl_verify

Whether SSL certificates should be validated

statistics

See [ApplicationStatisticsManager](#)

timeout

Timeout to use for requests to gitlab server

todos

See [TodoManager](#)

topics

See [TopicManager](#)

property url: str

The user-provided server URL.

user: objects.CurrentUser | None**user_activities**

See [UserActivitiesManager](#)

users

See [UserManager](#)

variables

See [VariableManager](#)

version() → Tuple[str, str]

Returns the version and revision of the gitlab server.

Note that self.version and self.revision will be set on the gitlab object.

Returns**The server version and server revision.**

(‘unknown’, ‘unknown’) if the server doesn’t perform as expected.

Return type

Tuple[str, str]

class gitlab.GitlabList(gl: Gitlab, url: str, query_data: Dict[str, Any], get_next: bool = True, **kwargs: Any)

Bases: `object`

Generator representing a list of remote objects.

The object handles the links returned by a query to the API, and will call the API again when needed.

Parameters

- **gl (Gitlab)**
- **url (str)**
- **query_data (Dict[str, Any])**
- **get_next (bool)**
- **kwargs (Any)**

property current_page: int

The current page number.

next() → Dict[str, Any]**Return type**

Dict[str, Any]

property next_page: int | None

The next page number.

If None, the current page is the last.

property per_page: int | None

The number of items per page.

```
property prev_page: int | None
    The previous page number.
    If None, the current page is the first.

property total: int | None
    The total number of items.

property total_pages: int | None
    The total number of pages.
```

7.6.2 Subpackages

gitlab.v4 package

Submodules

gitlab.v4.objects module

```
class gitlab.v4.objects.Any(*args, **kwargs)
```

Bases: `object`

Special type indicating an unconstrained type.

- Any is compatible with every type.
- Any assumed to have all methods.
- All values assumed to be instances of Any.

Note that all the above statements are true from the point of view of static type checkers. At runtime, Any should not be used with instance checks.

```
class gitlab.v4.objects.Application(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:
    bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin, RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.ApplicationAppearance(manager: RESTManager, attrs: Dict[str, Any], *,
    created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin, RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.ApplicationAppearanceManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *GetWithoutIdMixin*, *UpdateMixin*, *RESTManager*

Object Creation

Object update

Optional attributes for object update:

- title
- description
- logo
- header_logo
- favicon
- new_project_guidelines
- header_message
- footer_message
- message_background_color
- message_font_color
- email_header_and_footer_enabled

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

get(***kwargs*: *Any*) → *ApplicationAppearance*

Retrieve a single object.

Parameters

****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ApplicationAppearance

update(*id*: *int* | *str* | *None* = *None*, *new_data*: *Dict[str, Any]* | *None* = *None*, ***kwargs*: *Any*) → *Dict[str, Any]*

Update an object on the server.

Parameters

- **id** (*int* / *str* / *None*) – ID of the object to update (can be *None* if not required)
- **new_data** (*Dict[str, Any]* / *None*) – the update data for the object
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The new object data (*not* a RESTObject)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the server cannot perform the request

Return type

Dict[str, Any]

class `gitlab.v4.objects.ApplicationManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: *ListMixin, CreateMixin, DeleteMixin, RESTManager*

Object Creation

Required attributes for object create:

- name
- redirect_uri
- scopes

Optional attributes for object create:

- confidential

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

class `gitlab.v4.objects.ApplicationSettings(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: *SaveMixin, RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

class `gitlab.v4.objects.ApplicationSettingsManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: *GetWithoutIdMixin, UpdateMixin, RESTManager*

Object Creation

Object update

Optional attributes for object update:

- id
- default_projects_limit
- signup_enabled
- password_authentication_enabled_for_web
- gravatar_enabled

- sign_in_text
- created_at
- updated_at
- home_page_url
- default_branch_protection
- restricted_visibility_levels
- max_attachment_size
- session_expire_delay
- default_project_visibility
- default_snippet_visibility
- default_group_visibility
- outbound_local_requests_whitelist
- disabled_oauth_sign_in_sources
- domain_whitelist
- domain_blacklist_enabled
- domain_blacklist
- domain_allowlist
- domain_denylist_enabled
- domain_denylist
- external_authorization_service_enabled
- external_authorization_service_url
- external_authorization_service_default_label
- external_authorization_service_timeout
- import_sources
- user_oauth_applications
- after_sign_out_path
- container_registry_token_expire_delay
- repository_storages
- plantuml_enabled
- plantuml_url
- terminal_max_session_time
- polling_interval_multiplier
- rsa_key_restriction
- dsa_key_restriction
- ecdsa_key_restriction
- ed25519_key_restriction

- `first_day_of_week`
- `enforce_terms`
- `terms`
- `performance_bar_allowed_group_id`
- `instance_statistics_visibility_private`
- `user_show_add_ssh_key_message`
- `file_template_project_id`
- `local_markdown_version`
- `asset_proxy_enabled`
- `asset_proxy_url`
- `asset_proxy_whitelist`
- `asset_proxy_allowlist`
- `geo_node_allowed_ips`
- `allow_local_requests_from_hooks_and_services`
- `allow_local_requests_from_web_hooks_and_services`
- `allow_local_requests_from_system_hooks`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(**kwargs: Any) → ApplicationSettings`

Retrieve a single object.

Parameters

- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ApplicationSettings`

`update(id: int | str | None = None, new_data: Dict[str, Any] | None = None, **kwargs: Any) → Dict[str, Any]`

Update an object on the server.

Parameters

- `id (int / str / None)` – ID of the object to update (can be None if not required)
- `new_data (Dict[str, Any] / None)` – the update data for the object
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The new object data (*not* a RESTObject)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the server cannot perform the request

Return type

Dict[str, Any]

```
class gitlab.v4.objects.ApplicationStatistics(manager: RESTManager, attrs: Dict[str, Any], *,  
                                              created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ApplicationStatisticsManager(gl: Gitlab, parent: RESTObject | None =  
                                                    None)
```

Bases: *GetWithoutIdMixin, RESTManager*

Object Creation**Object update****Parameters**

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

get(**kwargs: Any) → *ApplicationStatistics*

Retrieve a single object.

Parameters

****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ApplicationStatistics

```
class gitlab.v4.objects.AuditEvent(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:  
                                         bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)

- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.AuditEventManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `RetrieveMixin, RESTManager`

Object listing filters

- `created_after`
- `created_before`
- `entity_type`
- `entity_id`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject | None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → AuditEvent`

Retrieve a single object.

Parameters

- `id (str | int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`AuditEvent`

`class gitlab.v4.objects.BroadcastMessage(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.BroadcastMessageManager(gl: Gitlab, parent: RESTObject | None = None)
Bases: CRUDMixin, RESTManager
```

Object Creation

Required attributes for object create:

- message

Optional attributes for object create:

- starts_at
- ends_at
- color
- font
- target_access_levels

Object update

Optional attributes for object update:

- message
- starts_at
- ends_at
- color
- font
- target_access_levels

Parameters

- gl ([Gitlab](#))
- parent ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = *False*, ***kwargs*: Any) → BroadcastMessage

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[BroadcastMessage](#)

```
class gitlab.v4.objects.BulkImport(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RefreshMixin, RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

entities: *BulkImportEntityManager*

```
class gitlab.v4.objects.BulkImportAllEntity(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.BulkImportAllEntityManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin, RESTManager*

Object listing filters

- `sort`
- `status`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
class gitlab.v4.objects.BulkImportEntity(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RefreshMixin, RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.BulkImportEntityManager(gl: Gitlab, parent: RESTObject | None = None)
Bases: RetrieveMixin, RESTManager
```

Object listing filters

- sort
- status

Object Creation

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → BulkImportEntity
```

Retrieve a single object.

Parameters

- **id** ([str](#) / [int](#)) – ID of the object to retrieve
- **lazy** ([bool](#)) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[BulkImportEntity](#)

```
class gitlab.v4.objects.BulkImportManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: CreateMixin, RetrieveMixin, RESTManager

Object listing filters

- sort
- status

Object Creation

Required attributes for object create:

- configuration
- entities

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = False, ***kwargs*: Any) → BulkImport

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

BulkImport

class gitlab.v4.objects.CiLint(*manager*: RESTManager, *attrs*: Dict[str, Any], *, *created_from_list*: bool = False, *lazy*: bool = False)

Bases: RESTObject

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

class gitlab.v4.objects.CiLintManager(*gl*: Gitlab, *parent*: RESTObject | None = None)

Bases: CreateMixin, RESTManager

Object Creation

Required attributes for object create:

- content

Optional attributes for object create:

- include_merged_yaml
- include_jobs

Object update

Parameters

- **gl** (Gitlab)
- **parent** (RESTObject | None)

validate(**args*: Any, ***kwargs*: Any) → None

Raise an error if the CI Lint results are not valid.

This is a custom python-gitlab method to wrap lint endpoints.

Parameters

- **args** (`Any`)
- **kwargs** (`Any`)

Return type

None

```
class gitlab.v4.objects.CurrentUser(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:  
                                bool = False, lazy: bool = False)
```

Bases: `RESTObject`**Parameters**

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

emails: `CurrentUserEmailManager`**gpgkeys:** `CurrentUserGPGKeyManager`**keys:** `CurrentUserKeyManager`**runners:** `CurrentUserRunnerManager`**status:** `CurrentUserStatusManager`

```
class gitlab.v4.objects.CurrentUserEmail(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin, RESTObject`**Parameters**

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.CurrentUserEmailManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RetrieveMixin, CreateMixin, DeleteMixin, RESTManager`**Object Creation**

Required attributes for object create:

- `email`

Object update**Parameters**

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

get(*id*: str | int, *lazy*: bool = False, **kwargs: Any) → CurrentUserEmail

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

CurrentUserEmail

class gitlab.v4.objects.CurrentUserGPGKey(*manager*: RESTManager, *attrs*: Dict[str, Any], *, *created_from_list*: bool = False, *lazy*: bool = False)

Bases: *ObjectDeleteMixin*, RESTObject

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

class gitlab.v4.objects.CurrentUserGPGKeyManager(*gl*: Gitlab, *parent*: RESTObject | None = None)

Bases: *RetrieveMixin*, *CreateMixin*, *DeleteMixin*, RESTManager

Object Creation

Required attributes for object create:

- key

Object update

Parameters

- **gl** (Gitlab)
- **parent** (RESTObject | None)

get(*id*: str | int, *lazy*: bool = False, **kwargs: Any) → CurrentUserGPGKey

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

CurrentUserGPGKey

```
class gitlab.v4.objects.CurrentUserKey(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.CurrentUserKeyManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin, CreateMixin, DeleteMixin, RESTManager*

Object Creation

Required attributes for object create:

- **title**
- **key**

Object update**Parameters**

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → CurrentUserKey
```

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

CurrentUserKey

```
class gitlab.v4.objects.CurrentUserManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *GetWithoutIdMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

```
get(**kwargs: Any) → CurrentUser
```

Retrieve a single object.

Parameters

****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[CurrentUser](#)

```
class gitlab.v4.objects.CurrentUserRunner(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict\[str, Any\]](#))
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

```
class gitlab.v4.objects.CurrentUserRunnerManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CreateMixin, RESTManager*

Object Creation

Required attributes for object create:

- `runner_type`

Optional attributes for object create:

- `group_id`
- `project_id`
- `description`
- `paused`
- `locked`
- `run_untagged`

- `tag_list`
- `access_level`
- `maximum_timeout`
- `maintenance_note`

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
class gitlab.v4.objects.CurrentUserStatus(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.CurrentUserStatusManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `GetWithoutIdMixin, UpdateMixin, RESTManager`

Object Creation

Object update

Optional attributes for object update:

- `emoji`
- `message`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
get(**kwargs: Any) → CurrentUserStatus
```

Retrieve a single object.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`CurrentUserStatus`

```
class gitlab.v4.objects.DeployKey(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:  
    bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.DeployKeyManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
class gitlab.v4.objects.DeployToken(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:  
    bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.DeployTokenManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
class gitlab.v4.objects.Dockerfile(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:  
    bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.DockerfileManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin*, *RESTManager*

Object Creation

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → Dockerfile
```

Retrieve a single object.

Parameters

- **id** ([str](#) / [int](#)) – ID of the object to retrieve
- **lazy** ([bool](#)) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[Dockerfile](#)

```
class gitlab.v4.objects.Event(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict](#)[[str](#), [Any](#)])
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

```
class gitlab.v4.objectsEventManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin*, *RESTManager*

Object listing filters

- **action**
- **target_type**
- **before**
- **after**
- **sort**
- **scope**

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
class gitlab.v4.objects.Feature(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin`, `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.FeatureManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `ListMixin`, `DeleteMixin`, `RESTManager`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
set(name: str, value: bool | int, feature_group: str | None = None, user: str | None = None, group: str | None = None, project: str | None = None, **kwargs: Any) → Feature
```

Create or update the object.

Parameters

- **name** (`str`) – The value to set for the object
- **value** (`bool` / `int`) – The value to set for the object
- **feature_group** (`str` / `None`) – A feature group name
- **user** (`str` / `None`) – A GitLab username
- **group** (`str` / `None`) – A GitLab group
- **project** (`str` / `None`) – A GitLab project in form group/project
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabSetError** – If an error occurred

Returns

The created/updated attribute

Return type

`Feature`

```
class gitlab.v4.objects.GenericPackage(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.GenericPackageManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RESTManager`

Object Creation

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

```
download(package_name: str, package_version: str, file_name: str, streamed: bool = False, action:  
        Callable[[bytes], None] | None = None, chunk_size: int = 1024, *, iterator: bool = False,  
        **kwargs: Any) → bytes | Iterator[Any] | None
```

Download a generic package.

Parameters

- `package_name` (`str`) – The package name.
- `package_version` (`str`) – The package version.
- `file_name` (`str`) – The name of the file in the registry
- `streamed` (`bool`) – If True the data will be processed by chunks of `chunk_size` and each chunk is passed to `action` for treatment
- `iterator` (`bool`) – If True directly return the underlying response iterator
- `action` (`Callable[[bytes], None]` / `None`) – Callable responsible of dealing with chunk of data
- `chunk_size` (`int`) – Size of each chunk
- `**kwargs` (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server failed to perform the request

Returns

The package content if `streamed` is False, `None` otherwise

Return type

`bytes` | `Iterator[Any]` | `None`

```
upload(package_name: str, package_version: str, file_name: str, path: str | Path | None = None, select: str | None = None, data: bytes | BinaryIO | None = None, **kwargs: Any) → GenericPackage
```

Upload a file as a generic package.

Parameters

- **package_name** (`str`) – The package name. Must follow generic package name regex rules
- **package_version** (`str`) – The package version. Must follow semantic version regex rules
- **file_name** (`str`) – The name of the file as uploaded in the registry
- **path** (`str` / `Path` / `None`) – The path to a local file to upload
- **select** (`str` / `None`) – GitLab API accepts a value of ‘package_file’
- **data** (`bytes` / `BinaryIO` / `None`)
- **kwargs** (`Any`)

Raises

- **GitlabConnectionError** – If the server cannot be reached
- **GitlabUploadError** – If the file upload fails
- **GitlabUploadError** – If path cannot be read
- **GitlabUploadError** – If both path and data are passed

Returns

An object storing the metadata of the uploaded package.

Return type

`GenericPackage`

https://docs.gitlab.com/ee/user/packages/generic_packages/

```
class gitlab.v4.objects.GeoNode(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin`, `ObjectDeleteMixin`, `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
repair(**kwargs: Any) → None
```

Repair the OAuth authentication of the geo node.

Parameters

****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabRepairError** – If the server failed to perform the request

Return type

None

status(**kwargs: Any) → Dict[str, Any]

Get the status of the geo node.

Parameters

**kwargs (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

The status of the geo node

Return type

Dict[str, Any]

class gitlab.v4.objects.GeoNodeManager(gl: Gitlab, parent: RESTObject | None = None)

Bases: RetrieveMixin, UpdateMixin, DeleteMixin, RESTManager

Object Creation**Object update**

Optional attributes for object update:

- enabled
- url
- files_max_capacity
- repos_max_capacity

Parameters

- gl (Gitlab)
- parent (RESTObject / None)

current_failures(**kwargs: Any) → List[Dict[str, Any]]

Get the list of failures on the current geo node.

Parameters

**kwargs (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

The list of failures

Return type

List[Dict[str, Any]]

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *GeoNode*

Retrieve a single object.

Parameters

- **id (str / int)** – ID of the object to retrieve
- **lazy (bool)** – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

GeoNode

status(***kwargs: Any*) → *List[Dict[str, Any]]*

Get the status of all the geo nodes.

Parameters

- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

The status of all the geo nodes

Return type

List[Dict[str, Any]]

class gitlab.v4.objects.Gitignore(*manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False*)

Bases: *RESTObject*

Parameters

- **manager (RESTManager)**
- **attrs (Dict[str, Any])**
- **created_from_list (bool)**
- **lazy (bool)**

class gitlab.v4.objects.GitignoreManager(*gl: Gitlab, parent: RESTObject | None = None*)

Bases: *RetrieveMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl (Gitlab)**

- **parent** (`RESTObject` / `None`)

get(*id*: `str` | `int`, *lazy*: `bool` = `False`, `**kwargs`: `Any`) → `Gitignore`
Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated `RESTObject`.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`Gitignore`

class `gitlab.v4.objects.Gitlabciyml`(*manager*: `RESTManager`, *attrs*: `Dict[str, Any]`, *, *created_from_list*: `bool` = `False`, *lazy*: `bool` = `False`)

Bases: `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

class `gitlab.v4.objects.GitlabciymlManager`(*gl*: `Gitlab`, *parent*: `RESTObject` | `None` = `None`)

Bases: `RetrieveMixin`, `RESTManager`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

get(*id*: `str` | `int`, *lazy*: `bool` = `False`, `**kwargs`: `Any`) → `Gitlabciyml`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated `RESTObject`.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`Gitlabciml`

```
class gitlab.v4.objects.Group(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

`access_tokens: GroupAccessTokenManager`

`accessrequests: GroupAccessRequestManager`

`audit_events: GroupAuditEventManager`

`badges: GroupBadgeManager`

`billable_members: GroupBillableMemberManager`

`boards: GroupBoardManager`

`clusters: GroupClusterManager`

`customattributes: GroupCustomAttributeManager`

`deploytokens: GroupDeployTokenManager`

`descendant_groups: GroupDescendantGroupManager`

`epics: GroupEpicManager`

`exports: GroupExportManager`

`hooks: GroupHookManager`

`imports: GroupImportManager`

`invitations: GroupInvitationManager`

`issues: GroupIssueManager`

`issues_statistics: GroupIssuesStatisticsManager`

`iterations: GroupIterationManager`

`labels: GroupLabelManager`

`ldap_group_links: GroupLDAPGroupLinkManager`

`ldap_sync(**kwargs: Any) → None`

Sync LDAP groups.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabCreateError` – If the server cannot perform the request

Return type

None

`members: GroupMemberManager`

`members_all: GroupMemberAllManager`

`mergerequests: GroupMergeRequestManager`

`milestones: GroupMilestoneManager`

`notificationsettings: GroupNotificationSettingsManager`

`packages: GroupPackageManager`

`projects: GroupProjectManager`

`pushrules: GroupPushRulesManager`

`registry_repositories: GroupRegistryRepositoryManager`

`restore(**kwargs: Any) → None`

Restore a group marked for deletion..

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabRestoreError` – If the server failed to perform the request

Return type

None

`runners: GroupRunnerManager`

`saml_group_links: GroupSAMLGroupLinkManager`

`search(scope: str, search: str, **kwargs: Any) → GitlabList | List[Dict[str, Any]]`

Search the group resources matching the provided string.

Parameters

- `scope (str)` – Scope of the search
- `search (str)` – Search string
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabSearchError** – If the server failed to perform the request

Returns

A list of dicts describing the resources found.

Return type

`GitlabList | List[Dict[str, Any]]`

share(`group_id: int, group_access: int, expires_at: str | None = None, **kwargs: Any`) → `None`

Share the group with a group.

Parameters

- **group_id** (`int`) – ID of the group.
- **group_access** (`int`) – Access level for the group.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)
- **expires_at** (`str / None`)
- ****kwargs**

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the server failed to perform the request

Returns

`Group`

Return type

`None`

shared_projects: `SharedProjectManager`

subgroups: `GroupSubgroupManager`

transfer(`group_id: int | None = None, **kwargs: Any`) → `None`

Transfer the group to a new parent group or make it a top-level group.

Requires GitLab 14.6.

Parameters

- **group_id** (`int / None`) – ID of the new parent group. When not specified, the group to transfer is instead turned into a top-level group.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGroupTransferError** – If the group could not be transferred

Return type

`None`

transfer_project(`project_id: int, **kwargs: Any`) → `None`

Transfer a project to this group.

Parameters

- **to_project_id** – ID of the project to transfer
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)
- **project_id** (*int*)
- ****kwargs**

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabTransferProjectError** – If the project could not be transferred

Return type

None

unshare(*group_id*: *int*, ****kwargs**: [Any](#)) → None

Delete a shared group link within a group.

Parameters

- **group_id** (*int*) – ID of the group.
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeleteError** – If the server failed to perform the request

Return type

None

variables: [GroupVariableManager](#)**wikis**: [GroupWikiManager](#)**class** gitlab.v4.objects.[GroupAccessRequest](#)(*manager*: RESTManager, *attrs*: Dict[str, Any], *, *created_from_list*: bool = False, *lazy*: bool = False)Bases: [AccessRequestMixin](#), [ObjectDeleteMixin](#), RESTObject**Parameters**

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

class gitlab.v4.objects.[GroupAccessRequestManager](#)(*gl*: Gitlab, *parent*: RESTObject | None = None)Bases: [ListMixin](#), [CreateMixin](#), [DeleteMixin](#), RESTManager**Object Creation****Object update****Parameters**

- **gl** (Gitlab)
- **parent** (RESTObject / None)

```
class gitlab.v4.objects.GroupAccessToken(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin`, `ObjectRotateMixin`, `RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.GroupAccessTokenManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `CreateMixin`, `DeleteMixin`, `RetrieveMixin`, `RotateMixin`, `RESTManager`

Object Creation

Required attributes for object create:

- `name`
- `scopes`

Optional attributes for object create:

- `access_level`
- `expires_at`

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` | `None`)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupAccessToken
```

Retrieve a single object.

Parameters

- `id` (`str` | `int`) – ID of the object to retrieve
- `lazy` (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs` (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupAccessToken`

```
class gitlab.v4.objects.GroupAuditEvent(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.GroupAuditEventManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RetrieveMixin, RESTManager`

Object listing filters

- `created_after`
- `created_before`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupAuditEvent
```

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`GroupAuditEvent`

```
class gitlab.v4.objects.GroupBadge(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.GroupBadgeManager(gl: Gitlab, parent: RESTObject | None = None)
Bases: BadgeRenderMixin, CRUDMixin, RESTManager
```

Object Creation

Required attributes for object create:

- `link_url`
- `image_url`

Object update

Optional attributes for object update:

- `link_url`
- `image_url`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupBadge`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupBadge`

```
class gitlab.v4.objects.GroupBillableMember(manager: RESTManager, attrs: Dict[str, Any], *,
                                             created_from_list: bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`memberships: GroupBillableMemberMembershipManager`

```
class gitlab.v4.objects.GroupBillableMemberManager(gl: Gitlab, parent: RESTObject | None = None)
Bases: ListMixin, DeleteMixin, RESTManager
```

Object listing filters

- search
- sort

Object Creation

Object update

Parameters

- **gl** (Gitlab)
- **parent** (RESTObject / None)

```
class gitlab.v4.objects.GroupBillableMemberMembership(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: RESTObject

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

```
class gitlab.v4.objects.GroupBillableMemberMembershipManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: ListMixin, RESTManager

Object Creation

Object update

Parameters

- **gl** (Gitlab)
- **parent** (RESTObject / None)

```
class gitlab.v4.objects.GroupBoard(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: SaveMixin, ObjectDeleteMixin, RESTObject

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

lists: GroupBoardListManager

```
class gitlab.v4.objects.GroupBoardList(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin`, `ObjectDeleteMixin`, `RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.GroupBoardListManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `CRUDMixin`, `RESTManager`

Object Creation

Mutually exclusive attributes for object create:

- `label_id`
- `assignee_id`
- `milestone_id`

Object update

Required attributes for object update:

- `position`

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupBoardList
```

Retrieve a single object.

Parameters

- `id` (`str` / `int`) – ID of the object to retrieve
- `lazy` (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs` (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated `RESTObject`.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupBoardList`

```
class gitlab.v4.objects.GroupBoardManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- name

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupBoard
```

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

GroupBoard

```
class gitlab.v4.objects.GroupCluster(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.GroupClusterManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- name
- platform_kubernetes_attributes

Optional attributes for object create:

- domain
- enabled
- managed
- environment_scope

Object update

Optional attributes for object update:

- name
- domain
- management_project_id
- platform_kubernetes_attributes
- environment_scope

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

`create(data: Dict[str, Any] | None = None, **kwargs: Any) → GroupCluster`

Create a new object.

Parameters

- `data` (`Dict[str, Any]` / `None`) – Parameters to send to the server to create the resource
- `**kwargs` (`Any`) – Extra options to send to the server (e.g. `sudo` or ‘ref_name’, ‘stage’, ‘name’, ‘all’)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabCreateError` – If the server cannot perform the request

Returns

A new instance of the `manage` object class build with
the data sent by the server

Return type

`GroupCluster`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupCluster`

Retrieve a single object.

Parameters

- `id` (`str` / `int`) – ID of the object to retrieve
- `lazy` (`bool`) – If True, don’t request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs` (`Any`) – Extra options to send to the server (e.g. `sudo`)

Returns

The generated `RESTObject`.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

GroupCluster

```
class gitlab.v4.objects.GroupCustomAttribute(manager: RESTManager, attrs: Dict[str, Any], *,  
                                              created_from_list: bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin, RESTObject*

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict\[str, Any\]](#))
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

```
class gitlab.v4.objects.GroupCustomAttributeManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin, SetMixin, DeleteMixin, RESTManager*

Object Creation**Object update****Parameters**

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupCustomAttribute
```

Retrieve a single object.

Parameters

- **id** ([str](#) / [int](#)) – ID of the object to retrieve
- **lazy** ([bool](#)) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

GroupCustomAttribute

```
class gitlab.v4.objects.GroupDeployToken(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin, RESTObject*

Parameters

- **manager** ([RESTManager](#))

- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.GroupDeployTokenManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `RetrieveMixin, CreateMixin, DeleteMixin, RESTManager`

Object listing filters

- `scopes`

Object Creation

Required attributes for object create:

- `name`
- `scopes`

Optional attributes for object create:

- `expires_at`
- `username`

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupDeployToken`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupDeployToken`

`class gitlab.v4.objects.GroupDescendantGroup(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`

- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.GroupDescendantGroupManager(gl: Gitlab, parent: RESTObject | None = None)
Bases: GroupSubgroupManager
```

This manager inherits from GroupSubgroupManager as descendant groups share all attributes with subgroups, except the path and object class.

Object listing filters

- `skip_groups`
- `all_available`
- `search`
- `order_by`
- `sort`
- `statistics`
- `owned`
- `with_custom_attributes`
- `min_access_level`

Object Creation

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

```
class gitlab.v4.objects.GroupEpic(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:
    bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin`, `SaveMixin`, `RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

`issues`: `GroupEpicIssueManager`

`notes`: `GroupEpicNoteManager`

`resourcelabelevents`: `GroupEpicResourceLabelEventManager`

```
class gitlab.v4.objects.GroupEpicAwardEmoji(manager: RESTManager, attrs: Dict[str, Any], *,
    created_from_list: bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin`, `RESTObject`

Parameters

- `manager` (`RESTManager`)

- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.GroupEpicAwardEmojiManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `NoUpdateMixin, RESTManager`

Object Creation

Required attributes for object create:

- `name`

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject | None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupEpicAwardEmoji`

Retrieve a single object.

Parameters

- `id (str | int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupEpicAwardEmoji`

`class gitlab.v4.objects.GroupEpicDiscussionNote(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.GroupEpicDiscussionNoteManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `GetMixin, CreateMixin, UpdateMixin, DeleteMixin, RESTManager`

Object Creation

Required attributes for object create:

- body

Optional attributes for object create:

- created_at

Object update

Required attributes for object update:

- body

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupEpicDiscussionNote`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupEpicDiscussionNote`

`class gitlab.v4.objects.GroupEpicIssue(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `ObjectDeleteMixin, SaveMixin, RESTObject`

Parameters

- `manager (GroupEpicIssueManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`manager: GroupEpicIssueManager`

`save(**kwargs: Any) → None`

Save the changes made to the object to the server.

The object is updated to match what the server returns.

Parameters

• ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the server cannot perform the request

Return type

None

class gitlab.v4.objects.GroupEpicIssueManager(gl: Gitlab, parent: RESTObject | None = None)

Bases: *ListMixin, CreateMixin, UpdateMixin, DeleteMixin, RESTManager*

Object Creation

Required attributes for object create:

- issue_id

Object update

Optional attributes for object update:

- move_before_id
- move_after_id

Parameters

- **gl (Gitlab)**
- **parent (RESTObject / None)**

create(data: Dict[str, Any] | None = None, **kwargs: Any) → GroupEpicIssue

Create a new object.

Parameters

- **data (Dict[str, Any] / None)** – Parameters to send to the server to create the resource
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the server cannot perform the request

Returns

A new instance of the manage object class build with
the data sent by the server

Return type

GroupEpicIssue

class gitlab.v4.objects.GroupEpicManager(gl: Gitlab, parent: RESTObject | None = None)

Bases: *CRUDMixin, RESTManager*

Object listing filters

- author_id
- labels

- `order_by`
- `sort`
- `search`

Object Creation

Required attributes for object create:

- `title`

Optional attributes for object create:

- `labels`
- `description`
- `start_date`
- `end_date`

Object update

Optional attributes for object update:

- `title`
- `labels`
- `description`
- `start_date`
- `end_date`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupEpic`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupEpic`

```
class gitlab.v4.objects.GroupEpicNote(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

awardemojis: `GroupEpicNoteAwardEmojiManager`

```
class gitlab.v4.objects.GroupEpicNoteAwardEmoji(manager: RESTManager, attrs: Dict[str, Any], *,  
                                                created_from_list: bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.GroupEpicNoteAwardEmojiManager(gl: Gitlab, parent: RESTObject | None =  
                                                       None)
```

Bases: *NoUpdateMixin, RESTManager*

Object Creation

Required attributes for object create:

- `name`

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

get(*id*: str | int, *lazy*: bool = False, ***kwargs*: Any) → `GroupEpicNoteAwardEmoji`

Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct

- **GitlabGetError** – If the server cannot perform the request

Return type

GroupEpicNoteAwardEmoji

class gitlab.v4.objects.**GroupEpicNoteManager**(*gl: Gitlab, parent: RESTObject | None = None*)

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- body

Optional attributes for object create:

- `created_at`

Object update

Required attributes for object update:

- body

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *GroupEpicNote*

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

GroupEpicNote

class gitlab.v4.objects.**GroupEpicResourceLabelEvent**(*manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False*)

Bases: *RESTObject*

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`

- **lazy** (*bool*)

```
class gitlab.v4.objects.GroupEpicResourceLabelEventManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupEpicResourceLabelEvent
```

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

GroupEpicResourceLabelEvent

```
class gitlab.v4.objects.GroupExport(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *DownloadMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.GroupExportManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *GetWithoutIdMixin, CreateMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(**kwargs: Any) → GroupExport
```

Retrieve a single object.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

GroupExport

```
class gitlab.v4.objects.GroupHook(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager (RESTManager)**
- **attrs (Dict[str, Any])**
- **created_from_list (bool)**
- **lazy (bool)**

```
class gitlab.v4.objects.GroupHookManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- url

Optional attributes for object create:

- push_events
- issues_events
- confidential_issues_events
- merge_requests_events
- tag_push_events
- note_events
- confidential_note_events
- job_events
- pipeline_events
- wiki_page_events
- deployment_events
- releases_events
- subgroup_events

- `enable_ssl_verification`
- `token`

Object update

Required attributes for object update:

- `url`

Optional attributes for object update:

- `push_events`
- `issues_events`
- `confidential_issues_events`
- `merge_requests_events`
- `tag_push_events`
- `note_events`
- `confidential_note_events`
- `job_events`
- `pipeline_events`
- `wiki_page_events`
- `deployment_events`
- `releases_events`
- `subgroup_events`
- `enable_ssl_verification`
- `token`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *GroupHook*

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

GroupHook

```
class gitlab.v4.objects.GroupImport(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject***Parameters**

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.GroupImportManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *GetWithoutIdMixin, RESTManager***Object Creation****Object update****Parameters**

- **gl** (*Gitlab*)
- **parent** (*RESTObject / None*)

get(kwargs: Any) → GroupImport**

Retrieve a single object.

Parameters****kwargs (Any)** – Extra options to send to the server (e.g. sudo)**Returns**

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

GroupImport

```
class gitlab.v4.objects.GroupInvitation(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject***Parameters**

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.GroupInvitationManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *InvitationMixin, RESTManager***Object listing filters**

- query

Object Creation

Required attributes for object create:

- access_level

Optional attributes for object create:

- expires_at
- invite_source
- tasks_to_be_done
- tasks_project_id

Mutually exclusive attributes for object create:

- email
- user_id

Object update

Optional attributes for object update:

- access_level
- expires_at

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = *False*, ***kwargs*: Any) → [GroupInvitation](#)

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[GroupInvitation](#)

class `gitlab.v4.objects.GroupIssue(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: [RESTObject](#)

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.GroupIssueManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `ListMixin, RESTManager`

Object listing filters

- `state`
- `labels`
- `milestone`
- `order_by`
- `sort`
- `iids`
- `author_id`
- `iteration_id`
- `assignee_id`
- `my_reaction_emoji`
- `search`
- `created_after`
- `created_before`
- `updated_after`
- `updated_before`

Object Creation

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

```
class gitlab.v4.objects.GroupIssuesStatistics(manager: RESTManager, attrs: Dict[str, Any], *,  
                                              created_from_list: bool = False, lazy: bool = False)
```

Bases: `RefreshMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.GroupIssuesStatisticsManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *GetWithoutIdMixin, RESTManager*

Object listing filters

- `iids`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject | None)`

```
get(**kwargs: Any) → GroupIssuesStatistics
```

Retrieve a single object.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupIssuesStatistics`

```
class gitlab.v4.objects.GroupIteration(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.GroupIterationManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin, RESTManager*

Object listing filters

- `state`
- `search`
- `include_ancestors`

Object Creation

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

`class gitlab.v4.objects.GroupLDAPGroupLink(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

`delete(**kwargs: Any) → None`

Delete the LDAP group link from the server.

Parameters

`**kwargs` (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabDeleteError` – If the server cannot perform the request

Return type

`None`

`class gitlab.v4.objects.GroupLDAPGroupLinkManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `ListMixin, CreateMixin, DeleteMixin, RESTManager`

Object Creation

Required attributes for object create:

- `provider`
- `group_access`

Mutually exclusive attributes for object create:

- `cn`
- `filter`

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

`class gitlab.v4.objects.GroupLabel(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SubscribableMixin, SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager` (`GroupLabelManager`)
- `attrs` (`Dict[str, Any]`)

- `created_from_list (bool)`
- `lazy (bool)`

`manager: GroupLabelManager`

`save(**kwargs: Any) → None`

Saves the changes made to the object to the server.

The object is updated to match what the server returns.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct.
- `GitlabUpdateError` – If the server cannot perform the request.

Return type

`None`

`class gitlab.v4.objects.GroupLabelManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `RetrieveMixin, CreateMixin, UpdateMixin, DeleteMixin, RESTManager`

Object Creation

Required attributes for object create:

- `name`
- `color`

Optional attributes for object create:

- `description`
- `priority`

Object update

Required attributes for object update:

- `name`

Optional attributes for object update:

- `new_name`
- `color`
- `description`
- `priority`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupLabel`

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

GroupLabel

update(*name*: *str* | *None*, *new_data*: *Dict*[*str*, *Any*] | *None* = *None*, ****kwargs**: *Any*) → *Dict*[*str*, *Any*]

Update a Label on the server.

Parameters

- **name** (*str* / *None*) – The name of the label
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)
- **new_data** (*Dict*[*str*, *Any*] / *None*)
- ****kwargs**

Return type

Dict[*str*, *Any*]

class `gitlab.v4.objects.GroupManager`(*gl*: *Gitlab*, *parent*: *RESTObject* | *None* = *None*)

Bases: *CRUDMixin*, *RESTManager*

Object listing filters

- skip_groups
- all_available
- search
- order_by
- sort
- statistics
- owned
- with_custom_attributes
- min_access_level
- top_level_only

Object Creation

Required attributes for object create:

- name
- path

Optional attributes for object create:

- `description`
- `membership_lock`
- `visibility`
- `share_with_group_lock`
- `require_two_factor_authentication`
- `two_factor_grace_period`
- `project_creation_level`
- `auto_devops_enabled`
- `subgroup_creation_level`
- `emails_disabled`
- `avatar`
- `mentions_disabled`
- `lfs_enabled`
- `request_access_enabled`
- `parent_id`
- `default_branch_protection`
- `shared_runners_minutes_limit`
- `extra_shared_runners_minutes_limit`

Object update

Optional attributes for object update:

- `name`
- `path`
- `description`
- `membership_lock`
- `share_with_group_lock`
- `visibility`
- `require_two_factor_authentication`
- `two_factor_grace_period`
- `project_creation_level`
- `auto_devops_enabled`
- `subgroup_creation_level`
- `emails_disabled`
- `avatar`
- `mentions_disabled`
- `lfs_enabled`
- `request_access_enabled`

- `default_branch_protection`
- `file_template_project_id`
- `shared_runners_minutes_limit`
- `extra_shared_runners_minutes_limit`
- `prevent_forking_outside_group`
- `shared_runners_setting`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → Group`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`Group`

`import_group(file: BinaryIO, path: str, name: str, parent_id: int | str | None = None, **kwargs: Any) → Dict[str, Any] | Response`

Import a group from an archive file.

Parameters

- `file (BinaryIO)` – Data or file object containing the group
- `path (str)` – The path for the new group to be imported.
- `name (str)` – The name for the new group.
- `parent_id (int / str / None)` – ID of a parent group that the group will be imported into.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabImportError` – If the server failed to perform the request

Returns

A representation of the import status.

Return type

Dict[str, Any] | Response

```
class gitlab.v4.objects.GroupMember(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.GroupMemberAll(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.GroupMemberAllManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *GroupMemberAll*

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`GroupMemberAll`

```
class gitlab.v4.objects.GroupMemberManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CRUDMixin*, *RESTManager*

Object Creation

Required attributes for object create:

- `access_level`
- `user_id`

Optional attributes for object create:

- `expires_at`
- `tasks_to_be_done`

Object update

Required attributes for object update:

- `access_level`

Optional attributes for object update:

- `expires_at`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupMember
```

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupMember`

```
class gitlab.v4.objects.GroupMergeRequest(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`

- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.GroupMergeRequestManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `ListMixin, RESTManager`

Object listing filters

- `state`
- `order_by`
- `sort`
- `milestone`
- `view`
- `labels`
- `created_after`
- `created_before`
- `updated_after`
- `updated_before`
- `scope`
- `author_id`
- `assignee_id`
- `approver_ids`
- `approved_by_ids`
- `my_reaction_emoji`
- `source_branch`
- `target_branch`
- `search`
- `wip`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject | None)`

`class gitlab.v4.objects.GroupMilestone(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`

- **lazy** (*bool*)

issues(***kwargs*: [Any](#)) → *RESTObjectList*

List issues related to this milestone.

Parameters

- **all** – If True, return all the items, without pagination
- **per_page** – Number of items to retrieve per request
- **page** – ID of the page to return (starts with page 1)
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabListError** – If the list could not be retrieved

Returns

The list of issues

Return type

[RESTObjectList](#)

merge_requests(***kwargs*: [Any](#)) → *RESTObjectList*

List the merge requests related to this milestone.

Parameters

- **all** – If True, return all the items, without pagination
- **per_page** – Number of items to retrieve per request
- **page** – ID of the page to return (starts with page 1)
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabListError** – If the list could not be retrieved

Returns

The list of merge requests

Return type

[RESTObjectList](#)

class gitlab.v4.objects.GroupMilestoneManager(*gl*: [Gitlab](#), *parent*: [RESTObject](#) | *None* = *None*)

Bases: [CRUDMixin](#), [RESTManager](#)

Object listing filters

- **iids**
- **state**
- **search**

Object Creation

Required attributes for object create:

- **title**

Optional attributes for object create:

- `description`
- `due_date`
- `start_date`

Object update

Optional attributes for object update:

- `title`
- `description`
- `due_date`
- `start_date`
- `state_event`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupMilestone`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupMilestone`

```
class gitlab.v4.objects.GroupNotificationSettings(manager: RESTManager, attrs: Dict[str, Any], *,  
                                                created_from_list: bool = False, lazy: bool =  
                                                False)
```

Bases: `NotificationSettings`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.GroupNotificationSettingsManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *NotificationSettingsManager*

Object Creation

Object update

Optional attributes for object update:

- `level`
- `notification_email`
- `new_note`
- `new_issue`
- `reopen_issue`
- `close_issue`
- `reassign_issue`
- `new_merge_request`
- `reopen_merge_request`
- `close_merge_request`
- `reassign_merge_request`
- `merge_merge_request`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(**kwargs: Any) → GroupNotificationSettings`

Retrieve a single object.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupNotificationSettings`

```
class gitlab.v4.objects.GroupPackage(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`

- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.GroupPackageManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `ListMixin, RESTManager`

Object listing filters

- `exclude_subgroups`
- `order_by`
- `sort`
- `package_type`
- `package_name`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject | None)`

`class gitlab.v4.objects.GroupProject(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.GroupProjectManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `ListMixin, RESTManager`

Object listing filters

- `archived`
- `visibility`
- `order_by`
- `sort`
- `search`
- `simple`
- `owned`
- `starred`
- `with_custom_attributes`
- `include_subgroups`
- `with_issues_enabled`

- `with_merge_requests_enabled`
- `with_shared`
- `min_access_level`
- `with_security_reports`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
class gitlab.v4.objects.GroupPushRules(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.GroupPushRulesManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `GetWithoutIdMixin, CreateMixin, UpdateMixin, DeleteMixin, RESTManager`

Object Creation

Optional attributes for object create:

- `deny_delete_tag`
- `member_check`
- `prevent_secrets`
- `commit_message_regex`
- `commit_message_negative_regex`
- `branch_name_regex`
- `author_email_regex`
- `file_name_regex`
- `max_file_size`
- `commit_committer_check`
- `reject_unsigned_commits`

Object update

Optional attributes for object update:

- `deny_delete_tag`
- `member_check`
- `prevent_secrets`

- `commit_message_regex`
- `commit_message_negative_regex`
- `branch_name_regex`
- `author_email_regex`
- `file_name_regex`
- `max_file_size`
- `commit_committer_check`
- `reject_unsigned_commits`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(**kwargs: Any) → GroupPushRules`

Retrieve a single object.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupPushRules`

`class gitlab.v4.objects.GroupRegistryRepositoryManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `ListMixin, RESTManager`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`class gitlab.v4.objects.GroupRunner(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.GroupRunnerManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin, RESTManager*

Object listing filters

- scope
- tag_list

Object Creation

Required attributes for object create:

- runner_id

Object update

Parameters

- gl ([Gitlab](#))
- parent ([RESTObject](#) / [None](#))

```
class gitlab.v4.objects.GroupSAMLGroupLink(manager: RESTManager, attrs: Dict[str, Any], *,  
                                             created_from_list: bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin, RESTObject*

Parameters

- manager ([RESTManager](#))
- attrs ([Dict\[str, Any\]](#))
- created_from_list ([bool](#))
- lazy ([bool](#))

```
class gitlab.v4.objects.GroupSAMLGroupLinkManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *NoUpdateMixin, RESTManager*

Object Creation

Required attributes for object create:

- saml_group_name
- access_level

Object update

Parameters

- gl ([Gitlab](#))
- parent ([RESTObject](#) / [None](#))

get(id: str | int, lazy: bool = False, **kwargs: Any) → *GroupSAMLGroupLink*

Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** ([bool](#)) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[GroupSAMLGroupLink](#)

```
class gitlab.v4.objects.GroupSubgroup(manager: RESTManager, attrs: Dict[str, Any], *,  
created_from_list: bool = False, lazy: bool = False)
```

Bases: [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict\[str, Any\]](#))
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

```
class gitlab.v4.objects.GroupSubgroupManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: [ListMixin](#), [RESTManager](#)

Object listing filters

- `skip_groups`
- `all_available`
- `search`
- `order_by`
- `sort`
- `statistics`
- `owned`
- `with_custom_attributes`
- `min_access_level`

Object Creation

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

```
class gitlab.v4.objects.GroupVariable(manager: RESTManager, attrs: Dict[str, Any], *,  
created_from_list: bool = False, lazy: bool = False)
```

Bases: [SaveMixin](#), [ObjectDeleteMixin](#), [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict\[str, Any\]](#))

- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.GroupVariableManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CRUDMixin*, *RESTManager*

Object Creation

Required attributes for object create:

- `key`
- `value`

Optional attributes for object create:

- `protected`
- `variable_type`
- `masked`

Object update

Required attributes for object update:

- `key`
- `value`

Optional attributes for object update:

- `protected`
- `variable_type`
- `masked`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupVariable
```

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`GroupVariable`

```
class gitlab.v4.objects.GroupWiki(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
Bases: SaveMixin, ObjectDeleteMixin, UploadMixin, RESTObject
```

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.GroupWikiManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `CRUDMixin`, `RESTManager`

Object listing filters

- `with_content`

Object Creation

Required attributes for object create:

- `title`
- `content`

Optional attributes for object create:

- `format`

Object update

Optional attributes for object update:

- `title`
- `content`
- `format`

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → GroupWiki
```

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct

- **GitlabGetError** – If the server cannot perform the request

Return type

[GroupWiki](#)

```
class gitlab.v4.objects.Hook(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: [ObjectDeleteMixin](#), [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict](#)[[str](#), [Any](#)])
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

```
class gitlab.v4.objects.HookManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: [NoUpdateMixin](#), [RESTManager](#)

Object Creation

Required attributes for object create:

- url

Object update**Parameters**

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → Hook
```

Retrieve a single object.

Parameters

- **id** ([str](#) / [int](#)) – ID of the object to retrieve
- **lazy** ([bool](#)) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[Hook](#)

```
class gitlab.v4.objects.Issue(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))

- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

class `gitlab.v4.objects.IssueManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `RetrieveMixin, RESTManager`

Object listing filters

- `state`
- `labels`
- `milestone`
- `scope`
- `author_id`
- `iteration_id`
- `assignee_id`
- `my_reaction_emoji`
- `iids`
- `order_by`
- `sort`
- `search`
- `created_after`
- `created_before`
- `updated_after`
- `updated_before`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

get(`id: str | int, lazy: bool = False, **kwargs: Any`) → `Issue`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

Issue

```
class gitlab.v4.objects.IssuesStatistics(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RefreshMixin, RESTObject*

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

```
class gitlab.v4.objects.IssuesStatisticsManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *GetWithoutIdMixin, RESTManager*

Object listing filters

- iids

Object Creation**Object update****Parameters**

- **gl** (Gitlab)
- **parent** (RESTObject / None)

```
get(**kwargs: Any) → IssuesStatistics
```

Retrieve a single object.

Parameters

****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

IssuesStatistics

```
class gitlab.v4.objects.Key(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)

- **lazy** (*bool*)

```
class gitlab.v4.objects.KeyManager(gl: Gitlab, parent: RESTObject | None = None)
    Bases: GetMixin, RESTManager
```

Object Creation

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / *None*)

```
get(id: int | str | None = None, lazy: bool = False, **kwargs: Any) → Key
```

Retrieve a single object.

Parameters

- **id** (*int* / *str* / *None*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[Key](#)

```
class gitlab.v4.objects.LDAPGroup(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:
    bool = False, lazy: bool = False)
```

Bases: [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** (*Dict*[*str*, [Any](#)])
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.LDAPGroupManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: [RESTManager](#)

Object listing filters

- search
- provider

Object Creation

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

`list(**kwargs: Any) → List[LDAPGroup] | RESTObjectList`

Retrieve a list of objects.

Parameters

- `all` – If True, return all the items, without pagination
- `per_page` – Number of items to retrieve per request
- `page` – ID of the page to return (starts with page 1)
- `iterator` – If set to True and no pagination option is defined, return a generator instead of a list
- `**kwargs` (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The list of objects, or a generator if `iterator` is True

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabListError` – If the server cannot perform the request

Return type

`List[LDAPGroup] | RESTObjectList`

`class gitlab.v4.objects.License(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

`class gitlab.v4.objects.LicenseManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `RetrieveMixin, RESTManager`

Object listing filters

- `popular`

Object Creation

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

`get(id: str | int, lazy: bool = False, **kwargs: Any) → License`

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

License

```
class gitlab.v4.objects.MergeRequest(manager: RESTManager, attrs: Dict[str, Any], *,  
created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.MergeRequestManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin, RESTManager*

Object listing filters

- state
- order_by
- sort
- milestone
- view
- labels
- with_labels_details
- with_merge_status_recheck
- created_after
- created_before
- updated_after
- updated_before
- scope
- author_id
- author_username
- assignee_id

- approver_ids
- approved_by_ids
- reviewer_id
- reviewer_username
- my_reaction_emoji
- source_branch
- target_branch
- search
- in
- wip
- not
- environment
- deployed_before
- deployed_after

Object Creation

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / `None`)

```
class gitlab.v4.objects.Namespace(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.NamespaceManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: [RetrieveMixin](#), [RESTManager](#)

Object listing filters

- search

Object Creation

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / `None`)

exists(*namespace*: str, ***kwargs*: Any) → Namespace

Get existence of a namespace by path.

Parameters

- **namespace** (str) – The path to the namespace.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

Data on namespace existence returned from the server.

Return type

Namespace

get(*id*: str | int, *lazy*: bool = False, ***kwargs*: Any) → Namespace

Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

Namespace

class gitlab.v4.objects.NotificationSettings(*manager*: RESTManager, *attrs*: Dict[str, Any], *, *created_from_list*: bool = False, *lazy*: bool = False)

Bases: *SaveMixin*, RESTObject

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

class gitlab.v4.objects.NotificationSettingsManager(*gl*: Gitlab, *parent*: RESTObject | None = None)

Bases: *GetWithoutIdMixin*, *UpdateMixin*, RESTManager

Object Creation

Object update

Optional attributes for object update:

- `level`
- `notification_email`
- `new_note`
- `new_issue`
- `reopen_issue`
- `close_issue`
- `reassign_issue`
- `new_merge_request`
- `reopen_merge_request`
- `close_merge_request`
- `reassign_merge_request`
- `merge_merge_request`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(**kwargs: Any) → NotificationSettings`

Retrieve a single object.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`NotificationSettings`

`class gitlab.v4.objects.PagesDomain(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.PagesDomainManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
class gitlab.v4.objects.PersonalAccessToken(manager: RESTManager, attrs: Dict[str, Any], *,  
                                             created_from_list: bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin, ObjectRotateMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.PersonalAccessTokenManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *DeleteMixin, RetrieveMixin, RotateMixin, RESTManager*

Object listing filters

- **user_id**

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → PersonalAccessToken
```

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

PersonalAccessToken

```
class gitlab.v4.objects.Project(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `RefreshMixin`, `SaveMixin`, `ObjectDeleteMixin`, `RepositoryMixin`, `UploadMixin`, `RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

`access_tokens`: `ProjectAccessTokenManager`

`accessrequests`: `ProjectAccessRequestManager`

`additionalstatistics`: `ProjectAdditionalStatisticsManager`

`approvalrules`: `ProjectApprovalRuleManager`

`approvals`: `ProjectApprovalManager`

`archive`(**kwargs: Any) → None

Archive a project.

Parameters

- `**kwargs` (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabCreateError` – If the server failed to perform the request

Return type

None

`artifacts`: `ProjectArtifactManager`

`audit_events`: `ProjectAuditEventManager`

`badges`: `ProjectBadgeManager`

`boards`: `ProjectBoardManager`

`branches`: `ProjectBranchManager`

`ci_lint`: `ProjectCiLintManager`

`clusters`: `ProjectClusterManager`

`commits`: `ProjectCommitManager`

`create_fork_relation`(forked_from_id: int, **kwargs: Any) → None

Create a forked from/to relation between existing projects.

Parameters

- `forked_from_id` (`int`) – The ID of the project that was forked from
- `**kwargs` (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the relation could not be created

Return type

None

customattributes: *ProjectCustomAttributeManager*

delete_fork_relation(kwargs: Any)** → None

Delete a forked relation between existing projects.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeleteError** – If the server failed to perform the request

Return type

None

deployments: *ProjectDeploymentManager*

deploytokens: *ProjectDeployTokenManager*

environments: *ProjectEnvironmentManager*

events: *ProjectEventManager*

exports: *ProjectExportManager*

files: *ProjectFileManager*

forks: *ProjectForkManager*

generic_packages: *GenericPackageManager*

groups: *ProjectGroupManager*

hooks: *ProjectHookManager*

housekeeping(kwargs: Any)** → None

Start the housekeeping task.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabHousekeepingError** – If the server failed to perform the request

Return type

None

imports: *ProjectImportManager*

integrations: *ProjectIntegrationManager*

invitations: *ProjectInvitationManager*
issues: *ProjectIssueManager*
issues_statistics: *ProjectIssuesStatisticsManager*
iterations: *ProjectIterationManager*
job_token_scope: *ProjectJobTokenScopeManager*
jobs: *ProjectJobManager*
keys: *ProjectKeyManager*
labels: *ProjectLabelManager*

languages(**kwargs: Any) → Dict[str, Any] | Response

Get languages used in the project with percentage value.

Parameters

**kwargs (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Return type

Dict[str, Any] | Response

members: *ProjectMemberManager*

members_all: *ProjectMemberAllManager*

merge_trains: *ProjectMergeTrainManager*

mergerequests: *ProjectMergeRequestManager*

milestones: *ProjectMilestoneManager*

mirror_pull(**kwargs: Any) → None

Start the pull mirroring process for the project.

Parameters

**kwargs (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the server failed to perform the request

Return type

None

mirror_pull_details(**kwargs: Any) → Dict[str, Any]

Get a project's pull mirror details.

Introduced in GitLab 15.5.

Parameters

**kwargs (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

dict of the parsed json returned by the server

Return type

Dict[str, Any]

notes: *ProjectNoteManager*

notificationsettings: *ProjectNotificationSettingsManager*

packages: *ProjectPackageManager*

pagesdomains: *ProjectPagesDomainManager*

pipelines: *ProjectPipelineManager*

pipelineschedules: *ProjectPipelineScheduleManager*

protected_environments: *ProjectProtectedEnvironmentManager*

protectedbranches: *ProjectProtectedBranchManager*

protectedtags: *ProjectProtectedTagManager*

pushrules: *ProjectPushRulesManager*

releases: *ProjectReleaseManager*

remote_mirrors: *ProjectRemoteMirrorManager*

repositories: *ProjectRegistryRepositoryManager*

resource_groups: *ProjectResourceGroupManager*

restore(kwargs: Any)** → None

Restore a project marked for deletion.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabRestoreError** – If the server failed to perform the request

Return type

None

runners: *ProjectRunnerManager*

search(scope: str, search: str, **kwargs: Any) → *GitlabList* | List[Dict[str, Any]]

Search the project resources matching the provided string.'

Parameters

- **scope (str)** – Scope of the search

- **search** (*str*) – Search string
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabSearchError** – If the server failed to perform the request

Returns

A list of dicts describing the resources found.

Return type

`GitlabList | List[Dict[str, Any]]`

secure_files: *ProjectSecureFileManager*

services: *ProjectServiceManager*

share(*group_id*: *int*, *group_access*: *int*, *expires_at*: *str* | *None* = *None*, ****kwargs**: *Any*) → *None*

Share the project with a group.

Parameters

- **group_id** (*int*) – ID of the group.
- **group_access** (*int*) – Access level for the group.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)
- **expires_at** (*str* / *None*)
- ****kwargs**

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the server failed to perform the request

Return type

`None`

snapshot(*wiki*: *bool* = *False*, *streamed*: *bool* = *False*, *action*: *Callable[[bytes], None]* | *None* = *None*, *chunk_size*: *int* = *1024*, *, *iterator*: *bool* = *False*, ****kwargs**: *Any*) → *bytes* | *Iterator[Any]* | *None*

Return a snapshot of the repository.

Parameters

- **wiki** (*bool*) – If True return the wiki repository
- **streamed** (*bool*) – If True the data will be processed by chunks of *chunk_size* and each chunk is passed to *action* for treatment.
- **iterator** (*bool*) – If True directly return the underlying response iterator
- **action** (*Callable[[bytes], None]* / *None*) – Callable responsible of dealing with chunk of data
- **chunk_size** (*int*) – Size of each chunk
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct

- **GitlabGetError** – If the content could not be retrieved

Returns

The uncompressed tar archive of the repository

Return type

bytes | *Iterator[Any]* | None

snippets: *ProjectSnippetManager*

star(kwargs: Any)** → None

Star a project.

Parameters

- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the server failed to perform the request

Return type

None

storage: *ProjectStorageManager*

tags: *ProjectTagManager*

transfer(to_namespace: int | str, **kwargs: Any) → None

Transfer a project to the given namespace ID

Parameters

- **to_namespace (int / str)** – ID or path of the namespace to transfer the project to
- **to (project)**
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabTransferProjectError** – If the project could not be transferred

Return type

None

trigger_pipeline(ref: str, token: str, variables: Dict[str, Any] | None = None, **kwargs: Any) → *ProjectPipeline*

Trigger a CI build.

See <https://gitlab.com/help/ci/triggers/README.md#trigger-a-build>

Parameters

- **ref (str)** – Commit to build; can be a branch name or a tag
- **token (str)** – The trigger token
- **variables (Dict[str, Any] / None)** – Variables passed to the build script
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the server failed to perform the request

Return type

ProjectPipeline

triggers: *ProjectTriggerManager***unarchive(**kwargs: Any) → None**

Unarchive a project.

Parameters

- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeleteError** – If the server failed to perform the request

Return type

None

unshare(group_id: int, **kwargs: Any) → None

Delete a shared project link within a group.

Parameters

- **group_id (int)** – ID of the group.
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeleteError** – If the server failed to perform the request

Return type

None

unstar(kwargs: Any) → None**

Unstar a project.

Parameters

- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeleteError** – If the server failed to perform the request

Return type

None

users: *ProjectUserManager***variables:** *ProjectVariableManager***wikis:** *ProjectWikiManager*

```
class gitlab.v4.objects.ProjectAccessRequest(manager: RESTManager, attrs: Dict[str, Any], *,  
                                              created_from_list: bool = False, lazy: bool = False)
```

Bases: `AccessRequestMixin`, `ObjectDeleteMixin`, `RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.ProjectAccessRequestManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `ListMixin`, `CreateMixin`, `DeleteMixin`, `RESTManager`

Object Creation

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

```
class gitlab.v4.objects.ProjectAccessToken(manager: RESTManager, attrs: Dict[str, Any], *,  
                                           created_from_list: bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin`, `ObjectRotateMixin`, `RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.ProjectAccessTokenManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `CreateMixin`, `DeleteMixin`, `RetrieveMixin`, `RotateMixin`, `RESTManager`

Object Creation

Required attributes for object create:

- `name`
- `scopes`

Optional attributes for object create:

- `access_level`
- `expires_at`

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectAccessToken
```

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectAccessToken`

```
class gitlab.v4.objects.ProjectAdditionalStatistics(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `RefreshMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectAdditionalStatisticsManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `GetWithoutIdMixin, RESTManager`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
get(**kwargs: Any) → ProjectAdditionalStatistics
```

Retrieve a single object.

Parameters

- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct

- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectAdditionalStatistics`

```
class gitlab.v4.objects.ProjectApproval(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectApprovalManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `GetWithoutIdMixin, UpdateMixin, RESTManager`

Object Creation

Object update

Optional attributes for object update:

- `approvals_before_merge`
- `reset_approvals_on_push`
- `disable_overriding_approvers_per_merge_request`
- `merge_requests_author_approval`
- `merge_requests_disable_committers_approval`

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

get(kwargs: Any) → ProjectApproval**

Retrieve a single object.

Parameters

****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectApproval`

```
class gitlab.v4.objects.ProjectApprovalRule(manager: RESTManager, attrs: Dict[str, Any], *,  
                                             created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin*, *ObjectDeleteMixin*, *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectApprovalRuleManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin*, *CreateMixin*, *UpdateMixin*, *DeleteMixin*, *RESTManager*

Object Creation

Required attributes for object create:

- `name`
- `approvals_required`

Optional attributes for object create:

- `user_ids`
- `group_ids`
- `protected_branch_ids`
- `usernames`

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
class gitlab.v4.objects.ProjectArtifact(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Dummy object to manage custom actions on artifacts

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectArtifactManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RESTManager*

Object Creation

Object update

Parameters

- `g1 (Gitlab)`
- `parent (RESTObject / None)`

`delete(**kwargs: Any) → None`

Delete the project's artifacts on the server.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabDeleteError` – If the server cannot perform the request

Return type

`None`

`download(ref_name: str, job: str, streamed: bool = False, action: Callable[[bytes], None] | None = None, chunk_size: int = 1024, *, iterator: bool = False, **kwargs: Any) → bytes | Iterator[Any] | None`

Get the job artifacts archive from a specific tag or branch.

Parameters

- `ref_name (str)` – Branch or tag name in repository. HEAD or SHA references are not supported.
- `job (str)` – The name of the job.
- `job_token` – Job token for multi-project pipeline triggers.
- `streamed (bool)` – If True the data will be processed by chunks of `chunk_size` and each chunk is passed to `action` for treatment
- `iterator (bool)` – If True directly return the underlying response iterator
- `action (Callable[[bytes], None] | None)` – Callable responsible of dealing with chunk of data
- `chunk_size (int)` – Size of each chunk
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the artifacts could not be retrieved

Returns

The artifacts if `streamed` is False, `None` otherwise.

Return type

`bytes | Iterator[Any] | None`

`raw(ref_name: str, artifact_path: str, job: str, streamed: bool = False, action: Callable[[bytes], None] | None = None, chunk_size: int = 1024, *, iterator: bool = False, **kwargs: Any) → bytes | Iterator[Any] | None`

Download a single artifact file from a specific tag or branch from within the job's artifacts archive.

Parameters

- `ref_name (str)` – Branch or tag name in repository. HEAD or SHA references are not supported.
- `artifact_path (str)` – Path to a file inside the artifacts archive.

- **job** (*str*) – The name of the job.
- **streamed** (*bool*) – If True the data will be processed by chunks of *chunk_size* and each chunk is passed to *action* for treatment
- **iterator** (*bool*) – If True directly return the underlying response iterator
- **action** (*Callable[[bytes], None] / None*) – Callable responsible of dealing with chunk of data
- **chunk_size** (*int*) – Size of each chunk
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the artifacts could not be retrieved

Returns

The artifact if *streamed* is False, None otherwise.

Return type

bytes | Iterator[Any] | None

```
class gitlab.v4.objects.ProjectAudit(manager: RESTManager, attrs: Dict[str, Any], *,  
created_from_list: bool = False, lazy: bool = False)
```

Bases: *ProjectAuditEvent*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectAuditEvent(manager: RESTManager, attrs: Dict[str, Any], *,  
created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectAuditEventManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin, RESTManager*

Object listing filters

- `created_after`
- `created_before`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectAuditEvent`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectAuditEvent`

`class gitlab.v4.objects.ProjectAuditManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `ProjectAuditEventManager`

Object listing filters

- `created_after`
- `created_before`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`class gitlab.v4.objects.ProjectBadge(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.ProjectBadgeManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `BadgeRenderMixin, CRUDMixin, RESTManager`

Object Creation

Required attributes for object create:

- `link_url`
- `image_url`

Object update

Optional attributes for object update:

- `link_url`
- `image_url`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectBadge`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectBadge`

`class gitlab.v4.objects.ProjectBoard(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`lists: ProjectBoardListManager`

`class gitlab.v4.objects.ProjectBoardList(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`

- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.ProjectBoardListManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `CRUDMixin, RESTManager`

Object Creation

Mutually exclusive attributes for object create:

- `label_id`
- `assignee_id`
- `milestone_id`

Object update

Required attributes for object update:

- `position`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectBoardList`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectBoardList`

`class gitlab.v4.objects.ProjectBoardManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `CRUDMixin, RESTManager`

Object Creation

Required attributes for object create:

- `name`

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = *False*, ***kwargs*: Any) → [ProjectBoard](#)

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[ProjectBoard](#)

class [gitlab.v4.objects.ProjectBranch](#)(*manager*: [RESTManager](#), *attrs*: Dict[str, Any], *, *created_from_list*: bool = *False*, *lazy*: bool = *False*)

Bases: [ObjectDeleteMixin](#), [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

class [gitlab.v4.objects.ProjectBranchManager](#)(*gl*: [Gitlab](#), *parent*: RESTObject | None = *None*)

Bases: [NoUpdateMixin](#), [RESTManager](#)

Object Creation

Required attributes for object create:

- branch
- ref

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) | [None](#))

get(*id*: str | int, *lazy*: bool = *False*, ***kwargs*: Any) → [ProjectBranch](#)

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve

- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectBranch`

```
class gitlab.v4.objects.ProjectCiLint(manager: RESTManager, attrs: Dict[str, Any], *,  
created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectCiLintManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `GetWithoutIdMixin, CreateMixin, RESTManager`

Object Creation

Required attributes for object create:

- `content`

Optional attributes for object create:

- `dry_run`
- `include_jobs`
- `ref`

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
get(**kwargs: Any) → ProjectCiLint
```

Retrieve a single object.

Parameters

- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct

- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectCiLint

validate(*args: Any, **kwargs: Any) → None

Raise an error if the Project CI Lint results are not valid.

This is a custom python-gitlab method to wrap lint endpoints.

Parameters

- **args** (Any)
- **kwargs** (Any)

Return type

None

class gitlab.v4.objects.ProjectCluster(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

class gitlab.v4.objects.ProjectClusterManager(gl: Gitlab, parent: RESTObject | None = None)

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- name
- platform_kubernetes_attributes

Optional attributes for object create:

- domain
- enabled
- managed
- environment_scope

Object update

Optional attributes for object update:

- name
- domain
- management_project_id
- platform_kubernetes_attributes
- environment_scope

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`create(data: Dict[str, Any] | None = None, **kwargs: Any) → ProjectCluster`

Create a new object.

Parameters

- `data (Dict[str, Any] / None)` – Parameters to send to the server to create the resource
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo or ‘ref_name’, ‘stage’, ‘name’, ‘all’)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabCreateError` – If the server cannot perform the request

Returns

A new instance of the `manage` object class build with
the data sent by the server

Return type

`ProjectCluster`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectCluster`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don’t request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectCluster`

`class gitlab.v4.objects.ProjectCommit(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`

- **lazy** (*bool*)

cherry_pick(*branch*: str, ***kwargs*: Any) → None

Cherry-pick a commit into a branch.

Parameters

- **branch** (*str*) – Name of target branch
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCherryPickError** – If the cherry-pick could not be performed

Return type

None

comments: *ProjectCommitCommentManager*

diff(***kwargs*: Any) → *GitlabList* | List[Dict[str, Any]]

Generate the commit diff.

Parameters

- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the diff could not be retrieved

Returns

The changes done in this commit

Return type

GitlabList | List[Dict[str, Any]]

discussions: *ProjectCommitDiscussionManager*

merge_requests(***kwargs*: Any) → *GitlabList* | List[Dict[str, Any]]

List the merge requests related to the commit.

Parameters

- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the references could not be retrieved

Returns

The merge requests related to the commit.

Return type

GitlabList | List[Dict[str, Any]]

refs(*type*: str = 'all', ***kwargs*: Any) → *GitlabList* | List[Dict[str, Any]]

List the references the commit is pushed to.

Parameters

- **type** (*str*) – The scope of references ('branch', 'tag' or 'all')

- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the references could not be retrieved

Returns

The references the commit is pushed to.

Return type

[GitlabList](#) | [List\[Dict\[str, Any\]\]](#)

revert(*branch*: str, ****kwargs**: [Any](#)) → Dict[str, [Any](#)] | Response

Revert a commit on a given branch.

Parameters

- **branch** (str) – Name of target branch
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabRevertError** – If the revert could not be performed

Returns

The new commit data (*not* a RESTObject)

Return type

[Dict\[str, Any\]](#) | [Response](#)

signature(****kwargs**: [Any](#)) → Dict[str, [Any](#)] | Response

Get the signature of the commit.

Parameters

- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the signature could not be retrieved

Returns

The commit's signature data

Return type

[Dict\[str, Any\]](#) | [Response](#)

statuses: [ProjectCommitStatusManager](#)

class [gitlab.v4.objects.ProjectCommitComment](#)(*manager*: RESTManager, *attrs*: Dict[str, [Any](#)], *, *created_from_list*: bool = False, *lazy*: bool = False)

Bases: [RESTObject](#)

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, [Any](#)])
- **created_from_list** (bool)

- `lazy (bool)`

```
class gitlab.v4.objects.ProjectCommitCommentManager(gl: Gitlab, parent: RESTObject | None = None)
    Bases: ListMixin, CreateMixin, RESTManager
```

Object Creation

Required attributes for object create:

- `note`

Optional attributes for object create:

- `path`
- `line`
- `line_type`

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
class gitlab.v4.objects.ProjectCommitDiscussion(manager: RESTManager, attrs: Dict[str, Any], *,
                                               created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`notes: ProjectCommitDiscussionNoteManager`

```
class gitlab.v4.objects.ProjectCommitDiscussionManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RetrieveMixin, CreateMixin, RESTManager`

Object Creation

Required attributes for object create:

- `body`

Optional attributes for object create:

- `created_at`

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *ProjectCommitDiscussion*

Retrieve a single object.

Parameters

- **id** (*str / int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectCommitDiscussion

```
class gitlab.v4.objects.ProjectCommitDiscussionNote(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectCommitDiscussionNoteManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *GetMixin, CreateMixin, UpdateMixin, DeleteMixin, RESTManager*

Object Creation

Required attributes for object create:

- body

Optional attributes for object create:

- **created_at**
- **position**

Object update

Required attributes for object update:

- body

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject / None*)

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *ProjectCommitDiscussionNote*

Retrieve a single object.

Parameters

- **id (str / int)** – ID of the object to retrieve
- **lazy (bool)** – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectCommitDiscussionNote

class gitlab.v4.objects.ProjectCommitManager(*gl: Gitlab, parent: RESTObject | None = None*)

Bases: *RetrieveMixin, CreateMixin, RESTManager*

Object listing filters

- all
- ref_name
- since
- until
- path
- with_stats
- first_parent
- order
- trailers

Object Creation

Required attributes for object create:

- branch
- commit_message
- actions

Optional attributes for object create:

- author_email
- author_name

Object update

Parameters

- **gl (Gitlab)**

- **parent** ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = False, ***kwargs*: Any) → [ProjectCommit](#)
Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[ProjectCommit](#)

class gitlab.v4.objects.[ProjectCommitStatus](#)(*manager*: RESTManager, *attrs*: Dict[str, Any], *, *created_from_list*: bool = False, *lazy*: bool = False)

Bases: [RefreshMixin](#), [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

class gitlab.v4.objects.[ProjectCommitStatusManager](#)(*gl*: Gitlab, *parent*: RESTObject | None = None)

Bases: [ListMixin](#), [CreateMixin](#), [RESTManager](#)

Object Creation

Required attributes for object create:

- **state**

Optional attributes for object create:

- **description**
- **name**
- **context**
- **ref**
- **target_url**
- **coverage**

Object update

Parameters

- **gl** ([Gitlab](#))

- **parent** (`RESTObject` / `None`)

`create(data: Dict[str, Any] | None = None, **kwargs: Any) → ProjectCommitStatus`

Create a new object.

Parameters

- **data** (`Dict[str, Any]` / `None`) – Parameters to send to the server to create the resource
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo or ‘ref_name’, ‘stage’, ‘name’, ‘all’)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the server cannot perform the request

Returns

A new instance of the `manage` object class build with
the data sent by the server

Return type

`ProjectCommitStatus`

`class gitlab.v4.objects.ProjectCustomAttribute(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `ObjectDeleteMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

`class gitlab.v4.objects.ProjectCustomAttributeManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `RetrieveMixin, SetMixin, DeleteMixin, RESTManager`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectCustomAttribute`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don’t request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[ProjectCustomAttribute](#)

```
class gitlab.v4.objects.ProjectDeployToken(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: [ObjectDeleteMixin](#), [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict\[str, Any\]](#))
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

```
class gitlab.v4.objects.ProjectDeployTokenManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: [RetrieveMixin](#), [CreateMixin](#), [DeleteMixin](#), [RESTManager](#)

Object listing filters

- scopes

Object Creation

Required attributes for object create:

- name
- scopes

Optional attributes for object create:

- expires_at
- username

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectDeployToken
```

Retrieve a single object.

Parameters

- **id** ([str](#) / [int](#)) – ID of the object to retrieve
- **lazy** ([bool](#)) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectDeployToken

```
class gitlab.v4.objects.ProjectDeployment(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

approval(*status: str, comment: str | None = None, represented_as: str | None = None, **kwargs: Any*) → *Dict[str, Any]*

Approve or reject a blocked deployment.

Parameters

- **status** (*str*) – Either “approved” or “rejected”
- **comment** (*str / None*) – A comment to go with the approval
- **represented_as** (*str / None*) – The name of the User/Group/Role to use for the approval, when the user belongs to multiple approval rules.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabMRAApprovalError** – If the approval failed

Returns

A dict containing the result.

Return type

Dict[str, Any]

<https://docs.gitlab.com/ee/api/deployments.html#approve-or-reject-a-blocked-deployment>

mergerequests: *ProjectDeploymentMergeRequestManager*

```
class gitlab.v4.objects.ProjectDeploymentManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin, CreateMixin, UpdateMixin, RESTManager*

Object listing filters

- **order_by**
- **sort**
- **updated_after**

- `updated_before`
- `environment`
- `status`

Object Creation

Required attributes for object create:

- `sha`
- `ref`
- `tag`
- `status`
- `environment`

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectDeployment`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectDeployment`

`class gitlab.v4.objects.ProjectDeploymentMergeRequest(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `MergeRequest`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.ProjectDeploymentMergeRequestManager(gl: Gitlab, parent: RESTObject |  
    None = None)
```

Bases: *MergeRequestManager*

Object listing filters

- state
- order_by
- sort
- milestone
- view
- labels
- with_labels_details
- with_merge_status_recheck
- created_after
- created_before
- updated_after
- updated_before
- scope
- author_id
- author_username
- assignee_id
- approver_ids
- approved_by_ids
- reviewer_id
- reviewer_username
- my_reaction_emoji
- source_branch
- target_branch
- search
- in
- wip
- not
- environment
- deployed_before
- deployed_after

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`class gitlab.v4.objects.ProjectEnvironment(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`stop(**kwargs: Any) → Dict[str, Any] | Response`

Stop the environment.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabStopError` – If the operation failed

Returns

A dict of the result.

Return type

`Dict[str, Any] | Response`

`class gitlab.v4.objects.ProjectEnvironmentManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `RetrieveMixin, CreateMixin, UpdateMixin, DeleteMixin, RESTManager`

Object listing filters

- `name`
- `search`
- `states`

Object Creation

Required attributes for object create:

- `name`

Optional attributes for object create:

- `external_url`

Object update

Optional attributes for object update:

- `name`
- `external_url`

Parameters

- `gl (Gitlab)`

- **parent** (`RESTObject` / `None`)

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectEnvironment`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated `RESTObject`.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectEnvironment`

`class gitlab.v4.objects.ProjectEvent(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `Event`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

`class gitlab.v4.objects.ProjectEventManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `EventManager`

Object listing filters

- `action`
- `target_type`
- `before`
- `after`
- `sort`
- `scope`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
class gitlab.v4.objects.ProjectExport(manager: RESTManager, attrs: Dict[str, Any], *,  
created_from_list: bool = False, lazy: bool = False)
```

Bases: [DownloadMixin](#), [RefreshMixin](#), [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict](#)[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

```
class gitlab.v4.objects.ProjectExportManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: [GetWithoutIdMixin](#), [CreateMixin](#), [RESTManager](#)

Object Creation

Optional attributes for object create:

- **description**

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

```
get(**kwargs: Any) → ProjectExport
```

Retrieve a single object.

Parameters

****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[ProjectExport](#)

```
class gitlab.v4.objects.ProjectFile(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:  
bool = False, lazy: bool = False)
```

Bases: [SaveMixin](#), [ObjectDeleteMixin](#), [RESTObject](#)

Parameters

- **manager** ([ProjectFileManager](#))
- **attrs** ([Dict](#)[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

branch: str

commit_message: str

decode() → bytes

Returns the decoded content of the file.

Returns

The decoded content.

Return type

bytes

delete(branch: str, commit_message: str, **kwargs: Any) → None

Delete the file from the server.

Parameters

- **branch (str)** – Branch from which the file will be removed
- **commit_message (str)** – Commit message for the deletion
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeleteError** – If the server cannot perform the request

Return type

None

file_path: str

manager: ProjectFileManager

save(branch: str, commit_message: str, **kwargs: Any) → None

Save the changes made to the file to the server.

The object is updated to match what the server returns.

Parameters

- **branch (str)** – Branch in which the file will be updated
- **commit_message (str)** – Message to send with the commit
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the server cannot perform the request

Return type

None

class gitlab.v4.objects.ProjectFileManager(gl: Gitlab, parent: RESTObject | None = None)

Bases: *GetMixin, CreateMixin, UpdateMixin, DeleteMixin, RESTManager*

Object Creation

Required attributes for object create:

- **file_path**
- **branch**
- **content**

- `commit_message`

Optional attributes for object create:

- `encoding`
- `author_email`
- `author_name`

Object update

Required attributes for object update:

- `file_path`
- `branch`
- `content`
- `commit_message`

Optional attributes for object update:

- `encoding`
- `author_email`
- `author_name`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

blame(`file_path: str, ref: str, **kwargs: Any`) → `List[Dict[str, Any]]`

Return the content of a file for a commit.

Parameters

- `file_path (str)` – Path of the file to retrieve
- `ref (str)` – Name of the branch, tag or commit
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabListError` – If the server failed to perform the request

Returns

A list of commits/lines matching the file

Return type

`List[Dict[str, Any]]`

create(`data: Dict[str, Any] | None = None, **kwargs: Any`) → `ProjectFile`

Create a new object.

Parameters

- `data (Dict[str, Any] / None)` – parameters to send to the server to create the resource
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

a new instance of the managed object class built with
the data sent by the server

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the server cannot perform the request

Return type

[ProjectFile](#)

delete(*file_path*: str, *branch*: str, *commit_message*: str, ***kwargs*: Any) → None

Delete a file on the server.

Parameters

- **file_path** (str) – Path of the file to remove
- **branch** (str) – Branch from which the file will be removed
- **commit_message** (str) – Commit message for the deletion
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeleteError** – If the server cannot perform the request

Return type

None

get(*file_path*: str, *ref*: str, ***kwargs*: Any) → [ProjectFile](#)

Retrieve a single file.

Parameters

- **file_path** (str) – Path of the file to retrieve
- **ref** (str) – Name of the branch, tag or commit
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the file could not be retrieved

Returns

The generated RESTObject

Return type

[ProjectFile](#)

raw(*file_path*: str, *ref*: str, *streamed*: bool = False, *action*: Callable[[], Any] | None = None, *chunk_size*: int = 1024, *, *iterator*: bool = False, ***kwargs*: Any) → bytes | Iterator[Any] | None

Return the content of a file for a commit.

Parameters

- **ref** (str) – ID of the commit
- **file_path** (str) – Path of the file to return

- **streamed** (*bool*) – If True the data will be processed by chunks of *chunk_size* and each chunk is passed to *action* for treatment
- **iterator** (*bool*) – If True directly return the underlying response iterator
- **action** (*Callable[[...], Any]* / *None*) – Callable responsible of dealing with chunk of data
- **chunk_size** (*int*) – Size of each chunk
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the file could not be retrieved

Returns

The file content

Return type

bytes | *Iterator[Any]* | *None*

update(*file_path*: *str*, *new_data*: *Dict[str, Any]* | *None* = *None*, ****kwargs**: *Any*) → *Dict[str, Any]*

Update an object on the server.

Parameters

- **id** – ID of the object to update (can be *None* if not required)
- **new_data** (*Dict[str, Any]* | *None*) – the update data for the object
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)
- **file_path** (*str*)

Returns

The new object data (*not* a RESTObject)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the server cannot perform the request

Return type

Dict[str, Any]

class *gitlab.v4.objects.ProjectFork*(*manager*: *RESTManager*, *attrs*: *Dict[str, Any]*, *, *created_from_list*: *bool* = *False*, *lazy*: *bool* = *False*)

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

class *gitlab.v4.objects.ProjectForkManager*(*gl*: *Gitlab*, *parent*: *RESTObject* | *None* = *None*)

Bases: *CreateMixin*, *ListMixin*, *RESTManager*

Object listing filters

- archived
- visibility
- order_by
- sort
- search
- simple
- owned
- membership
- starred
- statistics
- with_custom_attributes
- with_issues_enabled
- with_merge_requests_enabled

Object Creation

Optional attributes for object create:

- namespace

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

`create(data: Dict[str, Any] | None = None, **kwargs: Any) → ProjectFork`

Creates a new object.

Parameters

- `data` (`Dict[str, Any] / None`) – Parameters to send to the server to create the resource
- `**kwargs` (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabCreateError` – If the server cannot perform the request

Returns

A new instance of the managed object class build with
the data sent by the server

Return type

`ProjectFork`

`class gitlab.v4.objects.ProjectHook(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.ProjectHookManager(gl: Gitlab, parent: RESTObject | None = None)
Bases: CRUDMixin, RESTManager
```

Object Creation

Required attributes for object create:

- `url`

Optional attributes for object create:

- `push_events`
- `issues_events`
- `confidential_issues_events`
- `merge_requests_events`
- `tag_push_events`
- `note_events`
- `job_events`
- `pipeline_events`
- `wiki_page_events`
- `enable_ssl_verification`
- `token`

Object update

Required attributes for object update:

- `url`

Optional attributes for object update:

- `push_events`
- `issues_events`
- `confidential_issues_events`
- `merge_requests_events`
- `tag_push_events`
- `note_events`
- `job_events`
- `pipeline_events`
- `wiki_events`
- `enable_ssl_verification`
- `token`

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = *False*, ***kwargs*: Any) → [ProjectHook](#)

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[ProjectHook](#)

class [gitlab.v4.objects.ProjectImport](#)(*manager*: [RESTManager](#), *attrs*: Dict[str, Any], *, *created_from_list*: bool = *False*, *lazy*: bool = *False*)

Bases: [RefreshMixin](#), [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

class [gitlab.v4.objects.ProjectImportManager](#)(*gl*: [Gitlab](#), *parent*: RESTObject | None = *None*)

Bases: [GetWithoutIdMixin](#), [RESTManager](#)

Object Creation**Object update****Parameters**

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

get(***kwargs*: Any) → [ProjectImport](#)

Retrieve a single object.

Parameters

- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectImport`

```
class gitlab.v4.objects.ProjectIntegration(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectIntegrationManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `GetMixin, UpdateMixin, DeleteMixin, ListMixin, RESTManager`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject / None`)

available() → `List[str]`

List the services known by python-gitlab.

Returns

The list of service code names.

Return type

`List[str]`

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectIntegration
```

Retrieve a single object.

Parameters

- **id** (`str / int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectIntegration

```
class gitlab.v4.objects.ProjectInvitation(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectInvitationManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *InvitationMixin, RESTManager*

Object listing filters

- *query*

Object Creation

Required attributes for object create:

- *access_level*

Optional attributes for object create:

- *expires_at*
- *invite_source*
- *tasks_to_be_done*
- *tasks_project_id*

Mutually exclusive attributes for object create:

- *email*
- *user_id*

Object update

Optional attributes for object update:

- *access_level*
- *expires_at*

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectInvitation
```

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve

- **lazy (bool)** – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectInvitation`

```
class gitlab.v4.objects.ProjectIssue(manager: RESTManager, attrs: Dict[str, Any], *,  
                                     created_from_list: bool = False, lazy: bool = False)  
  
Bases:     UserAgentDetailMixin, SubscribableMixin, TodoMixin, TimeTrackingMixin,  
ParticipantsMixin, SaveMixin, ObjectDeleteMixin, RESTObject
```

Parameters

- **manager (RESTManager)**
- **attrs (Dict[str, Any])**
- **created_from_list (bool)**
- **lazy (bool)**

awardemojis: `ProjectIssueAwardEmojiManager`

closed_by(kwargs: Any) → Dict[str, Any]**

List merge requests that will close the issue when merged.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the merge requests could not be retrieved

Returns

The list of merge requests.

Return type

`Dict[str, Any]`

discussions: `ProjectIssueDiscussionManager`

links: `ProjectIssueLinkManager`

move(to_project_id: int, **kwargs: Any) → None

Move the issue to another project.

Parameters

- **to_project_id (int)** – ID of the target project
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the issue could not be moved

Return type

None

notes: *ProjectIssueNoteManager***related_merge_requests(**kwargs: Any) → Dict[str, Any]**

List merge requests related to the issue.

Parameters

- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the merge requests could not be retrieved

Returns

The list of merge requests.

Return type*Dict[str, Any]***reorder(move_after_id: int | None = None, move_before_id: int | None = None, **kwargs: Any) → None**

Reorder an issue on a board.

Parameters

- **move_after_id (int / None)** – ID of an issue that should be placed after this issue
- **move_before_id (int / None)** – ID of an issue that should be placed before this issue
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the issue could not be reordered

Return type

None

resource_iteration_events: ProjectIssueResourceIterationEventManager**resource_weight_events: ProjectIssueResourceWeightEventManager****resourcelabelevents: ProjectIssueResourceLabelEventManager****resourcemilestoneevents: ProjectIssueResourceMilestoneEventManager****resourcestateevents: ProjectIssueResourceStateEventManager****class gitlab.v4.objects.ProjectIssueAwardEmoji(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)**Bases: *ObjectDeleteMixin, RESTObject***Parameters**

- **manager (RESTManager)**

- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectIssueAwardEmojiManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `NoUpdateMixin, RESTManager`

Object Creation

Required attributes for object create:

- `name`

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectIssueAwardEmoji
```

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectIssueAwardEmoji`

```
class gitlab.v4.objects.ProjectIssueDiscussion(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

notes: `ProjectIssueDiscussionNoteManager`

```
class gitlab.v4.objects.ProjectIssueDiscussionManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin*, *CreateMixin*, *RESTManager*

Object Creation

Required attributes for object create:

- body

Optional attributes for object create:

- created_at

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectIssueDiscussion
```

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated *RESTObject*.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectIssueDiscussion

```
class gitlab.v4.objects.ProjectIssueDiscussionNote(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin*, *ObjectDeleteMixin*, *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict*[*str*, *Any*])
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectIssueDiscussionNoteManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *GetMixin*, *CreateMixin*, *UpdateMixin*, *DeleteMixin*, *RESTManager*

Object Creation

Required attributes for object create:

- body

Optional attributes for object create:

- created_at

Object update

Required attributes for object update:

- body

Parameters

- gl ([Gitlab](#))
- parent ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = *False*, ***kwargs*: Any) → [ProjectIssueDiscussionNote](#)

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[ProjectIssueDiscussionNote](#)

class gitlab.v4.objects.**ProjectIssueLink**(*manager*: RESTManager, *attrs*: Dict[str, Any], *, *created_from_list*: bool = *False*, *lazy*: bool = *False*)

Bases: [ObjectDeleteMixin](#), [RESTObject](#)

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

class gitlab.v4.objects.**ProjectIssueLinkManager**(*gl*: Gitlab, *parent*: RESTObject | None = *None*)

Bases: [ListMixin](#), [CreateMixin](#), [DeleteMixin](#), RESTManager

Object Creation

Required attributes for object create:

- target_project_id

- `target_issue_iid`

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`create(data: Dict[str, Any], **kwargs: Any) → Tuple[RESTObject, RESTObject]`

Create a new object.

Parameters

- `data (Dict[str, Any])` – parameters to send to the server to create the resource
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The source and target issues

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabCreateError` – If the server cannot perform the request

Return type

`Tuple[RESTObject, RESTObject]`

`class gitlab.v4.objects.ProjectIssueManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `CRUDMixin, RESTManager`

Object listing filters

- `iids`
- `state`
- `labels`
- `milestone`
- `scope`
- `author_id`
- `iteration_id`
- `assignee_id`
- `my_reaction_emoji`
- `order_by`
- `sort`
- `search`
- `created_after`
- `created_before`
- `updated_after`
- `updated_before`

Object Creation

Required attributes for object create:

- `title`

Optional attributes for object create:

- `description`
- `confidential`
- `assignee_ids`
- `assignee_id`
- `milestone_id`
- `labels`
- `created_at`
- `due_date`
- `merge_request_to_resolve_discussions_of`
- `discussion_to_resolve`

Object update

Optional attributes for object update:

- `title`
- `description`
- `confidential`
- `assignee_ids`
- `assignee_id`
- `milestone_id`
- `labels`
- `state_event`
- `updated_at`
- `due_date`
- `discussion_locked`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectIssue`

Retrieve a single object.

Parameters

- `id (str | int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.

- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[ProjectIssue](#)

```
class gitlab.v4.objects.ProjectIssueNote(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: [SaveMixin](#), [ObjectDeleteMixin](#), [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict](#)[[str](#), [Any](#)])
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

awardemojis: [ProjectIssueNoteAwardEmojiManager](#)

```
class gitlab.v4.objects.ProjectIssueNoteAwardEmoji(manager: RESTManager, attrs: Dict[str, Any], *,  
                                                 created_from_list: bool = False, lazy: bool =  
                                                 False)
```

Bases: [ObjectDeleteMixin](#), [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict](#)[[str](#), [Any](#)])
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

```
class gitlab.v4.objects.ProjectIssueNoteAwardEmojiManager(gl: Gitlab, parent: RESTObject | None =  
                                                       None)
```

Bases: [NoUpdateMixin](#), [RESTManager](#)

Object Creation

Required attributes for object create:

- name

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = False, **kwargs: Any) → ProjectIssueNoteAwardEmoji

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectIssueNoteAwardEmoji

class gitlab.v4.objects.ProjectIssueNoteManager(*gl*: Gitlab, *parent*: RESTObject | None = None)

Bases: *CRUDMixin*, *RESTManager*

Object Creation

Required attributes for object create:

- body

Optional attributes for object create:

- created_at

Object update

Required attributes for object update:

- body

Parameters

- **gl** (Gitlab)
- **parent** (RESTObject | None)

get(*id*: str | int, *lazy*: bool = False, **kwargs: Any) → ProjectIssueNote

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct

- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectIssueNote

```
class gitlab.v4.objects.ProjectIssueResourceIterationEvent(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectIssueResourceIterationEventManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin, RESTManager*

Object Creation**Object update****Parameters**

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *ProjectIssueResourceIterationEvent*

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated *RESTObject*.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectIssueResourceIterationEvent

```
class gitlab.v4.objects.ProjectIssueResourceLabelEvent(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)

- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.ProjectIssueResourceLabelEventManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RetrieveMixin, RESTManager`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectIssueResourceLabelEvent
```

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectIssueResourceLabelEvent`

```
class gitlab.v4.objects.ProjectIssueResourceMilestoneEvent(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.ProjectIssueResourceMilestoneEventManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RetrieveMixin, RESTManager`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

get(*id*: `str` | `int`, *lazy*: `bool` = `False`, `**kwargs`: `Any`) → `ProjectIssueResourceMilestoneEvent`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectIssueResourceMilestoneEvent`

```
class gitlab.v4.objects.ProjectIssueResourceStateEvent(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectIssueResourceStateEventManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RetrieveMixin`, `RESTManager`

Object Creation**Object update****Parameters**

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

get(*id*: `str` | `int`, *lazy*: `bool` = `False`, `**kwargs`: `Any`) → `ProjectIssueResourceStateEvent`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve

- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectIssueResourceStateEvent

```
class gitlab.v4.objects.ProjectIssueResourceWeightEvent(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectIssueResourceWeightEventManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectIssueResourceWeightEvent
```

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectIssueResourceWeightEvent

```
class gitlab.v4.objects.ProjectIssuesStatistics(manager: RESTManager, attrs: Dict[str, Any], *,  
                                               created_from_list: bool = False, lazy: bool = False)
```

Bases: RefreshMixin, RESTObject

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

```
class gitlab.v4.objects.ProjectIssuesStatisticsManager(gl: Gitlab, parent: RESTObject | None =  
None)
```

Bases: GetWithoutIdMixin, RESTManager

Object listing filters

- iids

Object Creation**Object update****Parameters**

- **gl** (Gitlab)
- **parent** (RESTObject / None)

get(kwargs: Any) → ProjectIssuesStatistics**

Retrieve a single object.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectIssuesStatistics

```
class gitlab.v4.objects.ProjectIterationManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: ListMixin, RESTManager

Object listing filters

- state
- search
- include_ancestors

Object Creation**Object update**

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / `None`)

class `gitlab.v4.objects.ProjectJob(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: [RefreshMixin](#), [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

artifact(*path*: str, *streamed*: bool = `False`, *action*: `Callable[[...], Any]` | `None` = `None`, *chunk_size*: int = 1024, *, *iterator*: bool = `False`, ***kwargs*: Any) → bytes | [Iterator\[Any\]](#) | `None`

Get a single artifact file from within the job's artifacts archive.

Parameters

- **path** (str) – Path of the artifact
- **streamed** (bool) – If True the data will be processed by chunks of *chunk_size* and each chunk is passed to *action* for treatment
- **iterator** (bool) – If True directly return the underlying response iterator
- **action** (`Callable[[...], Any]` / `None`) – Callable responsible of dealing with chunk of data
- **chunk_size** (int) – Size of each chunk
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the artifacts could not be retrieved

Returns

The artifacts if *streamed* is False, `None` otherwise.

Return type

bytes | [Iterator\[Any\]](#) | `None`

artifacts(*streamed*: bool = `False`, *action*: `Callable[[...], Any]` | `None` = `None`, *chunk_size*: int = 1024, *, *iterator*: bool = `False`, ***kwargs*: Any) → bytes | [Iterator\[Any\]](#) | `None`

Get the job artifacts.

Parameters

- **streamed** (bool) – If True the data will be processed by chunks of *chunk_size* and each chunk is passed to *action* for treatment
- **iterator** (bool) – If True directly return the underlying response iterator
- **action** (`Callable[[...], Any]` / `None`) – Callable responsible of dealing with chunk of data

- **chunk_size** (*int*) – Size of each chunk
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the artifacts could not be retrieved

Returns

The artifacts if *streamed* is False, None otherwise.

Return type

bytes | *Iterator*[*Any*] | None

cancel(kwargs: Any) → Dict[str, Any]**

Cancel the job.

Parameters

- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabJobCancelError** – If the job could not be canceled

Return type

Dict[str, *Any*]

delete_artifacts(kwargs: Any) → None**

Delete artifacts of a job.

Parameters

- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeleteError** – If the request could not be performed

Return type

None

erase(kwargs: Any) → None**

Erase the job (remove job artifacts and trace).

Parameters

- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabJobEraseError** – If the job could not be erased

Return type

None

keep_artifacts(kwargs: Any) → None**

Prevent artifacts from being deleted when expiration is set.

Parameters

- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the request could not be performed

Return type

None

play(kwargs: Any)** → None

Trigger a job explicitly.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabJobPlayError** – If the job could not be triggered

Return type

None

retry(kwargs: Any)** → Dict[str, Any]

Retry the job.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabJobRetryError** – If the job could not be retried

Return type

Dict[str, Any]

trace(streamed: bool = False, action: Callable[[], Any] | None = None, chunk_size: int = 1024, *, iterator: bool = False, **kwargs: Any) → Dict[str, Any]

Get the job trace.

Parameters

- **streamed (bool)** – If True the data will be processed by chunks of *chunk_size* and each chunk is passed to *action* for treatment
- **iterator (bool)** – If True directly return the underlying response iterator
- **action (Callable[[], Any] / None)** – Callable responsible of dealing with chunk of data
- **chunk_size (int)** – Size of each chunk
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the artifacts could not be retrieved

Returns

The trace

Return type*Dict[str, Any]***class gitlab.v4.objects.ProjectJobManager**(*gl: Gitlab, parent: RESTObject | None = None*)Bases: *RetrieveMixin, RESTManager***Object listing filters**

- scope

Object Creation**Object update****Parameters**

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *ProjectJob*

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type*ProjectJob***class gitlab.v4.objects.ProjectJobTokenScope**(*manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False*)Bases: *RefreshMixin, SaveMixin, RESTObject***Parameters**

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

class gitlab.v4.objects.ProjectJobTokenScopeManager(*gl: Gitlab, parent: RESTObject | None = None*)Bases: *GetWithoutIdMixin, UpdateMixin, RESTManager***Object Creation****Object update****Parameters**

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(**kwargs: Any) → ProjectJobTokenScope`

Retrieve a single object.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectJobTokenScope`

`class gitlab.v4.objects.ProjectKey(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.ProjectKeyManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `CRUDMixin, RESTManager`

Object Creation

Required attributes for object create:

- `title`
- `key`

Optional attributes for object create:

- `can_push`

Object update

Optional attributes for object update:

- `title`
- `can_push`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

enable(*key_id*: int, ***kwargs*: Any) → Dict[str, Any] | Response

Enable a deploy key for a project.

Parameters

- **key_id** (int) – The ID of the key to enable
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabProjectDeployKeyError** – If the key could not be enabled

Returns

A dict of the result.

Return type

Dict[str, Any] | Response

get(*id*: str | int, *lazy*: bool = False, ***kwargs*: Any) → ProjectKey

Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectKey

class gitlab.v4.objects.ProjectLabel(*manager*: RESTManager, *attrs*: Dict[str, Any], *, *created_from_list*: bool = False, *lazy*: bool = False)

Bases: PromoteMixin, SubscribableMixin, SaveMixin, ObjectDeleteMixin, RESTObject

Parameters

- **manager** (ProjectLabelManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

manager: ProjectLabelManager

save(***kwargs*: Any) → None

Saves the changes made to the object to the server.

The object is updated to match what the server returns.

Parameters

• ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct.
- **GitlabUpdateError** – If the server cannot perform the request.

Return type

None

`class gitlab.v4.objects.ProjectLabelManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `RetrieveMixin, CreateMixin, UpdateMixin, DeleteMixin, RESTManager`

Object Creation

Required attributes for object create:

- name
- color

Optional attributes for object create:

- description
- priority

Object update

Required attributes for object update:

- name

Optional attributes for object update:

- new_name
- color
- description
- priority

Parameters

- **gl (Gitlab)**
- **parent (RESTObject / None)**

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectLabel`

Retrieve a single object.

Parameters

- **id (str / int)** – ID of the object to retrieve
- **lazy (bool)** – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectLabel`

`update(name: str | None, new_data: Dict[str, Any] | None = None, **kwargs: Any) → Dict[str, Any]`

Update a Label on the server.

Parameters

- **name** (`str` / `None`) – The name of the label
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)
- **new_data** (`Dict[str, Any]` / `None`)
- ****kwargs**

Return type

`Dict[str, Any]`

`class gitlab.v4.objects.ProjectManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `CRUDMixin, RESTManager`

Object listing filters

- `archived`
- `id_after`
- `id_before`
- `last_activity_after`
- `last_activity_before`
- `membership`
- `min_access_level`
- `order_by`
- `owned`
- `repository_checksum_failed`
- `repository_storage`
- `search_namespaces`
- `search`
- `simple`
- `sort`
- `starred`
- `statistics`
- `topic`
- `visibility`
- `wiki_checksum_failed`
- `with_custom_attributes`

- `with_issues_enabled`
- `with_merge_requests_enabled`
- `with_programming_language`

Object Creation

Optional attributes for object create:

- `name`
- `path`
- `allow_merge_on_skipped_pipeline`
- `only_allow_merge_if_all_status_checks_passed`
- `analytics_access_level`
- `approvals_before_merge`
- `auto_cancel_pending_pipelines`
- `auto_devops_deploy_strategy`
- `auto_devops_enabled`
- `autoclose_referenced_issues`
- `avatar`
- `build_coverage_regex`
- `build_git_strategy`
- `build_timeout`
- `builds_access_level`
- `ci_config_path`
- `container_expiration_policy_attributes`
- `container_registry_access_level`
- `container_registry_enabled`
- `default_branch`
- `description`
- `emails_disabled`
- `external_authorization_classification_label`
- `forking_access_level`
- `group_with_project_templates_id`
- `import_url`
- `initialize_with_readme`
- `issues_access_level`
- `issues_enabled`
- `jobs_enabled`
- `lfs_enabled`

- merge_method
- merge_pipelines_enabled
- merge_requests_access_level
- merge_requests_enabled
- mirror_trigger_builds
- mirror
- namespace_id
- operations_access_level
- only_allow_merge_if_all_discussions_are_resolved
- only_allow_merge_if_pipeline_succeeds
- packages_enabled
- pages_access_level
- requirements_access_level
- printing_merge_request_link_enabled
- public_builds
- releases_access_level
- environments_access_level
- feature_flags_access_level
- infrastructure_access_level
- monitor_access_level
- remove_source_branch_after_merge
- repository_access_level
- repository_storage
- request_access_enabled
- resolve_outdated_diff_discussions
- security_and_compliance_access_level
- shared_runners_enabled
- show_default_award_emojis
- snippets_access_level
- snippets_enabled
- squash_option
- tag_list
- topics
- template_name
- template_project_id
- use_custom_template

- `visibility`
- `wiki_access_level`
- `wiki_enabled`

Object update

Optional attributes for object update:

- `allow_merge_on_skipped_pipeline`
- `only_allow_merge_if_all_status_checks_passed`
- `analytics_access_level`
- `approvals_before_merge`
- `auto_cancel_pending_pipelines`
- `auto_devops_deploy_strategy`
- `auto_devops_enabled`
- `autoclose_referenced_issues`
- `avatar`
- `build_coverage_regex`
- `build_git_strategy`
- `build_timeout`
- `builds_access_level`
- `ci_config_path`
- `ci_default_git_depth`
- `ci_forward_deployment_enabled`
- `ci_allow_fork_pipelines_to_run_in_parent_project`
- `ci_separated_caches`
- `container_expiration_policy_attributes`
- `container_registry_access_level`
- `container_registry_enabled`
- `default_branch`
- `description`
- `emails_disabled`
- `enforce_auth_checks_on_uploads`
- `external_authorization_classification_label`
- `forking_access_level`
- `import_url`
- `issues_access_level`
- `issues_enabled`
- `issues_template`

- jobs_enabled
- keep_latest_artifact
- lfs_enabled
- merge_commit_template
- merge_method
- merge_pipelines_enabled
- merge_requests_access_level
- merge_requests_enabled
- merge_requests_template
- merge_trains_enabled
- mirror_overwrites_diverged_branches
- mirror_trigger_builds
- mirror_user_id
- mirror
- mr_default_target_self
- name
- operations_access_level
- only_allow_merge_if_all_discussions_are_resolved
- only_allow_merge_if_pipeline_succeeds
- only_mirror_protected_branches
- packages_enabled
- pages_access_level
- requirements_access_level
- restrict_user_defined_variables
- path
- public_builds
- releases_access_level
- environments_access_level
- feature_flags_access_level
- infrastructure_access_level
- monitor_access_level
- remove_source_branch_after_merge
- repository_access_level
- repository_storage
- request_access_enabled
- resolve_outdated_diff_discussions

- `security_and_compliance_access_level`
- `service_desk_enabled`
- `shared_runners_enabled`
- `show_default_award_emojis`
- `snippets_access_level`
- `snippets_enabled`
- `issue_branch_template`
- `squash_commit_template`
- `squash_option`
- `suggestion_commit_message`
- `tag_list`
- `topics`
- `visibility`
- `wiki_access_level`
- `wiki_enabled`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → Project`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`Project`

`import_bitbucket_server(bitbucket_server_url: str, bitbucket_server_username: str, personal_access_token: str, bitbucket_server_project: str, bitbucket_server_repo: str, new_name: str | None = None, target_namespace: str | None = None, **kwargs: Any) → Dict[str, Any] | Response`

Import a project from BitBucket Server to Gitlab (schedule the import)

This method will return when an import operation has been safely queued, or an error has occurred. After triggering an import, check the `import_status` of the newly created project to detect when the import operation has completed.

Note: This request may take longer than most other API requests. So this method will specify a 60 second default timeout if none is specified. A timeout can be specified via kwargs to override this functionality.

Parameters

- `bitbucket_server_url` (`str`) – Bitbucket Server URL
- `bitbucket_server_username` (`str`) – Bitbucket Server Username
- `personal_access_token` (`str`) – Bitbucket Server personal access token/password
- `bitbucket_server_project` (`str`) – Bitbucket Project Key
- `bitbucket_server_repo` (`str`) – Bitbucket Repository Name
- `new_name` (`str` / `None`) – New repository name (Optional)
- `target_namespace` (`str` / `None`) – Namespace to import repository into. Supports subgroups like /namespace/subgroup (Optional)
- `**kwargs` (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabListError` – If the server failed to perform the request

Returns

A representation of the import status.

Return type

`Dict[str, Any] | Response`

Example:

```
gl = gitlab.Gitlab_from_config()
print("Triggering import")
result = gl.projects.import_bitbucket_server(
    bitbucket_server_url="https://some.server.url",
    bitbucket_server_username="some_bitbucket_user",
    personal_access_token="my_password_or_access_token",
    bitbucket_server_project="my_project",
    bitbucket_server_repo="my_repo",
    new_name="gl_project_name",
    target_namespace="gl_project_path"
)
project = gl.projects.get(ret['id'])
print("Waiting for import to complete")
while project.import_status == u'started':
    time.sleep(1.0)
```

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```
project = gl.projects.get(project.id)
print("BitBucket import complete")
```

```
import_github(personal_access_token: str, repo_id: int, target_namespace: str, new_name: str | None = None, github_hostname: str | None = None, optional_stages: Dict[str, bool] | None = None, **kwargs: Any) → Dict[str, Any] | Response
```

Import a project from Github to Gitlab (schedule the import)

This method will return when an import operation has been safely queued, or an error has occurred. After triggering an import, check the `import_status` of the newly created project to detect when the import operation has completed.

Note: This request may take longer than most other API requests. So this method will specify a 60 second default timeout if none is specified. A timeout can be specified via kwargs to override this functionality.

Parameters

- `personal_access_token (str)` – GitHub personal access token
- `repo_id (int)` – Github repository ID
- `target_namespace (str)` – Namespace to import repo into
- `new_name (str / None)` – New repo name (Optional)
- `github_hostname (str / None)` – Custom GitHub Enterprise hostname. Do not set for GitHub.com. (Optional)
- `optional_stages (Dict[str, bool] / None)` – Additional items to import. (Optional)
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabListError` – If the server failed to perform the request

Returns

A representation of the import status.

Return type

`Dict[str, Any] | Response`

Example:

```
gl = gitlab.Gitlab_from_config()
print("Triggering import")
result = gl.projects.import_github(ACCESS_TOKEN,
                                   123456,
                                   "my-group/my-subgroup")
project = gl.projects.get(result['id'])
print("Waiting for import to complete")
while project.import_status == u'started':
    time.sleep(1.0)
```

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```
project = gl.projects.get(project.id)
print("Github import complete")
```

import_project(file: str, path: str, name: str | None = None, namespace: str | None = None, overwrite: bool = False, override_params: Dict[str, Any] | None = None, **kwargs: Any) → Dict[str, Any] | Response

Import a project from an archive file.

Parameters

- **file** (str) – Data or file object containing the project
- **path** (str) – Name and path for the new project
- **name** (str / None) – The name of the project to import. If not provided, defaults to the path of the project.
- **namespace** (str / None) – The ID or path of the namespace that the project will be imported to
- **overwrite** (bool) – If True overwrite an existing project with the same path
- **override_params** (Dict[str, Any] / None) – Set the specific settings for the project
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabImportError** – If the server failed to perform the request

Returns

A representation of the import status.

Return type

Dict[str, Any] | Response

remote_import(url: str, path: str, name: str | None = None, namespace: str | None = None, overwrite: bool = False, override_params: Dict[str, Any] | None = None, **kwargs: Any) → Dict[str, Any] | Response

Import a project from an archive file stored on a remote URL.

Parameters

- **url** (str) – URL for the file containing the project data to import
- **path** (str) – Name and path for the new project
- **name** (str / None) – The name of the project to import. If not provided, defaults to the path of the project.
- **namespace** (str / None) – The ID or path of the namespace that the project will be imported to
- **overwrite** (bool) – If True overwrite an existing project with the same path
- **override_params** (Dict[str, Any] / None) – Set the specific settings for the project
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabImportError** – If the server failed to perform the request

Returns

A representation of the import status.

Return type

Dict[str, Any] | Response

```
remote_import_s3(path: str, region: str, bucket_name: str, file_key: str, access_key_id: str,
                  secret_access_key: str, name: str | None = None, namespace: str | None = None,
                  overwrite: bool = False, override_params: Dict[str, Any] | None = None, **kwargs:
                  Any) → Dict[str, Any] | Response
```

Import a project from an archive file stored on AWS S3.

Parameters

- **region (str)** – AWS S3 region name where the file is stored
- **bucket_name (str)** – AWS S3 bucket name where the file is stored
- **file_key (str)** – AWS S3 file key to identify the file.
- **access_key_id (str)** – AWS S3 access key ID.
- **secret_access_key (str)** – AWS S3 secret access key.
- **path (str)** – Name and path for the new project
- **name (str / None)** – The name of the project to import. If not provided, defaults to the path of the project.
- **namespace (str / None)** – The ID or path of the namespace that the project will be imported to
- **overwrite (bool)** – If True overwrite an existing project with the same path
- **override_params (Dict[str, Any] / None)** – Set the specific settings for the project
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabImportError** – If the server failed to perform the request

Returns

A representation of the import status.

Return type

Dict[str, Any] | Response

```
class gitlab.v4.objects.ProjectMember(manager: RESTManager, attrs: Dict[str, Any], *,
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager (RESTManager)**
- **attrs (Dict[str, Any])**
- **created_from_list (bool)**

- `lazy (bool)`

```
class gitlab.v4.objects.ProjectMemberAll(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.ProjectMemberAllManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RetrieveMixin, RESTManager`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectMemberAll
```

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectMemberAll`

```
class gitlab.v4.objects.ProjectMemberManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `CRUDMixin, RESTManager`

Object Creation

Required attributes for object create:

- `access_level`
- `user_id`

Optional attributes for object create:

- `expires_at`

- `tasks_to_be_done`

Object update

Required attributes for object update:

- `access_level`

Optional attributes for object update:

- `expires_at`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectMember`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectMember`

`class gitlab.v4.objects.ProjectMergeRequest(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`
Bases: `SubscribableMixin, TodoMixin, TimeTrackingMixin, ParticipantsMixin, SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`approval_rules: ProjectMergeRequestApprovalRuleManager`

`approval_state: ProjectMergeRequestApprovalStateManager`

`approvals: ProjectMergeRequestApprovalManager`

approve(*sha: str | None = None*, ***kwargs: Any*) → Dict[str, Any]

Approve the merge request.

Parameters

- **sha (str / None)** – Head SHA of MR
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabMRAccuracyError** – If the approval failed

Returns

A dict containing the result.

Return type

Dict[str, Any]

https://docs.gitlab.com/ee/api/merge_request_approvals.html#approve-merge-request

awardemojis: *ProjectMergeRequestAwardEmojiManager*

cancel_merge_when_pipeline_succeeds(***kwargs: Any*) → Dict[str, str]

Cancel merge when the pipeline succeeds.

Parameters

- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabMROnBuildSuccessError** – If the server could not handle the request

Returns

dict of the parsed json returned by the server

Return type

Dict[str, str]

changes(***kwargs: Any*) → Dict[str, Any] | Response

List the merge request changes.

Parameters

- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabListError** – If the list could not be retrieved

Returns

List of changes

Return type

Dict[str, Any] | Response

closes_issues(***kwargs: Any*) → RESTObjectList

List issues that will close on merge.”

Parameters

- **all** – If True, return all the items, without pagination
- **per_page** – Number of items to retrieve per request
- **page** – ID of the page to return (starts with page 1)
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabListError** – If the list could not be retrieved

Returns

List of issues

Return type

`RESTObjectList`

commits(kwargs: Any) → RESTObjectList**

List the merge request commits.

Parameters

- **all** – If True, return all the items, without pagination
- **per_page** – Number of items to retrieve per request
- **page** – ID of the page to return (starts with page 1)
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabListError** – If the list could not be retrieved

Returns

The list of commits

Return type

`RESTObjectList`

diffs: ProjectMergeRequestDiffManager

discussions: ProjectMergeRequestDiscussionManager

draft_notes: ProjectMergeRequestDraftNoteManager

merge(merge_commit_message: str | None = None, should_remove_source_branch: bool | None = None, merge_when_pipeline_succeeds: bool | None = None, **kwargs: Any) → Dict[str, Any]

Accept the merge request.

Parameters

- **merge_commit_message (str / None)** – Commit message
- **should_remove_source_branch (bool / None)** – If True, removes the source branch
- **merge_when_pipeline_succeeds (bool / None)** – Wait for the build to succeed, then merge
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabMRClosedError** – If the merge failed

Return type*Dict[str, Any]***merge_ref**(**kwargs: Any) → Dict[str, Any] | Response

**Attempt to merge changes between source and target branches into
refs/merge-requests/:iid/merge.**

Parameters

- **kwargs (Any) – Extra options to send to the server (e.g. sudo)

Raises

- GitlabGetError** – If cannot be merged

Return type*Dict[str, Any] | Response***notes:** *ProjectMergeRequestNoteManager***pipelines:** *ProjectMergeRequestPipelineManager***rebase**(**kwargs: Any) → Dict[str, Any] | Response

Attempt to rebase the source branch onto the target branch

Parameters

- **kwargs (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabMRRebaseError** – If rebasing failed

Return type*Dict[str, Any] | Response***reset_approvals**(**kwargs: Any) → Dict[str, Any] | Response

Clear all approvals of the merge request.

Parameters

- **kwargs (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabMRResetApprovalError** – If reset approval failed

Return type*Dict[str, Any] | Response***resourcelabelevents:** *ProjectMergeRequestResourceLabelEventManager***resourcemilestoneevents:** *ProjectMergeRequestResourceMilestoneEventManager***resourcestateevents:** *ProjectMergeRequestResourceStateEventManager*

reviewer_details: *ProjectMergeRequestReviewerDetailManager*

unapprove(kwargs: Any) → None**

Unapprove the merge request.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabMRApiApprovalError** – If the unapproval failed

Return type

None

https://docs.gitlab.com/ee/api/merge_request_approvals.html#unapprove-merge-request

class gitlab.v4.objects.ProjectMergeRequestApproval(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)

Bases: *SaveMixin, RESTObject*

Parameters

- **manager (RESTManager)**
- **attrs (Dict[str, Any])**
- **created_from_list (bool)**
- **lazy (bool)**

class gitlab.v4.objects.ProjectMergeRequestApprovalManager(gl: Gitlab, parent: RESTObject | None = None)

Bases: *GetWithoutIdMixin, UpdateMixin, RESTManager*

Object Creation

Object update

Required attributes for object update:

- approvals_required

Parameters

- **gl (Gitlab)**
- **parent (RESTObject / None)**

get(kwargs: Any) → ProjectMergeRequestApproval**

Retrieve a single object.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct

- **GitlabGetError** – If the server cannot perform the request

Return type`ProjectMergeRequestApproval`

```
set_approvers(approvals_required: int, approver_ids: List[int] | None = None, approver_group_ids: List[int] | None = None, approval_rule_name: str = 'name', **kwargs: Any) → RESTObject
```

Change MR-level allowed approvers and approver groups.

Parameters

- **approvals_required** (`int`) – The number of required approvals for this rule
- **approver_ids** (`List[int]` / `None`) – User IDs that can approve MRs
- **approver_group_ids** (`List[int]` / `None`) – Group IDs whose members can approve MRs
- **approval_rule_name** (`str`)
- **kwargs** (`Any`)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the server failed to perform the request

Return type`RESTObject`

```
class gitlab.v4.objects.ProjectMergeRequestApprovalRule(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

`approval_rule_id: int`

`id: int`

`merge_request_iid: int`

`save(**kwargs: Any) → None`

Save the changes made to the object to the server.

The object is updated to match what the server returns.

Parameters

- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the server cannot perform the request

Return type

None

```
class gitlab.v4.objects.ProjectMergeRequestApprovalRuleManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- id
- merge_request_iid
- name
- approvals_required

Optional attributes for object create:

- approval_project_rule_id
- user_ids
- group_ids

Object update

Required attributes for object update:

- id
- merge_request_iid
- approval_rule_id
- name
- approvals_required

Optional attributes for object update:

- user_ids
- group_ids

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

create(*data*: *Dict[str, Any]* / *None* = *None*, ***kwargs*: *Any*) → *RESTObject*

Create a new object.

Parameters

- **data** (*Dict[str, Any]* / *None*) – Parameters to send to the server to create the resource
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo or ‘ref_name’, ‘stage’, ‘name’, ‘all’)

Raises

- **GitlabAuthenticationError** – If authentication is not correct

- **GitlabCreateError** – If the server cannot perform the request

Returns

A new instance of the manage object class build with
the data sent by the server

Return type

RESTObject

get(*id*: str | int, *lazy*: bool = False, ***kwargs*: Any) → ProjectMergeRequestApprovalRule

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectMergeRequestApprovalRule

class gitlab.v4.objects.ProjectMergeRequestApprovalState(*manager*: RESTManager, *attrs*: Dict[str, Any], *, *created_from_list*: bool = False, *lazy*: bool = False)

Bases: RESTObject

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

class gitlab.v4.objects.ProjectMergeRequestApprovalStateManager(*gl*: Gitlab, *parent*: RESTObject | None = None)

Bases: GetWithoutIdMixin, RESTManager

Object Creation**Object update****Parameters**

- **gl** (Gitlab)
- **parent** (RESTObject | None)

```
get(**kwargs: Any) → ProjectMergeRequestApprovalState
```

Retrieve a single object.

Parameters

- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectMergeRequestApprovalState

```
class gitlab.v4.objects.ProjectMergeRequestAwardEmoji(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin, RESTObject*

Parameters

- **manager (RESTManager)**
- **attrs (Dict[str, Any])**
- **created_from_list (bool)**
- **lazy (bool)**

```
class gitlab.v4.objects.ProjectMergeRequestAwardEmojiManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *NoUpdateMixin, RESTManager*

Object Creation

Required attributes for object create:

- name

Object update

Parameters

- **gl (Gitlab)**
- **parent (RESTObject / None)**

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectMergeRequestAwardEmoji
```

Retrieve a single object.

Parameters

- **id (str / int)** – ID of the object to retrieve
- **lazy (bool)** – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectMergeRequestAwardEmoji

```
class gitlab.v4.objects.ProjectMergeRequestDiff(manager: RESTManager, attrs: Dict[str, Any], *,  
                                               created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject***Parameters**

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectMergeRequestDiffManager(gl: Gitlab, parent: RESTObject | None =  
                                                    None)
```

Bases: *RetrieveMixin, RESTManager***Object Creation****Object update****Parameters**

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectMergeRequestDiff
```

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

ReturnsThe generated *RESTObject*.**Raises**

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectMergeRequestDiff

```
class gitlab.v4.objects.ProjectMergeRequestDiscussion(manager: RESTManager, attrs: Dict[str,  
                                         Any], *, created_from_list: bool = False,  
                                                   lazy: bool = False)
```

Bases: *SaveMixin, RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

notes: `ProjectMergeRequestDiscussionNoteManager`

```
class gitlab.v4.objects.ProjectMergeRequestDiscussionManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RetrieveMixin, CreateMixin, UpdateMixin, RESTManager`

Object Creation

Required attributes for object create:

- `body`

Optional attributes for object create:

- `created_at`
- `position`

Object update

Required attributes for object update:

- `resolved`

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

get(`id: str | int, lazy: bool = False, **kwargs: Any`) → `ProjectMergeRequestDiscussion`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. `sudo`)

Returns

The generated `RESTObject`.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectMergeRequestDiscussion`

```
class gitlab.v4.objects.ProjectMergeRequestDiscussionNote(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.ProjectMergeRequestDiscussionNoteManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `GetMixin, CreateMixin, UpdateMixin, DeleteMixin, RESTManager`

Object Creation

Required attributes for object create:

- `body`

Optional attributes for object create:

- `created_at`

Object update

Required attributes for object update:

- `body`

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectMergeRequestDiscussionNote
```

Retrieve a single object.

Parameters

- `id` (`str` / `int`) – ID of the object to retrieve
- `lazy` (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs` (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated `RESTObject`.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectMergeRequestDiscussionNote`

```
class gitlab.v4.objects.ProjectMergeRequestDraftNote(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin, SaveMixin, RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

publish(kwargs: Any) → None**

Parameters

kwargs (`Any`)

Return type

`None`

```
class gitlab.v4.objects.ProjectMergeRequestDraftNoteManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- `note`

Optional attributes for object create:

- `commit_id`
- `in_reply_to_discussion_id`
- `position`
- `resolve_discussion`

Object update

Optional attributes for object update:

- `position`

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject / None`)

bulk_publish(kwargs: Any) → None**

Parameters

kwargs (`Any`)

Return type

`None`

get(*id*: str | int, *lazy*: bool = False, ***kwargs*: Any) → ProjectMergeRequestDraftNote

Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectMergeRequestDraftNote

class gitlab.v4.objects.ProjectMergeRequestManager(*gl*: Gitlab, *parent*: RESTObject | None = None)

Bases: *CRUDMixin*, *RESTManager*

Object listing filters

- state
- order_by
- sort
- milestone
- view
- labels
- created_after
- created_before
- updated_after
- updated_before
- scope
- iids
- author_id
- assignee_id
- approver_ids
- approved_by_ids
- my_reaction_emoji
- source_branch
- target_branch
- search

- wip

Object Creation

Required attributes for object create:

- source_branch
- target_branch
- title

Optional attributes for object create:

- allow_collaboration
- allow_maintainer_to_push
- approvals_before_merge
- assignee_id
- assignee_ids
- description
- labels
- milestone_id
- remove_source_branch
- reviewer_ids
- squash
- target_project_id

Object update

Optional attributes for object update:

- target_branch
- assignee_id
- title
- description
- state_event
- labels
- milestone_id
- remove_source_branch
- discussion_locked
- allow_maintainer_to_push
- squash
- reviewer_ids

Parameters

- `gl` ([Gitlab](#))
- `parent` ([RESTObject](#) / `None`)

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *ProjectMergeRequest*

Retrieve a single object.

Parameters

- **id** (*str | int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectMergeRequest

class `gitlab.v4.objects.ProjectMergeRequestNote(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

awardemojis: *ProjectMergeRequestNoteAwardEmojiManager*

class `gitlab.v4.objects.ProjectMergeRequestNoteAwardEmoji(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: *ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

class `gitlab.v4.objects.ProjectMergeRequestNoteAwardEmojiManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: *NoUpdateMixin, RESTManager*

Object Creation

Required attributes for object create:

- name

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = *False*, ***kwargs*: Any) → [ProjectMergeRequestNoteAwardEmoji](#)

Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[ProjectMergeRequestNoteAwardEmoji](#)

class `gitlab.v4.objects.ProjectMergeRequestNoteManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: [CRUDMixin](#), [RESTManager](#)

Object Creation

Required attributes for object create:

- body

Object update

Required attributes for object update:

- body

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = *False*, ***kwargs*: Any) → [ProjectMergeRequestNote](#)

Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectMergeRequestNote`

```
class gitlab.v4.objects.ProjectMergeRequestPipeline(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectMergeRequestPipelineManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `CreateMixin, ListMixin, RESTManager`

Object Creation**Object update****Parameters**

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
class gitlab.v4.objects.ProjectMergeRequestResourceLabelEvent(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectMergeRequestResourceLabelEventManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RetrieveMixin, RESTManager`

Object Creation**Object update****Parameters**

- **gl** (`Gitlab`)

- **parent** (`RESTObject` / `None`)

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectMergeRequestResourceLabelEvent`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated `RESTObject`.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectMergeRequestResourceLabelEvent`

```
class gitlab.v4.objects.ProjectMergeRequestResourceMilestoneEvent(manager: RESTManager,  
                     attrs: Dict[str, Any], *,  
                     created_from_list: bool =  
                     False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectMergeRequestResourceMilestoneEventManager(gl: Gitlab, parent:  
                         RESTObject | None  
                         = None)
```

Bases: `RetrieveMixin`, `RESTManager`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectMergeRequestResourceMilestoneEvent`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.

- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[ProjectMergeRequestResourceMilestoneEvent](#)

```
class gitlab.v4.objects.ProjectMergeRequestResourceStateEvent(manager: RESTManager, attrs:  
    Dict[str, Any], *,  
    created_from_list: bool = False,  
    lazy: bool = False)
```

Bases: [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict\[str, Any\]](#))
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

```
class gitlab.v4.objects.ProjectMergeRequestResourceStateManager(gl: Gitlab, parent:  
    RESTObject | None =  
    None)
```

Bases: [RetrieveMixin](#), [RESTManager](#)

Object Creation**Object update****Parameters**

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = [False](#), ****kwargs**: Any) → [ProjectMergeRequestResourceStateEvent](#)

Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** ([bool](#)) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectMergeRequestResourceStateEvent`

```
class gitlab.v4.objects.ProjectMergeRequestReviewerDetail(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectMergeRequestReviewerDetailManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `ListMixin, RESTManager`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject / None`)

```
class gitlab.v4.objects.ProjectMergeTrain(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectMergeTrainManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `ListMixin, RESTManager`

Object listing filters

- `scope`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject / None`)

```
class gitlab.v4.objects.ProjectMilestone(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: PromoteMixin, SaveMixin, ObjectDeleteMixin, RESTObject

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

issues(kwargs: Any) → RESTObjectList**

List issues related to this milestone.

Parameters

- **all** – If True, return all the items, without pagination
- **per_page** – Number of items to retrieve per request
- **page** – ID of the page to return (starts with page 1)
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabListError** – If the list could not be retrieved

Returns

The list of issues

Return type

RESTObjectList

merge_requests(kwargs: Any) → RESTObjectList**

List the merge requests related to this milestone.

Parameters

- **all** – If True, return all the items, without pagination
- **per_page** – Number of items to retrieve per request
- **page** – ID of the page to return (starts with page 1)
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabListError** – If the list could not be retrieved

Returns

The list of merge requests

Return type

RESTObjectList

`class gitlab.v4.objects.ProjectMilestoneManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `CRUDMixin, RESTManager`

Object listing filters

- `iids`
- `state`
- `search`

Object Creation

Required attributes for object create:

- `title`

Optional attributes for object create:

- `description`
- `due_date`
- `start_date`
- `state_event`

Object update

Optional attributes for object update:

- `title`
- `description`
- `due_date`
- `start_date`
- `state_event`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectMilestone`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

ProjectMilestone

```
class gitlab.v4.objects.ProjectNote(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject***Parameters**

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectNoteManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin, RESTManager***Object Creation**

Required attributes for object create:

- body

Object update**Parameters**

- **gl** (*Gitlab*)
- **parent** (*RESTObject* | *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectNote
```

Retrieve a single object.

Parameters

- **id** (*str* | *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

ReturnsThe generated *RESTObject*.**Raises**

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectNote

```
class gitlab.v4.objects.ProjectNotificationSettings(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *NotificationSettings***Parameters**

- **manager** (*RESTManager*)

- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.ProjectNotificationSettingsManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `NotificationSettingsManager`

Object Creation

Object update

Optional attributes for object update:

- `level`
- `notification_email`
- `new_note`
- `new_issue`
- `reopen_issue`
- `close_issue`
- `reassign_issue`
- `new_merge_request`
- `reopen_merge_request`
- `close_merge_request`
- `reassign_merge_request`
- `merge_merge_request`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
get(**kwargs: Any) → ProjectNotificationSettings
```

Retrieve a single object.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectNotificationSettings`

```
class gitlab.v4.objects.ProjectPackage(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)  
Bases: ObjectDeleteMixin, RESTObject  
  
Parameters  


- manager (RESTManager)
- attrs (Dict[str, Any])
- created_from_list (bool)
- lazy (bool)

  
package_files: ProjectPackageManager  
  
pipelines: ProjectPackagePipelineManager  
  
class gitlab.v4.objects.ProjectPackageFile(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)  
Bases: ObjectDeleteMixin, RESTObject  
  
Parameters  


- manager (RESTManager)
- attrs (Dict[str, Any])
- created_from_list (bool)
- lazy (bool)

  
class gitlab.v4.objects.ProjectPackageManager(gl: Gitlab, parent: RESTObject | None = None)  
Bases: DeleteMixin, ListMixin, RESTManager  
  
Object Creation  
  
Object update  
  
Parameters  


- gl (Gitlab)
- parent (RESTObject / None)

  
class gitlab.v4.objects.ProjectPackageManager(gl: Gitlab, parent: RESTObject | None = None)  
Bases: ListMixin, GetMixin, DeleteMixin, RESTManager  
  
Object listing filters  


- order_by
- sort
- package_type
- package_name

  
Object Creation  
  
Object update  
  
Parameters  


- gl (Gitlab)
- parent (RESTObject / None)

```

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *ProjectPackage*

Retrieve a single object.

Parameters

- **id** (*str | int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectPackage

class `gitlab.v4.objects.ProjectPackagePipeline(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

class `gitlab.v4.objects.ProjectPackagePipelineManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: *ListMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject | None*)

class `gitlab.v4.objects.ProjectPagesDomain(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectPagesDomainManager(gl: Gitlab, parent: RESTObject | None = None)
Bases: CRUDMixin, RESTManager
```

Object Creation

Required attributes for object create:

- domain

Optional attributes for object create:

- certificate
- key

Object update

Optional attributes for object update:

- certificate
- key

Parameters

- gl (Gitlab)
- parent (RESTObject / None)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectPagesDomain
```

Retrieve a single object.

Parameters

- id (str / int) – ID of the object to retrieve
- lazy (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- **kwargs (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- GitlabAuthenticationError – If authentication is not correct
- GitlabGetError – If the server cannot perform the request

Return type

ProjectPagesDomain

```
class gitlab.v4.objects.ProjectPipeline(manager: RESTManager, attrs: Dict[str, Any], *,
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: RefreshMixin, ObjectDeleteMixin, RESTObject

Parameters

- manager (RESTManager)
- attrs (Dict[str, Any])
- created_from_list (bool)
- lazy (bool)

bridges: *ProjectPipelineBridgeManager*

cancel(kwargs: Any) → Dict[str, Any] | Response**

Cancel the job.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabPipelineCancelError** – If the request failed

Return type

Dict[str, Any] | Response

jobs: *ProjectPipelineJobManager*

retry(kwargs: Any) → Dict[str, Any] | Response**

Retry the job.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabPipelineRetryError** – If the request failed

Return type

Dict[str, Any] | Response

test_report: *ProjectPipelineTestReportManager*

test_report_summary: *ProjectPipelineTestReportSummaryManager*

variables: *ProjectPipelineVariableManager*

class gitlab.v4.objects.ProjectPipelineBridge(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

class gitlab.v4.objects.ProjectPipelineBridgeManager(gl: Gitlab, parent: RESTObject | None = None)

Bases: *ListMixin, RESTManager*

Object listing filters

- scope

Object Creation

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

```
class gitlab.v4.objects.ProjectPipelineJob(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.ProjectPipelineJobManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `ListMixin`, `RESTManager`

Object listing filters

- `scope`
- `include_retried`

Object Creation**Object update****Parameters**

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

```
class gitlab.v4.objects.ProjectPipelineManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RetrieveMixin`, `CreateMixin`, `DeleteMixin`, `RESTManager`

Object listing filters

- `scope`
- `status`
- `source`
- `ref`
- `sha`
- `yaml_errors`
- `name`
- `username`
- `order_by`
- `sort`

Object Creation

Required attributes for object create:

- `ref`

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

create(*data*: *Dict[str, Any]* | *None* = *None*, ***kwargs*: *Any*) → [ProjectPipeline](#)

Creates a new object.

Parameters

- **data** (*Dict[str, Any]* / *None*) – Parameters to send to the server to create the resource
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the server cannot perform the request

Returns

A new instance of the managed object class build with
the data sent by the server

Return type

[ProjectPipeline](#)

get(*id*: *str* | *int*, *lazy*: *bool* = *False*, ***kwargs*: *Any*) → [ProjectPipeline](#)

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[ProjectPipeline](#)

class gitlab.v4.objects.ProjectPipelineSchedule(*manager*: [RESTManager](#), *attrs*: *Dict[str, Any]*, *, *created_from_list*: *bool* = *False*, *lazy*: *bool* = *False*)

Bases: [SaveMixin](#), [ObjectDeleteMixin](#), [RESTObject](#)

Parameters

- **manager** ([RESTManager](#))
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)

- **lazy** (*bool*)

pipelines: *ProjectPipelineSchedulePipelineManager*

play(kwargs: Any) → Dict[str, Any]**

Trigger a new scheduled pipeline, which runs immediately. The next scheduled run of this pipeline is not affected.

Parameters

****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabPipelinePlayError** – If the request failed

Return type

Dict[str, *Any*]

take_ownership(kwargs: Any) → None**

Update the owner of a pipeline schedule.

Parameters

****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabOwnershipError** – If the request failed

Return type

None

variables: *ProjectPipelineScheduleVariableManager*

class gitlab.v4.objects.ProjectPipelineScheduleManager(gl: Gitlab, parent: RESTObject | None = None)

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- **description**
- **ref**
- **cron**

Optional attributes for object create:

- **cron_timezone**
- **active**

Object update

Optional attributes for object update:

- **description**
- **ref**
- **cron**

- `cron_timezone`
- `active`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectPipelineSchedule`

Retrieve a single object.

Parameters

- `id (str | int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectPipelineSchedule`

`class gitlab.v4.objects.ProjectPipelineSchedulePipeline(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.ProjectPipelineSchedulePipelineManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `ListMixin, RESTManager`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
class gitlab.v4.objects.ProjectPipelineScheduleVariable(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectPipelineScheduleVariableManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CreateMixin, UpdateMixin, DeleteMixin, RESTManager*

Object Creation

Required attributes for object create:

- key
- value

Object update

Required attributes for object update:

- key
- value

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
class gitlab.v4.objects.ProjectPipelineTestReport(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectPipelineTestReportManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *GetWithoutIdMixin, RESTManager*

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(**kwargs: Any) → ProjectPipelineTestReport`

Retrieve a single object.

Parameters

- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

- The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

- `ProjectPipelineTestReport`

```
class gitlab.v4.objects.ProjectPipelineTestReportSummary(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.ProjectPipelineTestReportSummaryManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `GetWithoutIdMixin, RESTManager`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(**kwargs: Any) → ProjectPipelineTestReportSummary`

Retrieve a single object.

Parameters

- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

ProjectPipelineTestReportSummary

```
class gitlab.v4.objects.ProjectPipelineVariable(manager: RESTManager, attrs: Dict[str, Any], *,  
                                               created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectPipelineVariableManager(gl: Gitlab, parent: RESTObject | None =  
                                                       None)
```

Bases: *ListMixin, RESTManager*

Object Creation**Object update****Parameters**

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
class gitlab.v4.objects.ProjectProtectedBranch(manager: RESTManager, attrs: Dict[str, Any], *,  
                                                created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectProtectedBranchManager(gl: Gitlab, parent: RESTObject | None =  
                                                       None)
```

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- **name**

Optional attributes for object create:

- **push_access_level**
- **merge_access_level**
- **unprotect_access_level**
- **allow_force_push**
- **allowed_to_push**

- `allowed_to_merge`
- `allowed_to_unprotect`
- `code_owner_approval_required`

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectProtectedBranch`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectProtectedBranch`

`class gitlab.v4.objects.ProjectProtectedEnvironment(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.ProjectProtectedEnvironmentManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `RetrieveMixin, CreateMixin, DeleteMixin, RESTManager`

Object Creation

Required attributes for object create:

- `name`
- `deploy_access_levels`

Optional attributes for object create:

- `required_approval_count`

- approval_rules

Object update

Parameters

- gl ([Gitlab](#))
- parent ([RESTObject](#) / [None](#))

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectProtectedEnvironment`

Retrieve a single object.

Parameters

- id (str / int) – ID of the object to retrieve
- lazy (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- **kwargs (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- [GitlabAuthenticationError](#) – If authentication is not correct
- [GitlabGetError](#) – If the server cannot perform the request

Return type

[ProjectProtectedEnvironment](#)

`class gitlab.v4.objects.ProjectProtectedTag(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: [ObjectDeleteMixin](#), [RESTObject](#)

Parameters

- manager ([RESTManager](#))
- attrs ([Dict](#)[str, Any])
- created_from_list (bool)
- lazy (bool)

`class gitlab.v4.objects.ProjectProtectedTagManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: [NoUpdateMixin](#), [RESTManager](#)

Object Creation

Required attributes for object create:

- name

Optional attributes for object create:

- create_access_level

Object update

Parameters

- gl ([Gitlab](#))
- parent ([RESTObject](#) / [None](#))

get(*id*: str | int, *lazy*: bool = False, ***kwargs*: Any) → ProjectProtectedTag

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectProtectedTag

class gitlab.v4.objects.ProjectPushRules(*manager*: RESTManager, *attrs*: Dict[str, Any], *, *created_from_list*: bool = False, *lazy*: bool = False)

Bases: *SaveMixin*, *ObjectDeleteMixin*, RESTObject

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

class gitlab.v4.objects.ProjectPushRulesManager(*gl*: Gitlab, *parent*: RESTObject | None = None)

Bases: *GetWithoutIdMixin*, *CreateMixin*, *UpdateMixin*, *DeleteMixin*, RESTManager

Object Creation

Optional attributes for object create:

- author_email_regex
- branch_name_regex
- commit_committer_check
- commit_message_negative_regex
- commit_message_regex
- deny_delete_tag
- file_name_regex
- max_file_size
- member_check
- prevent_secrets
- reject_unsigned_commits

Object update

Optional attributes for object update:

- `author_email_regex`
- `branch_name_regex`
- `commit_committer_check`
- `commit_message_negative_regex`
- `commit_message_regex`
- `deny_delete_tag`
- `file_name_regex`
- `max_file_size`
- `member_check`
- `prevent_secrets`
- `reject_unsigned_commits`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(**kwargs: Any) → ProjectPushRules`

Retrieve a single object.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectPushRules`

`class gitlab.v4.objects.ProjectRegistryRepository(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`tags: ProjectRegistryTagManager`

```
class gitlab.v4.objects.ProjectRegistryRepositoryManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *DeleteMixin, ListMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
class gitlab.v4.objects.ProjectRegistryTag(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectRegistryTagManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *DeleteMixin, RetrieveMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

delete_in_bulk(name_regex_delete: str, **kwargs: Any) → None

Delete Tag in bulk

Parameters

- **name_regex_delete** (*str*) – The regex of the name to delete. To delete all tags specify `.*`.
- **keep_n** – The amount of latest tags of given name to keep.
- **name_regex_keep** – The regex of the name to keep. This value overrides any matches from `name_regex`.
- **older_than** – Tags to delete that are older than the given time, written in human readable form 1h, 1d, 1month.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeleteError** – If the server cannot perform the request

Return type

None

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *ProjectRegistryTag*

Retrieve a single object.

Parameters

- **id** (*str | int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectRegistryTag

class `gitlab.v4.objects.ProjectRelease(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: *SaveMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

links: *ProjectReleaseLinkManager*

class `gitlab.v4.objects.ProjectReleaseLink(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: *ObjectDeleteMixin, SaveMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

class `gitlab.v4.objects.ProjectReleaseLinkManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- **name**
- **url**

Optional attributes for object create:

- `filepath`
- `direct_asset_path`
- `link_type`

Object update

Optional attributes for object update:

- `name`
- `url`
- `filepath`
- `direct_asset_path`
- `link_type`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject | None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectReleaseLink`

Retrieve a single object.

Parameters

- `id (str | int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectReleaseLink`

`class gitlab.v4.objects.ProjectReleaseManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `CRUDMixin, RESTManager`

Object listing filters

- `order_by`
- `sort`
- `include_html_description`

Object Creation

Required attributes for object create:

- `tag_name`

Optional attributes for object create:

- name
- description
- ref
- assets

Object update

Optional attributes for object update:

- name
- description
- milestones
- released_at

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectRelease`

Retrieve a single object.

Parameters

- `id` (`str` / `int`) – ID of the object to retrieve
- `lazy` (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs` (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectRelease`

`class gitlab.v4.objects.ProjectRemoteMirror(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `ObjectDeleteMixin, SaveMixin, RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.ProjectRemoteMirrorManager(gl: Gitlab, parent: RESTObject | None = None)
Bases: ListMixin, CreateMixin, UpdateMixin, DeleteMixin, RESTManager
```

Object Creation

Required attributes for object create:

- url

Optional attributes for object create:

- enabled
- only_protected_branches

Object update

Optional attributes for object update:

- enabled
- only_protected_branches

Parameters

- gl (Gitlab)
- parent (RESTObject / None)

```
class gitlab.v4.objects.ProjectResourceGroup(manager: RESTManager, attrs: Dict[str, Any], *,
                                             created_from_list: bool = False, lazy: bool = False)
```

Bases: SaveMixin, RESTObject

Parameters

- manager (RESTManager)
- attrs (Dict[str, Any])
- created_from_list (bool)
- lazy (bool)

upcoming_jobs: ProjectResourceGroupUpcomingJobManager

```
class gitlab.v4.objects.ProjectResourceGroupManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: RetrieveMixin, UpdateMixin, RESTManager

Object listing filters

- order_by
- sort
- include_html_description

Object Creation

Object update

Optional attributes for object update:

- process_mode

Parameters

- gl (Gitlab)

- **parent** (`RESTObject` / `None`)

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectResourceGroup`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated `RESTObject`.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectResourceGroup`

`class gitlab.v4.objects.ProjectResourceGroupUpcomingJob(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

`class gitlab.v4.objects.ProjectResourceGroupUpcomingJobManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `ListMixin`, `RESTManager`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

`class gitlab.v4.objects.ProjectRunner(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `ObjectDeleteMixin`, `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)

- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectRunnerManager(gl: Gitlab, parent: RESTObject | None = None)
Bases: CreateMixin, DeleteMixin, ListMixin, RESTManager
```

Object listing filters

- scope
- tag_list

Object Creation

Required attributes for object create:

- runner_id

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
class gitlab.v4.objects.ProjectSecureFile(manager: RESTManager, attrs: Dict[str, Any], *,
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin*, *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
download(streamed: bool = False, action: Callable[[bytes], None] | None = None, chunk_size: int = 1024, *,
         iterator: bool = False, **kwargs: Any) → bytes | Iterator[Any] | None
```

Download the secure file.

Parameters

- **streamed** (*bool*) – If True the data will be processed by chunks of *chunk_size* and each chunk is passed to *action* for treatment
- **iterator** (*bool*) – If True directly return the underlying response iterator
- **action** (*Callable[[bytes], None] / None*) – Callable responsible of dealing with chunk of data
- **chunk_size** (*int*) – Size of each chunk
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the artifacts could not be retrieved

Returns

The artifacts if *streamed* is False, None otherwise.

Return type

bytes | *Iterator[Any]* | *None*

```
class gitlab.v4.objects.ProjectSecureFileManager(gl: Gitlab, parent: RESTObject | None = None)
Bases: NoUpdateMixin, RESTManager
```

Object Creation

Required attributes for object create:

- name
- file

Object update

Parameters

- gl ([Gitlab](#))
- parent ([RESTObject](#) / [None](#))

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectSecureFile
```

Retrieve a single object.

Parameters

- id (str / int) – ID of the object to retrieve
- lazy (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- **kwargs (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- [GitlabAuthenticationError](#) – If authentication is not correct
- [GitlabGetError](#) – If the server cannot perform the request

Return type

[ProjectSecureFile](#)

```
class gitlab.v4.objects.ProjectService(manager: RESTManager, attrs: Dict[str, Any], *,
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: [ProjectIntegration](#)

Parameters

- manager ([RESTManager](#))
- attrs ([Dict](#)[str, Any])
- created_from_list (bool)
- lazy (bool)

```
class gitlab.v4.objects.ProjectServiceManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: [ProjectIntegrationManager](#)

Object Creation

Object update

Parameters

- gl ([Gitlab](#))

- **parent** (`RESTObject` / `None`)

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectService`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectService`

`class gitlab.v4.objects.ProjectSnippet(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `UserAgentDetailMixin`, `SaveMixin`, `ObjectDeleteMixin`, `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

`awardemojis: ProjectSnippetAwardEmojiManager`

`content(streamed: bool = False, action: Callable[[...], Any] | None = None, chunk_size: int = 1024, *, iterator: bool = False, **kwargs: Any) → bytes | Iterator[Any] | None`

Return the content of a snippet.

Parameters

- **streamed** (`bool`) – If True the data will be processed by chunks of `chunk_size` and each chunk is passed to `action` for treatment.
- **iterator** (`bool`) – If True directly return the underlying response iterator
- **action** (`Callable[[...], Any] | None`) – Callable responsible of dealing with chunk of data
- **chunk_size** (`int`) – Size of each chunk
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the content could not be retrieved

Returns

The snippet content

Return type

bytes | Iterator[Any] | None

discussions: ProjectSnippetDiscussionManager

notes: ProjectSnippetNoteManager

```
class gitlab.v4.objects.ProjectSnippetAwardEmoji(manager: RESTManager, attrs: Dict[str, Any], *,  
                                                created_from_list: bool = False, lazy: bool = False)
```

Bases: ObjectDeleteMixin, RESTObject

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

```
class gitlab.v4.objects.ProjectSnippetAwardEmojiManager(gl: Gitlab, parent: RESTObject | None =  
                                                       None)
```

Bases: NoUpdateMixin, RESTManager

Object Creation

Required attributes for object create:

- name

Object update**Parameters**

- **gl** (Gitlab)
- **parent** (RESTObject | None)

get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectSnippetAwardEmoji

Retrieve a single object.

Parameters

- **id** (str | int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectSnippetAwardEmoji

```
class gitlab.v4.objects.ProjectSnippetDiscussion(manager: RESTManager, attrs: Dict[str, Any], *,  
                                                created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

notes: *ProjectSnippetDiscussionNoteManager*

```
class gitlab.v4.objects.ProjectSnippetDiscussionManager(gl: Gitlab, parent: RESTObject | None =  
                                                       None)
```

Bases: *RetrieveMixin, CreateMixin, RESTManager*

Object Creation

Required attributes for object create:

- body

Optional attributes for object create:

- **created_at**

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

get(*id*: str | int, *lazy*: bool = False, **kwargs: Any) → *ProjectSnippetDiscussion*

Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectSnippetDiscussion

```
class gitlab.v4.objects.ProjectSnippetDiscussionNote(manager: RESTManager, attrs: Dict[str, Any],  
                                                       *, created_from_list: bool = False, lazy: bool =  
                                                       False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectSnippetDiscussionNoteManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `GetMixin, CreateMixin, UpdateMixin, DeleteMixin, RESTManager`

Object Creation

Required attributes for object create:

- `body`

Optional attributes for object create:

- `created_at`

Object update

Required attributes for object update:

- `body`

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectSnippetDiscussionNote
```

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. `sudo`)

Returns

The generated `RESTObject`.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectSnippetDiscussionNote`

```
class gitlab.v4.objects.ProjectSnippetManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `CRUDMixin, RESTManager`

Object Creation

Required attributes for object create:

- `title`
- `visibility`

Optional attributes for object create:

- `description`
- `content`

Mutually exclusive attributes for object create:

- `files`
- `file_name`

Object update

Optional attributes for object update:

- `title`
- `files`
- `file_name`
- `content`
- `visibility`
- `description`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectSnippet`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectSnippet`

`class gitlab.v4.objects.ProjectSnippetNote(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SaveMixin, ObjectDeleteMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

awardemojis: `ProjectSnippetNoteAwardEmojiManager`

```
class gitlab.v4.objects.ProjectSnippetNoteAwardEmoji(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.ProjectSnippetNoteAwardEmojiManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `NoUpdateMixin, RESTManager`

Object Creation

Required attributes for object create:

- `name`

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

get(`id: str | int, lazy: bool = False, **kwargs: Any`) → `ProjectSnippetNoteAwardEmoji`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectSnippetNoteAwardEmoji`

```
class gitlab.v4.objects.ProjectSnippetNoteManager(gl: Gitlab, parent: RESTObject | None = None)
Bases: CRUDMixin, RESTManager
```

Object Creation

Required attributes for object create:

- body

Object update

Required attributes for object update:

- body

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectSnippetNote
```

Retrieve a single object.

Parameters

- **id** ([str](#) / [int](#)) – ID of the object to retrieve
- **lazy** ([bool](#)) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[ProjectSnippetNote](#)

```
class gitlab.v4.objects.ProjectStorage(manager: RESTManager, attrs: Dict[str, Any], *,
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: RefreshMixin, RESTObject

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict](#)[[str](#), [Any](#)])
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

```
class gitlab.v4.objects.ProjectStorageManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: GetWithoutIdMixin, RESTManager

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

get(`**kwargs: Any`) → `ProjectStorage`

Retrieve a single object.

Parameters

****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`ProjectStorage`

class `gitlab.v4.objects.ProjectTag`(`manager: RESTManager`, `attrs: Dict[str, Any]`, *, `created_from_list: bool = False`, `lazy: bool = False`)

Bases: `ObjectDeleteMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

class `gitlab.v4.objects.ProjectTagManager`(`gl: Gitlab`, `parent: RESTObject | None = None`)

Bases: `NoUpdateMixin, RESTManager`

Object Creation

Required attributes for object create:

- `tag_name`
- `ref`

Optional attributes for object create:

- `message`

Object update**Parameters**

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

get(`id: str | int`, `lazy: bool = False`, `**kwargs: Any`) → `ProjectTag`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve

- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectTag

```
class gitlab.v4.objects.ProjectTrigger(manager: RESTManager, attrs: Dict[str, Any], *,  
                                         created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectTriggerManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- **description**

Object update

Required attributes for object update:

- **description**

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectTrigger
```

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

ProjectTrigger

```
class gitlab.v4.objects.ProjectUser(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject***Parameters**

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectUserManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin, RESTManager***Object listing filters**

- **search**
- **skip_users**

Object Creation**Object update****Parameters**

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
class gitlab.v4.objects.ProjectVariable(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject***Parameters**

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.ProjectVariableManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CRUDMixin, RESTManager***Object Creation**

Required attributes for object create:

- **key**
- **value**

Optional attributes for object create:

- `protected`
- `variable_type`
- `masked`
- `environment_scope`

Object update

Required attributes for object update:

- `key`
- `value`

Optional attributes for object update:

- `protected`
- `variable_type`
- `masked`
- `environment_scope`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectVariable`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`ProjectVariable`

`class gitlab.v4.objects.ProjectWiki(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `SaveMixin, ObjectDeleteMixin, UploadMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`

- **lazy** (bool)

```
class gitlab.v4.objects.ProjectWikiManager(gl: Gitlab, parent: RESTObject | None = None)
    Bases: CRUDMixin, RESTManager
```

Object listing filters

- `with_content`

Object Creation

Required attributes for object create:

- `title`
- `content`

Optional attributes for object create:

- `format`

Object update

Optional attributes for object update:

- `title`
- `content`
- `format`

Parameters

- `gl` (Gitlab)
- `parent` (RESTObject / None)

`get(id: str | int, lazy: bool = False, **kwargs: Any) → ProjectWiki`

Retrieve a single object.

Parameters

- `id` (str / int) – ID of the object to retrieve
- `lazy` (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs` (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

ProjectWiki

```
class gitlab.v4.objects.RegistryRepository(manager: RESTManager, attrs: Dict[str, Any], *,
                                           created_from_list: bool = False, lazy: bool = False)
```

Bases: RESTObject

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict\[str, Any\]](#))
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

class `gitlab.v4.objects.RegistryRepositoryManager`(*gl: Gitlab, parent: RESTObject | None = None*)

Bases: *GetMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → [RegistryRepository](#)

Retrieve a single object.

Parameters

- **id** ([str](#) / [int](#)) – ID of the object to retrieve
- **lazy** ([bool](#)) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

[RegistryRepository](#)

class `gitlab.v4.objects.RepositoryMixin`

Bases: *object*

delete_merged_branches(***kwargs: Any*) → [None](#)

Delete merged branches.

Parameters

- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeleteError** – If the server failed to perform the request

Return type

[None](#)

repository_archive(*sha: str | None = None, streamed: bool = False, action: Callable[[], Any] | None = None, chunk_size: int = 1024, format: str | None = None, path: str | None = None, *, iterator: bool = False, **kwargs: Any*) → bytes | Iterator[Any] | None

Return an archive of the repository.

Parameters

- **sha** (*str | None*) – ID of the commit (default branch by default)
- **streamed** (*bool*) – If True the data will be processed by chunks of *chunk_size* and each chunk is passed to *action* for treatment
- **iterator** (*bool*) – If True directly return the underlying response iterator
- **action** (*Callable[[], Any] | None*) – Callable responsible of dealing with chunk of data
- **chunk_size** (*int*) – Size of each chunk
- **format** (*str | None*) – file format (tar.gz by default)
- **path** (*str | None*) – The subpath of the repository to download (all files by default)
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabListError** – If the server failed to perform the request

Returns

The binary data of the archive

Return type

bytes | Iterator[Any] | None

repository_blob(*sha: str, **kwargs: Any*) → Dict[str, Any] | Response

Return a file by blob SHA.

Parameters

- **sha** (*str*) – ID of the blob
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

The blob content and metadata

Return type

Dict[str, Any] | Response

repository_compare(*from_: str, to: str, **kwargs: Any*) → Dict[str, Any] | Response

Return a diff between two branches/commits.

Parameters

- **from** – Source branch/SHA
- **to** (*str*) – Destination branch/SHA

- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)
- **from_** ([str](#))

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

The diff

Return type

Dict[str, Any] | Response

repository_contributors(**kwargs: [Any](#)) → *GitlabList* | *List[Dict[str, Any]]*

Return a list of contributors for the project.

Parameters

- **all** – If True, return all the items, without pagination
- **per_page** – Number of items to retrieve per request
- **page** – ID of the page to return (starts with page 1)
- **iterator** – If set to True and no pagination option is defined, return a generator instead of a list
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

The contributors

Return type

GitlabList | *List[Dict[str, Any]]*

repository_merge_base(refs: *List[str]*, **kwargs: [Any](#)) → *Dict[str, Any]* | *Response*

Return a diff between two branches/commits.

Parameters

- **refs** (*List[str]*) – The refs to find the common ancestor of. Multiple refs can be passed.
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

The common ancestor commit (*not* a RESTObject)

Return type

Dict[str, Any] | *Response*

```
repository_raw_blob(sha: str, streamed: bool = False, action: Callable[..., Any] | None = None,
                    chunk_size: int = 1024, *, iterator: bool = False, **kwargs: Any) → bytes |
                    Iterator[Any] | None
```

Return the raw file contents for a blob.

Parameters

- **sha** (*str*) – ID of the blob
- **streamed** (*bool*) – If True the data will be processed by chunks of *chunk_size* and each chunk is passed to *action* for treatment
- **iterator** (*bool*) – If True directly return the underlying response iterator
- **action** (*Callable[...]*, *Any* | *None*) – Callable responsible of dealing with chunk of data
- **chunk_size** (*int*) – Size of each chunk
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

The blob content if streamed is False, None otherwise

Return type

bytes | *Iterator[Any]* | *None*

```
repository_tree(path: str = "", ref: str = "", recursive: bool = False, **kwargs: Any) → GitlabList |
    List[Dict[str, Any]]
```

Return a list of files in the repository.

Parameters

- **path** (*str*) – Path of the top folder (/ by default)
- **ref** (*str*) – Reference to a commit or branch
- **recursive** (*bool*) – Whether to get the tree recursively
- **all** – If True, return all the items, without pagination
- **per_page** – Number of items to retrieve per request
- **page** – ID of the page to return (starts with page 1)
- **iterator** – If set to True and no pagination option is defined, return a generator instead of a list
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

The representation of the tree

Return type

GitlabList | *List[Dict[str, Any]]*

```
update_submodule(submodule: str, branch: str, commit_sha: str, **kwargs: Any) → Dict[str, Any] | Response
```

Update a project submodule

Parameters

- **submodule** (*str*) – Full path to the submodule
- **branch** (*str*) – Name of the branch to commit into
- **commit_sha** (*str*) – Full commit SHA to update the submodule to
- **commit_message** – Commit message. If no message is provided, a default one will be set (optional)
- **kwargs** (*Any*)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabPutError** – If the submodule could not be updated

Return type

Dict[*str*, *Any*] | *Response*

```
class gitlab.v4.objects.Runner(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *SaveMixin*, *ObjectDeleteMixin*, *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict*[*str*, *Any*])
- **created_from_list** (*bool*)
- **lazy** (*bool*)

jobs: *RunnerJobManager*

```
class gitlab.v4.objects.RunnerAll(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict*[*str*, *Any*])
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.RunnerAllManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin*, *RESTManager*

Object listing filters

- **scope**
- **type**
- **status**

- paused
- tag_list

Object Creation

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

```
class gitlab.v4.objects.RunnerJob(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:  
                                bool = False, lazy: bool = False)
```

Bases: `RESTObject`

Parameters

- `manager` (`RESTManager`)
- `attrs` (`Dict[str, Any]`)
- `created_from_list` (`bool`)
- `lazy` (`bool`)

```
class gitlab.v4.objects.RunnerJobManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `ListMixin`, `RESTManager`

Object listing filters

- status

Object Creation

Object update

Parameters

- `gl` (`Gitlab`)
- `parent` (`RESTObject` / `None`)

```
class gitlab.v4.objects.RunnerManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `CRUDMixin`, `RESTManager`

Object listing filters

- scope
- type
- status
- paused
- tag_list

Object Creation

Required attributes for object create:

- token

Optional attributes for object create:

- description

- `info`
- `active`
- `locked`
- `run_untagged`
- `tag_list`
- `access_level`
- `maximum_timeout`

Object update

Optional attributes for object update:

- `description`
- `active`
- `tag_list`
- `run_untagged`
- `locked`
- `access_level`
- `maximum_timeout`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

all(*scope: str | None = None, **kwargs: Any*) → List[*Runner*]

List all the runners.

Parameters

- **scope (str / None)** – The scope of runners to show, one of: specific, shared, active, paused, online
- **all** – If True, return all the items, without pagination
- **per_page** – Number of items to retrieve per request
- **page** – ID of the page to return (starts with page 1)
- **iterator** – If set to True and no pagination option is defined, return a generator instead of a list
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabListError** – If the server failed to perform the request

Returns

A list of runners matching the scope.

Return type

List[Runner]

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *Runner*

Retrieve a single object.

Parameters

- **id** (*str | int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

Runner

verify(*token: str, **kwargs: Any*) → None

Validates authentication credentials for a registered Runner.

Parameters

- **token** (*str*) – The runner's authentication token
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabVerifyError** – If the server failed to verify the token

Return type

None

class gitlab.v4.objects.SharedProject(*manager: RESTManager, attrs: Dict[str, Any] *, created_from_list: bool = False, lazy: bool = False*)

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

class gitlab.v4.objects.SharedProjectManager(*gl: Gitlab, parent: RESTObject | None = None*)

Bases: *ListMixin, RESTManager*

Object listing filters

- **archived**
- **visibility**
- **order_by**

- `sort`
- `search`
- `simple`
- `starred`
- `with_issues_enabled`
- `with_merge_requests_enabled`
- `min_access_level`
- `with_custom_attributes`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`class gitlab.v4.objects.SidekiqManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `RESTManager`

Manager for the Sidekiq methods.

This manager doesn't actually manage objects but provides helper function for the sidekiq metrics API.

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`compound_metrics(**kwargs: Any) → Dict[str, Any] | Response`

Return all available metrics and statistics.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the information couldn't be retrieved

Returns

All available Sidekiq metrics and statistics

Return type

`Dict[str, Any] | Response`

`job_stats(**kwargs: Any) → Dict[str, Any] | Response`

Return statistics about the jobs performed.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the information couldn't be retrieved

Returns

Statistics about the Sidekiq jobs performed

Return type

Dict[str, Any] | *Response*

process_metrics(kwargs: Any) → Dict[str, Any] | Response**

Return the registered sidekiq workers.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the information couldn't be retrieved

Returns

Information about the register Sidekiq worker

Return type

Dict[str, Any] | *Response*

queue_metrics(kwargs: Any) → Dict[str, Any] | Response**

Return the registered queues information.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the information couldn't be retrieved

Returns

Information about the Sidekiq queues

Return type

Dict[str, Any] | *Response*

class gitlab.v4.objects.Snippet(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)

Bases: *UserAgentDetailMixin, SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

content(streamed: bool = False, action: Callable[..., Any] | None = None, chunk_size: int = 1024, *, iterator: bool = False, **kwargs: Any) → bytes | Iterator[Any] | None

Return the content of a snippet.

Parameters

- **streamed** (*bool*) – If True the data will be processed by chunks of *chunk_size* and each chunk is passed to *action* for treatment.
- **iterator** (*bool*) – If True directly return the underlying response iterator
- **action** (*Callable[[...], Any]* / *None*) – Callable responsible of dealing with chunk of data
- **chunk_size** (*int*) – Size of each chunk
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the content could not be retrieved

Returns

The snippet content

Return type

bytes | *Iterator[Any]* | *None*

```
class gitlab.v4.objects.SnippetManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- **title**

Optional attributes for object create:

- **description**
- **content**
- **visibility**

Mutually exclusive attributes for object create:

- **files**
- **file_name**

Object update

Optional attributes for object update:

- **title**
- **files**
- **file_name**
- **content**
- **visibility**
- **description**

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

get(*id: str | int, lazy: bool = False, **kwargs: Any*) → *Snippet*

Retrieve a single object.

Parameters

- **id** (*str | int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

Snippet

public(***kwargs: Any*) → *RESTObjectList* | *List[RESTObject]*

List all the public snippets.

Parameters

- **all** – If True the returned object will be a list
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

GitlabListError – If the list could not be retrieved

Returns

A generator for the snippets list

Return type

RESTObjectList | *List[RESTObject]*

class gitlab.v4.objects.StarredProject(*manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False*)

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

class gitlab.v4.objects.StarredProjectManager(*gl: Gitlab, parent: RESTObject | None = None*)

Bases: *ListMixin, RESTManager*

Object listing filters

- **archived**
- **membership**
- **min_access_level**

- `order_by`
- `owned`
- `search`
- `simple`
- `sort`
- `starred`
- `statistics`
- `visibility`
- `with_custom_attributes`
- `with_issues_enabled`
- `with_merge_requests_enabled`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject | None)`

```
class gitlab.v4.objects.Todo(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`mark_as_done(**kwargs: Any) → Dict[str, Any]`

Mark the todo as done.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabTodoError` – If the server failed to perform the request

Returns

A dict with the result

Return type

`Dict[str, Any]`

```
class gitlab.v4.objects.TodoManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `ListMixin, DeleteMixin, RESTManager`

Object listing filters

- action
- author_id
- project_id
- state
- type

Object Creation

Object update

Parameters

- gl ([Gitlab](#))
- parent ([RESTObject](#) / `None`)

`mark_all_as_done(**kwargs: Any) → None`

Mark all the todos as done.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- [GitlabAuthenticationError](#) – If authentication is not correct
- [GitlabTodoError](#) – If the server failed to perform the request

Returns

The number of todos marked done

Return type

`None`

`class gitlab.v4.objects.Topic(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: [SaveMixin](#), [ObjectDeleteMixin](#), [RESTObject](#)

Parameters

- manager ([RESTManager](#))
- attrs (`Dict[str, Any]`)
- created_from_list (`bool`)
- lazy (`bool`)

`class gitlab.v4.objects.TopicManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: [CRUDMixin](#), [RESTManager](#)

Object Creation

Required attributes for object create:

- name

Optional attributes for object create:

- avatar
- description
- title

Object update

Optional attributes for object update:

- `avatar`
- `description`
- `name`

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(id: str | int, lazy: bool = False, **kwargs: Any) → Topic`

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type

`Topic`

`merge(source_topic_id: int | str, target_topic_id: int | str, **kwargs: Any) → Dict[str, Any]`

Merge two topics, assigning all projects to the target topic.

Parameters

- `source_topic_id (int / str)` – ID of source project topic
- `target_topic_id (int / str)` – ID of target project topic
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabTopicMergeError` – If the merge failed

Returns

The merged topic data (*not* a RESTObject)

Return type

`Dict[str, Any]`

```
class gitlab.v4.objects.User(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `SaveMixin`, `ObjectDeleteMixin`, `RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

activate(kwargs: Any) → Dict[str, Any] | Response**

Activate the user.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabActivateError** – If the user could not be activated

Returns

Whether the user status has been changed

Return type

`Dict[str, Any] | Response`

approve(kwargs: Any) → Dict[str, Any] | Response**

Approve a user creation request.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUserApproveError** – If the user could not be activated

Returns

The new object data (*not* a RESTObject)

Return type

`Dict[str, Any] | Response`

ban(kwargs: Any) → Dict[str, Any] | Response**

Ban the user.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabBanError** – If the user could not be banned

Returns

Whether the user has been banned

Return type

Dict[str, Any] | Response

block(kwargs: Any) → bool | None**

Block the user.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabBlockError** – If the user could not be blocked

Returns

Whether the user status has been changed

Return type

bool | None

customattributes: UserCustomAttributeManager

deactivate(kwargs: Any) → Dict[str, Any] | Response**

Deactivate the user.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeactivateError** – If the user could not be deactivated

Returns

Whether the user status has been changed

Return type

Dict[str, Any] | Response

emails: UserEmailManager

events: UserEventManager

follow(kwargs: Any) → Dict[str, Any] | Response**

Follow the user.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabFollowError** – If the user could not be followed

Returns

The new object data (*not* a RESTObject)

Return type

Dict[str, Any] | Response

followers_users: UserFollowersManager

```
following_users: UserFollowingManager
gpgkeys: UserGPGKeyManager
identityproviders: UserIdentityProviderManager
impersonationtokens: UserImpersonationTokenManager
keys: UserKeyManager
memberships: UserMembershipManager
personal_access_tokens: UserPersonalAccessTokenManager
projects: UserProjectManager
reject(**kwargs: Any) → Dict[str, Any] | Response
```

Reject a user creation request.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUserRejectError** – If the user could not be rejected

Returns

The new object data (*not* a RESTObject)

Return type

Dict[str, Any] | Response

```
starred_projects: StarredProjectManager
```

```
status: UserStatusManager
```

```
unban(**kwargs: Any) → Dict[str, Any] | Response
```

Unban the user.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUnbanError** – If the user could not be unbanned

Returns

Whether the user has been unbanned

Return type

Dict[str, Any] | Response

```
unblock(**kwargs: Any) → bool | None
```

Unblock the user.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUnblockError** – If the user could not be unblocked

Returns

Whether the user status has been changed

Return type

bool | None

unfollow(kwargs: Any) → Dict[str, Any] | Response**

Unfollow the user.

Parameters

****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUnfollowError** – If the user could not be followed

Returns

The new object data (*not* a RESTObject)

Return type

Dict[str, Any] | Response

class gitlab.v4.objects.UserActivities(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

class gitlab.v4.objects.UserActivitiesManager(gl: Gitlab, parent: RESTObject | None = None)

Bases: *ListMixin, RESTManager*

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

class gitlab.v4.objects.UserCustomAttribute(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)

Bases: *ObjectDeleteMixin, RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)

- **lazy** (bool)

```
class gitlab.v4.objects.UserCustomAttributeManager(gl: Gitlab, parent: RESTObject | None = None)
    Bases: RetrieveMixin, SetMixin, DeleteMixin, RESTManager
```

Object Creation

Object update

Parameters

- **gl** (Gitlab)
- **parent** (RESTObject / None)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → UserCustomAttribute
```

Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

UserCustomAttribute

```
class gitlab.v4.objects.UserEmail(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:
    bool = False, lazy: bool = False)
```

Bases: ObjectDeleteMixin, RESTObject

Parameters

- **manager** (RESTManager)
- **attrs** (Dict[str, Any])
- **created_from_list** (bool)
- **lazy** (bool)

```
class gitlab.v4.objects.UserEmailManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: RetrieveMixin, CreateMixin, DeleteMixin, RESTManager

Object Creation

Required attributes for object create:

- email

Object update

Parameters

- **gl** (Gitlab)

- **parent** (`RESTObject` / `None`)

`get(id: str | int, lazy: bool = False, **kwargs: Any) → UserEmail`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

`UserEmail`

`class gitlab.v4.objects.UserEvent(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `Event`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

`class gitlab.v4.objects.UserEventManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `EventManager`

Object listing filters

- `action`
- `target_type`
- `before`
- `after`
- `sort`
- `scope`

Object Creation

Object update

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

```
class gitlab.v4.objects.UserGPGKey(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *ObjectDeleteMixin*, *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.UserGPGKeyManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin*, *CreateMixin*, *DeleteMixin*, *RESTManager*

Object Creation

Required attributes for object create:

- key

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → UserGPGKey
```

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

UserGPGKey

```
class gitlab.v4.objects.UserIdentityProviderManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *DeleteMixin*, *RESTManager*

Manager for user identities.

This manager does not actually manage objects but enables functionality for deletion of user identities by provider.

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
class gitlab.v4.objects.UserImpersonationToken(manager: RESTManager, attrs: Dict[str, Any], *,  
                                               created_from_list: bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin, RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

```
class gitlab.v4.objects.UserImpersonationTokenManager(gl: Gitlab, parent: RESTObject | None =  
                                                       None)
```

Bases: `NoUpdateMixin, RESTManager`

Object listing filters

- `state`

Object Creation

Required attributes for object create:

- `name`
- `scopes`

Optional attributes for object create:

- `expires_at`

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → UserImpersonationToken
```

Retrieve a single object.

Parameters

- `id (str / int)` – ID of the object to retrieve
- `lazy (bool)` – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabGetError` – If the server cannot perform the request

Return type`UserImpersonationToken`

```
class gitlab.v4.objects.UserKey(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: `ObjectDeleteMixin, RESTObject`

Parameters

- **manager** (`RESTManager`)
- **attrs** (`Dict[str, Any]`)
- **created_from_list** (`bool`)
- **lazy** (`bool`)

```
class gitlab.v4.objects.UserKeyManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `RetrieveMixin, CreateMixin, DeleteMixin, RESTManager`

Object Creation

Required attributes for object create:

- `title`
- `key`

Object update**Parameters**

- **gl** (`Gitlab`)
- **parent** (`RESTObject / None`)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → UserKey
```

Retrieve a single object.

Parameters

- **id** (`str / int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. `sudo`)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type`UserKey`

```
class gitlab.v4.objects.UserManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: `CRUDMixin, RESTManager`

Object listing filters

- `active`

- blocked
- username
- extern_uid
- provider
- external
- search
- custom_attributes
- status
- two_factor

Object Creation

Optional attributes for object create:

- email
- username
- name
- password
- reset_password
- skype
- linkedin
- twitter
- projects_limit
- extern_uid
- provider
- bio
- admin
- can_create_group
- website_url
- skip_confirmation
- external
- organization
- location
- avatar
- public_email
- private_profile
- color_scheme_id
- theme_id

Object update

Required attributes for object update:

- email
- username
- name

Optional attributes for object update:

- password
- skype
- linkedin
- twitter
- projects_limit
- extern_uid
- provider
- bio
- admin
- can_create_group
- website_url
- skip_reconfirmation
- external
- organization
- location
- avatar
- public_email
- private_profile
- color_scheme_id
- theme_id

Parameters

- **gl** (`Gitlab`)
- **parent** (`RESTObject` / `None`)

`get(id: str | int, lazy: bool = False, **kwargs: Any) → User`

Retrieve a single object.

Parameters

- **id** (`str` / `int`) – ID of the object to retrieve
- **lazy** (`bool`) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (`Any`) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

User

```
class gitlab.v4.objects.UserMembership(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.UserMembershipManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *RetrieveMixin, RESTManager*

Object listing filters

- type

Object Creation

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → UserMembership
```

Retrieve a single object.

Parameters

- **id** (*str* / *int*) – ID of the object to retrieve
- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

UserMembership

```
class gitlab.v4.objects.UserPersonalAccessToken(manager: RESTManager, attrs: Dict[str, Any], *,  
                                              created_from_list: bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.UserPersonalAccessTokenManager(gl: Gitlab, parent: RESTObject | None =  
                                                     None)
```

Bases: *CreateMixin, RESTManager*

Object Creation

Required attributes for object create:

- **name**
- **scopes**

Optional attributes for object create:

- **expires_at**

Object update

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

```
class gitlab.v4.objects.UserProject(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:  
                                         bool = False, lazy: bool = False)
```

Bases: *RESTObject*

Parameters

- **manager** (*RESTManager*)
- **attrs** (*Dict[str, Any]*)
- **created_from_list** (*bool*)
- **lazy** (*bool*)

```
class gitlab.v4.objects.UserProjectManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *ListMixin, CreateMixin, RESTManager*

Object listing filters

- **archived**
- **visibility**
- **order_by**
- **sort**
- **search**
- **simple**

- `owned`
- `membership`
- `starred`
- `statistics`
- `with_issues_enabled`
- `with_merge_requests_enabled`
- `with_custom_attributes`
- `with_programming_language`
- `wiki_checksum_failed`
- `repository_checksum_failed`
- `min_access_level`
- `id_after`
- `id_before`

Object Creation

Required attributes for object create:

- `name`

Optional attributes for object create:

- `default_branch`
- `issues_enabled`
- `wall_enabled`
- `merge_requests_enabled`
- `wiki_enabled`
- `snippets_enabled`
- `squash_option`
- `public`
- `visibility`
- `description`
- `builds_enabled`
- `public_builds`
- `import_url`
- `only_allow_merge_if_build_succeeds`

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`list(**kwargs: Any) → RESTObjectList | List[RESTObject]`

Retrieve a list of objects.

Parameters

- `all` – If True, return all the items, without pagination
- `per_page` – Number of items to retrieve per request
- `page` – ID of the page to return (starts with page 1)
- `iterator` – If set to True and no pagination option is defined, return a generator instead of a list
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The list of objects, or a generator if `iterator` is True

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabListError` – If the server cannot perform the request

Return type

`RESTObjectList | List[RESTObject]`

`class gitlab.v4.objects.UserStatus(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)`

Bases: `RESTObject`

Parameters

- `manager (RESTManager)`
- `attrs (Dict[str, Any])`
- `created_from_list (bool)`
- `lazy (bool)`

`class gitlab.v4.objects.UserStatusManager(gl: Gitlab, parent: RESTObject | None = None)`

Bases: `GetWithoutIdMixin, RESTManager`

Object Creation

Object update

Parameters

- `gl (Gitlab)`
- `parent (RESTObject / None)`

`get(**kwargs: Any) → UserStatus`

Retrieve a single object.

Parameters

- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject

Raises

- `GitlabAuthenticationError` – If authentication is not correct

- **GitlabGetError** – If the server cannot perform the request

Return type

UserStatus

```
class gitlab.v4.objects.Variable(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list:  
                                    bool = False, lazy: bool = False)
```

Bases: *SaveMixin, ObjectDeleteMixin, RESTObject*

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict\[str, Any\]](#))
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

```
class gitlab.v4.objects.VariableManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: *CRUDMixin, RESTManager*

Object Creation

Required attributes for object create:

- key
- value

Optional attributes for object create:

- protected
- variable_type
- masked

Object update

Required attributes for object update:

- key
- value

Optional attributes for object update:

- protected
- variable_type
- masked

Parameters

- **gl** ([Gitlab](#))
- **parent** ([RESTObject](#) / [None](#))

```
get(id: str | int, lazy: bool = False, **kwargs: Any) → Variable
```

Retrieve a single object.

Parameters

- **id** ([str](#) / [int](#)) – ID of the object to retrieve

- **lazy** (*bool*) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type

Variable

Module contents

7.6.3 Submodules

7.6.4 gitlab.base module

```
class gitlab.base.RESTManager(gl: Gitlab, parent: RESTObject | None = None)
```

Bases: object

Base class for CRUD operations on objects.

Derived class must define `_path` and `_obj_cls`.

`_path`: Base URL path on which requests will be sent (e.g. '/projects') `_obj_cls`: The class of objects that will be created

Parameters

- **gl** (*Gitlab*)
- **parent** (*RESTObject* / *None*)

`gitlab: Gitlab`

`property parent_attrs: Dict[str, Any] | None`

`property path: str | None`

```
class gitlab.base.RESTObject(manager: RESTManager, attrs: Dict[str, Any], *, created_from_list: bool = False, lazy: bool = False)
```

Bases: object

Represents an object built from server data.

It holds the attributes known from the server, and the updated attributes in another. This allows smart updates, if the object allows it.

You can redefine `_id_attr` in child classes to specify which attribute must be used as the unique ID. `None` means that the object can be updated without ID in the url.

Likewise, you can define a `_repr_attr` in subclasses to specify which attribute should be added as a human-readable identifier when called in the object's `__repr__()` method.

Parameters

- **manager** ([RESTManager](#))
- **attrs** ([Dict\[str, Any\]](#))
- **created_from_list** ([bool](#))
- **lazy** ([bool](#))

asdict(*, *with_parent_attrs*: [bool](#) = *False*) → [Dict\[str, Any\]](#)

Parameters

with_parent_attrs ([bool](#))

Return type

[Dict\[str, Any\]](#)

property attributes: [Dict\[str, Any\]](#)

property encoded_id: [int | str | None](#)

Ensure that the ID is url-encoded so that it can be safely used in a URL path

get_id() → [int | str | None](#)

Returns the id of the resource.

Return type

[int | str | None](#)

manager: [RESTManager](#)

pformat() → [str](#)

Return type

[str](#)

pprint() → [None](#)

Return type

[None](#)

to_json(*, *with_parent_attrs*: [bool](#) = *False*, ***kwargs*: [Any](#)) → [str](#)

Parameters

- **with_parent_attrs** ([bool](#))
- **kwargs** ([Any](#))

Return type

[str](#)

class gitlab.base.RESTObjectList(*manager*: [RESTManager](#), *obj_cls*: [Type\[RESTObject\]](#), *_list*: [GitlabList](#))

Bases: [object](#)

Generator object representing a list of RESTObject's.

This generator uses the Gitlab pagination system to fetch new data when required.

Note: you should not instantiate such objects, they are returned by calls to RESTManager.list()

Parameters

- **manager** ([RESTManager](#)) – Manager to attach to the created objects
- **obj_cls** ([Type\[RESTObject\]](#)) – Type of objects to create from the json data
- **_list** ([GitlabList](#)) – A GitlabList object

```
property current_page: int
    The current page number.

next() → RESTObject

    Return type
        RESTObject

property next_page: int | None
    The next page number.

    If None, the current page is the last.

property per_page: int | None
    The number of items per page.

property prev_page: int | None
    The previous page number.

    If None, the current page is the first.

property total: int | None
    The total number of items.

property total_pages: int | None
    The total number of pages.
```

7.6.5 gitlab.cli module

```
class gitlab.cli.VerticalHelpFormatter(prog, indent_increment=2, max_help_position=24, width=None)
    Bases: HelpFormatter

    format_help() → str

        Return type
            str

gitlab.cli.cls_to_gitlab_resource(cls: RESTObject) → str

    Parameters
        cls (RESTObject)

    Return type
        str

gitlab.cli.die(msg: str, e: Exception | None = None) → None

    Parameters
        • msg (str)
        • e (Exception / None)

    Return type
        None

gitlab.cli.docs() → ArgumentParser

    Provide a statically generated parser for sphinx only, so we don't need to provide dummy gitlab config for readthe-
    docs.
```

Return type

ArgumentParser

`gitlab.cli.gitlab_resource_to_cls(gitlab_resource: str, namespace: ModuleType) → Type[RESTObject]`

Parameters

- `gitlab_resource (str)`
- `namespace (ModuleType)`

Return type

Type[RESTObject]

`gitlab.cli.main() → None`

Return type

None

`gitlab.cli.register_custom_action(cls_names: str | Tuple[str, ...], mandatory: Tuple[str, ...] = (), optional: Tuple[str, ...] = (), custom_action: str | None = None) → Callable[[__F], __F]`

Parameters

- `cls_names (str | Tuple[str, ...])`
- `mandatory (Tuple[str, ...])`
- `optional (Tuple[str, ...])`
- `custom_action (str | None)`

Return type

Callable[[__F], __F]

7.6.6 gitlab.config module

`exception gitlab.config.ConfigError`

Bases: *Exception*

`exception gitlab.config.GitlabConfigHelperError`

Bases: *ConfigError*

`exception gitlab.config.GitlabConfigMissingError`

Bases: *ConfigError*

`class gitlab.config.GitlabConfigParser(gitlab_id: str | None = None, config_files: List[str] | None = None)`

Bases: *object*

Parameters

- `gitlab_id (str | None)`
- `config_files (List[str] | None)`

`exception gitlab.config.GitlabDataError`

Bases: *ConfigError*

`exception gitlab.config.GitlabIDError`

Bases: *ConfigError*

7.6.7 gitlab.const module

```
class gitlab.const.AccessLevel(value, names=None, *, module=None, qualname=None, type=None,
                                start=1, boundary=None)

Bases: IntEnum

ADMIN: int = 60

DEVELOPER: int = 30

GUEST: int = 10

MAINTAINER: int = 40

MINIMAL_ACCESS: int = 5

NO_ACCESS: int = 0

OWNER: int = 50

REPORTER: int = 20

class gitlab.const.NotificationLevel(value, names=None, *, module=None, qualname=None, type=None,
                                     start=1, boundary=None)

Bases: GitlabEnum

CUSTOM: str = 'custom'

DISABLED: str = 'disabled'

GLOBAL: str = 'global'

MENTION: str = 'mention'

PARTICIPATING: str = 'participating'

WATCH: str = 'watch'

class gitlab.const.SearchScope(value, names=None, *, module=None, qualname=None, type=None,
                               start=1, boundary=None)

Bases: GitlabEnum

BLOBS: str = 'blobs'

COMMITS: str = 'commits'

GLOBAL_SNIPPET_TITLES: str = 'snippet_titles'

ISSUES: str = 'issues'

MERGE_REQUESTS: str = 'merge_requests'

MILESTONES: str = 'milestones'

PROJECTS: str = 'projects'

PROJECT_NOTES: str = 'notes'

USERS: str = 'users'
```

```
WIKI_BLOBS: str = 'wiki_blobs'

class gitlab.const.Visibility(value, names=None, *, module=None, qualname=None, type=None, start=1,
                               boundary=None)

Bases: GitlabEnum

INTERNAL: str = 'internal'

PRIVATE: str = 'private'

PUBLIC: str = 'public'
```

7.6.8 gitlab.exceptions module

```
exception gitlab.exceptions.GitlabActivateError(error_message: str | bytes =", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (str / bytes)
- **response_code** (int / None)
- **response_body** (bytes / None)

Return type

None

```
exception gitlab.exceptions.GitlabAttachFileError(error_message: str | bytes =", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (str / bytes)
- **response_code** (int / None)
- **response_body** (bytes / None)

Return type

None

```
exception gitlab.exceptions.GitlabAuthenticationError(error_message: str | bytes =", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabError*

Parameters

- **error_message** (str / bytes)
- **response_code** (int / None)
- **response_body** (bytes / None)

Return type

None

```
exception gitlab.exceptions.GitlabBanError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabBlockError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabBuildCancelError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabCancelError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabBuildEraseError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabRetryError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabBuildPlayError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabRetryError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabBuildRetryError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabRetryError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabCancelError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabCherryPickError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabCiLintError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabConnectionError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabCreateError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabDeactivateError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabDeleteError(error_message: str | bytes =", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabDeploymentApprovalError(error_message: str | bytes =", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabError(error_message: str | bytes =", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *Exception*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabFollowError(error_message: str | bytes =", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabGetError(error_message: str | bytes =", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabGroupTransferError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabHeadError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabHousekeepingError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabHttpError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabError*

Parameters

- **error_message** (*str* / *bytes*)

- **response_code** (`int` / `None`)
- **response_body** (`bytes` / `None`)

Return type

`None`

exception `gitlab.exceptions.GitlabImportError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: `GitlabOperationError`

Parameters

- **error_message** (`str` / `bytes`)
- **response_code** (`int` / `None`)
- **response_body** (`bytes` / `None`)

Return type

`None`

exception `gitlab.exceptions.GitlabInvitationError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: `GitlabOperationError`

Parameters

- **error_message** (`str` / `bytes`)
- **response_code** (`int` / `None`)
- **response_body** (`bytes` / `None`)

Return type

`None`

exception `gitlab.exceptions.GitlabJobCancelError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: `GitlabCancelError`

Parameters

- **error_message** (`str` / `bytes`)
- **response_code** (`int` / `None`)
- **response_body** (`bytes` / `None`)

Return type

`None`

exception `gitlab.exceptions.GitlabJobEraseError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: `GitlabRetryError`

Parameters

- **error_message** (`str` / `bytes`)
- **response_code** (`int` / `None`)
- **response_body** (`bytes` / `None`)

Return type

None

```
exception gitlab.exceptions.GitlabJobPlayError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabRetryError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabJobRetryError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabRetryError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabLicenseError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabListError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError***Parameters**

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabMRApprovalError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabMRClosedError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabMRForbiddenError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabMROnBuildSuccessError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabMRRebaseError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabMRResetApprovalError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabMarkdownError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabOperationError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabOwnershipError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabParsingError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabPipelineCancelError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabCancelError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabPipelinePlayError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabRetryError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabPipelineRetryError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabRetryError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabProjectDeployKeyError(error_message: str | bytes = "",  
                                                       response_code: int | None = None,  
                                                       response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabPromoteError(error_message: str | bytes = "", response_code: int |  
                                               None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabProtectError(error_message: str | bytes = "", response_code: int |  
                                               None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabRenderError(error_message: str | bytes = "", response_code: int |  
                                               None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabRepairError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (str / bytes)
- **response_code** (int / None)
- **response_body** (bytes / None)

Return type

None

```
exception gitlab.exceptions.GitlabRestoreError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (str / bytes)
- **response_code** (int / None)
- **response_body** (bytes / None)

Return type

None

```
exception gitlab.exceptions.GitlabRetryError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (str / bytes)
- **response_code** (int / None)
- **response_body** (bytes / None)

Return type

None

```
exception gitlab.exceptions.GitlabRevertError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (str / bytes)
- **response_code** (int / None)
- **response_body** (bytes / None)

Return type

None

```
exception gitlab.exceptions.GitlabRotateError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabSearchError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabSetError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabStopError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabSubscribeError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabTimeTrackingError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabTodoError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabTopicMergeError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabTransferProjectError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: *GitlabOperationError*

Parameters

- **error_message** (*str* / *bytes*)

- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

exception `gitlab.exceptions.GitlabUnbanError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: `GitlabOperationError`

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

exception `gitlab.exceptions.GitlabUnblockError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: `GitlabOperationError`

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

exception `gitlab.exceptions.GitlabUnfollowError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: `GitlabOperationError`

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

exception `gitlab.exceptions.GitlabUnsubscribeError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)`

Bases: `GitlabOperationError`

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabUpdateError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabUploadError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabUserApproveError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabUserRejectError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.GitlabVerifyError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: [GitlabOperationError](#)

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

```
exception gitlab.exceptions.RedirectError(error_message: str | bytes = "", response_code: int | None = None, response_body: bytes | None = None)
```

Bases: [GitlabError](#)

Parameters

- **error_message** (*str* / *bytes*)
- **response_code** (*int* / *None*)
- **response_body** (*bytes* / *None*)

Return type

None

7.6.9 gitlab.mixins module

```
class gitlab.mixins.AccessRequestMixin
```

Bases: *object*

approve(access_level: *int* = 30, **kwargs: *Any*) → *None*

Approve an access request.

Parameters

- **access_level** (*int*) – The access level for the user
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the server fails to perform the request

Return type

None

manager: [RESTManager](#)

```
class gitlab.mixins.BadgeRenderMixin
```

Bases: *object*

render(link_url: *str*, image_url: *str*, **kwargs: *Any*) → Dict[*str*, *Any*]

Preview link_url and image_url after interpolation.

Parameters

- **link_url** (*str*) – URL of the badge link
- **image_url** (*str*) – URL of the badge image
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabRenderError** – If the rendering failed

Returns

The rendering properties

Return type

Dict[*str*, *Any*]

class `gitlab.mixins.CRUDMixin`

Bases: *GetMixin*, *ListMixin*, *CreateMixin*, *UpdateMixin*, *DeleteMixin*

gitlab: `Gitlab`

class `gitlab.mixins.CreateMixin`

Bases: *object*

create(*data*: *Dict*[*str*, *Any*] | *None* = *None*, ****kwargs**: *Any*) → *RESTObject*

Create a new object.

Parameters

- **data** (*Dict*[*str*, *Any*] / *None*) – parameters to send to the server to create the resource
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Returns

A new instance of the managed object class built with
the data sent by the server

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabCreateError** – If the server cannot perform the request

Return type

RESTObject

gitlab: `Gitlab`

class `gitlab.mixins.DeleteMixin`

Bases: *object*

delete(*id*: *int* | *str* | *None* = *None*, ****kwargs**: *Any*) → *None*

Delete an object on the server.

Parameters

- **id** (*int* / *str* / *None*) – ID of the object to delete
- ****kwargs** (*Any*) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabDeleteError** – If the server cannot perform the request

Return type

None

gitlab: *Gitlab***class** gitlab.mixins.DownloadMixin

Bases: object

download(streamed: bool = False, action: Callable[[bytes], None] | None = None, chunk_size: int = 1024, *, iterator: bool = False, **kwargs: Any) → bytes | Iterator[*Any*] | None

Download the archive of a resource export.

Parameters

- **streamed** (bool) – If True the data will be processed by chunks of *chunk_size* and each chunk is passed to *action* for treatment
- **iterator** (bool) – If True directly return the underlying response iterator
- **action** (Callable[[bytes], None] / None) – Callable responsible of dealing with chunk of data
- **chunk_size** (int) – Size of each chunk
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server failed to perform the request

Returns

The blob content if streamed is False, None otherwise

Return typebytes | Iterator[*Any*] | None**manager:** *RESTManager***class** gitlab.mixins.GetMixin

Bases: HeadMixin, object

get(id: str | int, lazy: bool = False, **kwargs: Any) → RESTObject

Retrieve a single object.

Parameters

- **id** (str / int) – ID of the object to retrieve
- **lazy** (bool) – If True, don't request the server, but create a shallow object giving access to the managers. This is useful if you want to avoid useless calls to the API.
- ****kwargs** (Any) – Extra options to send to the server (e.g. sudo)

Returns

The generated RESTObject.

Raises

- **GitlabAuthenticationError** – If authentication is not correct

- **GitlabGetError** – If the server cannot perform the request

Return type

`RESTObject`

`gitlab: Gitlab`

`class gitlab.mixins.GetWithoutIdMixin`

Bases: `HeadMixin, object`

`get(**kwargs: Any) → RESTObject`

Retrieve a single object.

Parameters

- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The generated `RESTObject`

Raises

- **GitlabAuthenticationError** – If authentication is not correct

- **GitlabGetError** – If the server cannot perform the request

Return type

`RESTObject`

`gitlab: Gitlab`

`class gitlab.mixins.ListMixin`

Bases: `HeadMixin, object`

`gitlab: Gitlab`

`list(**kwargs: Any) → RESTObjectList | List[RESTObject]`

Retrieve a list of objects.

Parameters

- **all** – If True, return all the items, without pagination
- **per_page** – Number of items to retrieve per request
- **page** – ID of the page to return (starts with page 1)
- **iterator** – If set to True and no pagination option is defined, return a generator instead of a list
- ****kwargs (Any)** – Extra options to send to the server (e.g. sudo)

Returns

The list of objects, or a generator if *iterator* is True

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabListError** – If the server cannot perform the request

Return type

`RESTObjectList | List[RESTObject]`

`class gitlab.mixins.NoUpdateMixin`

Bases: `GetMixin, ListMixin, CreateMixin, DeleteMixin`

gitlab: *Gitlab*

class `gitlab.mixins.ObjectDeleteMixin`

Bases: `object`

Mixin for RESTObject's that can be deleted.

delete(kwargs: Any)** → None

Delete the object from the server.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabDeleteError` – If the server cannot perform the request

Return type

`None`

manager: *RESTManager*

class `gitlab.mixins.ParticipantsMixin`

Bases: `object`

manager: *RESTManager*

participants(kwargs: Any)** → `Dict[str, Any]`

List the participants.

Parameters

- `all` – If True, return all the items, without pagination
- `per_page` – Number of items to retrieve per request
- `page` – ID of the page to return (starts with page 1)
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabListError` – If the list could not be retrieved

Returns

The list of participants

Return type

`Dict[str, Any]`

class `gitlab.mixins.RefreshMixin`

Bases: `object`

manager: *RESTManager*

refresh(kwargs: Any)** → None

Refresh a single object from server.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Return type

None

Returns None (updates the object)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Parameters

kwargs ([Any](#))

Return type

None

class gitlab.mixins.RetrieveMixin

Bases: [ListMixin](#), [GetMixin](#)

gitlab: [Gitlab](#)

class gitlab.mixins.SaveMixin

Bases: [object](#)

Mixin for RESTObject's that can be updated.

manager: [RESTManager](#)

save(kwargs: Any) → Dict[str, Any] | None**

Save the changes made to the object to the server.

The object is updated to match what the server returns.

Parameters

****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Returns

The new object data (*not* a RESTObject)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the server cannot perform the request

Return type

Dict[str, [Any](#)] | None

class gitlab.mixins.SetMixin

Bases: [object](#)

gitlab: [Gitlab](#)

set(key: str, value: str, **kwargs: Any) → RESTObject

Create or update the object.

Parameters

- **key** (*str*) – The key of the object to create/update
- **value** (*str*) – The value to set for the object
- ****kwargs** ([Any](#)) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabSetError** – If an error occurred

Returns

The created/updated attribute

Return type

`RESTObject`

```
class gitlab.mixins.SubscribableMixin
```

Bases: `object`

manager: `RESTManager`

subscribe(kwargs: Any) → None**

Subscribe to the object notifications.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabSubscribeError** – If the subscription cannot be done

Return type

`None`

unsubscribe(kwargs: Any) → None**

Unsubscribe from the object notifications.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUnsubscribeError** – If the unsubscription cannot be done

Return type

`None`

```
class gitlab.mixins.TimeTrackingMixin
```

Bases: `object`

add_spent_time(duration: str, **kwargs: Any) → Dict[str, Any]

Add time spent working on the object.

Parameters

- **duration (str)** – Duration in human format (e.g. 3h30)
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabTimeTrackingError** – If the time tracking update cannot be done

Return type

`Dict[str, Any]`

`manager: RESTManager`

`reset_spent_time(**kwargs: Any) → Dict[str, Any]`

Resets the time spent working on the object.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabTimeTrackingError` – If the time tracking update cannot be done

Return type

`Dict[str, Any]`

`reset_time_estimate(**kwargs: Any) → Dict[str, Any]`

Resets estimated time for the object to 0 seconds.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabTimeTrackingError` – If the time tracking update cannot be done

Return type

`Dict[str, Any]`

`time_estimate(duration: str, **kwargs: Any) → Dict[str, Any]`

Set an estimated time of work for the object.

Parameters

- `duration (str)` – Duration in human format (e.g. 3h30)
- `**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabTimeTrackingError` – If the time tracking update cannot be done

Return type

`Dict[str, Any]`

`time_stats(**kwargs: Any) → Dict[str, Any]`

Get time stats for the object.

Parameters

`**kwargs (Any)` – Extra options to send to the server (e.g. sudo)

Raises

- `GitlabAuthenticationError` – If authentication is not correct
- `GitlabTimeTrackingError` – If the time tracking update cannot be done

Return type

`Dict[str, Any]`

```
class gitlab.mixins.TodoMixin
```

Bases: object

manager: [RESTManager](#)

todo(kwargs: Any) → None**

Create a todo associated to the object.

Parameters

**kwargs (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabTodoError** – If the todo cannot be set

Return type

None

```
class gitlab.mixins.UpdateMixin
```

Bases: object

gitlab: [Gitlab](#)

update(id: int | str | None = None, new_data: Dict[str, Any] | None = None, **kwargs: Any) → Dict[str, Any]

Update an object on the server.

Parameters

- **id (int / str / None)** – ID of the object to update (can be None if not required)
- **new_data (Dict[str, Any] / None)** – the update data for the object
- **kwargs (Any) – Extra options to send to the server (e.g. sudo)

Returns

The new object data (*not* a RESTObject)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabUpdateError** – If the server cannot perform the request

Return type

Dict[str, Any]

```
class gitlab.mixins.UserAgentDetailMixin
```

Bases: object

manager: [RESTManager](#)

user_agent_detail(kwargs: Any) → Dict[str, Any]**

Get the user agent detail.

Parameters

**kwargs (Any) – Extra options to send to the server (e.g. sudo)

Raises

- **GitlabAuthenticationError** – If authentication is not correct
- **GitlabGetError** – If the server cannot perform the request

Return type
Dict[str, Any]

7.6.10 gitlab.utils module

class `gitlab.utils.EncodedId`(*value: str | int | EncodedId*)

Bases: `str`

A custom `str` class that will return the URL-encoded value of the string.

- Using it recursively will only url-encode the value once.
- Can accept either `str` or `int` as input value.
- Can be used in an f-string and output the URL-encoded string.

Reference to documentation on why this is necessary.

See:

<https://docs.gitlab.com/ee/api/index.html#namespaced-path-encoding>
<https://docs.gitlab.com/ee/api/index.html#path-parameters>

Parameters

`value(str | int | EncodedId)`

Return type

`EncodedId`

class `gitlab.utils.MaskingFormatter`(*fmt: str | None = '%(levelname)s:%(name)s:%(message)s', datefmt: str | None = None, style: Literal['%', '{', '\$'] = '%', validate: bool = True, masked: str | None = None*)

Bases: `Formatter`

A logging formatter that can mask credentials

Parameters

- `fmt(str | None)`
- `datefmt(str | None)`
- `style(Literal['%', '{', '$'])`
- `validate(bool)`
- `masked(str | None)`

`format(record: LogRecord) → str`

Format the specified record as text.

The record's attribute dictionary is used as the operand to a string formatting operation which yields the returned string. Before formatting the dictionary, a couple of preparatory steps are carried out. The message attribute of the record is computed using `LogRecord.getMessage()`. If the formatting string uses the time (as determined by a call to `usesTime()`, `formatTime()` is called to format the event time. If there is exception information, it is formatted using `formatException()` and appended to the message.

Parameters

`record(LogRecord)`

Return type
str

`gitlab.utils.copy_dict(*, src: Dict[str, Any], dest: Dict[str, Any]) → None`

Parameters

- **src** (`Dict[str, Any]`)
- **dest** (`Dict[str, Any]`)

Return type
None

`gitlab.utils.get_content_type(content_type: str | None) → str`

Parameters
`content_type (str | None)`

Return type
str

`gitlab.utils.remove_none_from_dict(data: Dict[str, Any]) → Dict[str, Any]`

Parameters
`data (Dict[str, Any])`

Return type
`Dict[str, Any]`

`gitlab.utils.response_content(response: Response, streamed: bool, action: Callable[[bytes], None] | None, chunk_size: int, *, iterator: bool) → bytes | Iterator[Any] | None`

Parameters

- **response** (`Response`)
- **streamed** (`bool`)
- **action** (`Callable[[bytes], None] | None`)
- **chunk_size** (`int`)
- **iterator** (`bool`)

Return type
`bytes | Iterator[Any] | None`

`gitlab.utils.warn(message: str, *, category: Type[Warning] | None = None, source: Any | None = None) → None`

This `warnings.warn` wrapper function attempts to show the location causing the warning in the user code that called the library.

It does this by walking up the stack trace to find the first frame located outside the `gitlab/` directory. This is helpful to users as it shows them their code that is causing the warning.

Parameters

- **message** (`str`)
- **category** (`Type[Warning] | None`)
- **source** (`Any | None`)

Return type
None

7.7 CLI reference (gitlab command)

Warning: The following is a complete, auto-generated list of subcommands available via the `gitlab` command-line tool. Some of the actions may currently not work as expected or lack functionality available via the API.

Please see the existing [list of CLI related issues](#), or open a new one if it is not already listed there.

7.7.1 gitlab

GitLab API Command Line Interface

```
usage: gitlab [-h] [--version] [-v] [-d] [-c CONFIG_FILE] [-g GITLAB]
              [-o {json,legacy,yaml}] [-f FIELDS] [--server-url SERVER_URL]
              [--ssl-verify SSL_VERIFY | --no-ssl-verify] [--timeout TIMEOUT]
              [--api-version API_VERSION] [--per-page PER_PAGE]
              [--pagination PAGINATION] [--order-by ORDER_BY]
              [--user-agent USER_AGENT]
              [--private-token PRIVATE_TOKEN | --oauth-token OAUTH_TOKEN | --job-token_
→JOB_TOKEN]
              [--skip-login]

application
application-appearance
application-settings
application-statistics
audit-event
broadcast-message
bulk-import
bulk-import-all-entity
bulk-import-entity
ci-lint
current-user
current-user-email
current-user-gpg-key
current-user-key
current-user-runner
current-user-status
deploy-key
deploy-token
dockerfile
event
feature
generic-package
geo-node
gitignore
gitlabciyml
group
group-access-request
group-access-token
group-audit-event
group-badge
group-billable-member
```

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```
group-billable-member-membership
group-board
group-board-list
group-cluster
group-custom-attribute
group-deploy-token
group-descendant-group
group-epic
group-epic-award-emoji
group-epic-discussion-note
group-epic-issue
group-epic-note
group-epic-note-award-emoji
group-epic-resource-label-event
group-export
group-hook
group-import
group-invitation
group-issue
group-issues-statistics
group-iteration
group-ldap-group-link
group-label
group-member
group-member-all
group-merge-request
group-milestone
group-notification-settings
group-package
group-project
group-push-rules
group-runner
group-saml-group-link
group-subgroup
group-variable
group-wiki
hook
issue
issues-statistics
key
ldap-group
license
merge-request
namespace
notification-settings
pages-domain
personal-access-token
project
project-access-request
project-access-token
project-additional-statistics
project-approval
```

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```
project-approval-rule
project-artifact
project-audit-event
project-badge
project-board
project-board-list
project-branch
project-ci-lint
project-cluster
project-commit
project-commit-comment
project-commit-discussion
project-commit-discussion-note
project-commit-status
project-custom-attribute
project-deploy-token
project-deployment
project-deployment-merge-request
project-environment
project-event
project-export
project-file
project-fork
project-hook
project-import
project-integration
project-invitation
project-issue
project-issue-award-emoji
project-issue-discussion
project-issue-discussion-note
project-issue-link
project-issue-note
project-issue-note-award-emoji
project-issue-resource-iteration-event
project-issue-resource-label-event
project-issue-resource-milestone-event
project-issue-resource-state-event
project-issue-resource-weight-event
project-issues-statistics
project-job
project-job-token-scope
project-key
project-label
project-member
project-member-all
project-merge-request
project-merge-request-approval
project-merge-request-approval-rule
project-merge-request-approval-state
project-merge-request-award-emoji
project-merge-request-diff
```

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```
project-merge-request-discussion
project-merge-request-discussion-note
project-merge-request-draft-note
project-merge-request-note
project-merge-request-note-award-emoji
project-merge-request-pipeline
project-merge-request-resource-label-event
project-merge-request-resource-milestone-event
project-merge-request-resource-state-event
project-merge-request-reviewer-detail
project-merge-train
project-milestone
project-note
project-notification-settings
project-package
project-package-file
project-package-pipeline
project-pages-domain
project-pipeline
project-pipeline-bridge
project-pipeline-job
project-pipeline-schedule
project-pipeline-schedule-pipeline
project-pipeline-schedule-variable
project-pipeline-test-report
project-pipeline-test-report-summary
project-pipeline-variable
project-protected-branch
project-protected-environment
project-protected-tag
project-push-rules
project-registry-repository
project-registry-tag
project-release
project-release-link
project-remote-mirror
project-resource-group
project-resource-group-upcoming-job
project-runner
project-secure-file
project-service
project-snippet
project-snippet-award-emoji
project-snippet-discussion
project-snippet-discussion-note
project-snippet-note
project-snippet-note-award-emoji
project-storage
project-tag
project-trigger
project-user
project-variable
```

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```
project-wiki
registry-repository
runner
runner-all
runner-job
shared-project
snippet
starred-project
todo
topic
user
user-activities
user-custom-attribute
user-email
user-event
user-gpg-key
user-impersonation-token
user-key
user-membership
user-personal-access-token
user-project
user-status
variable
```

...

-h, --help

show this help message and exit

--version

Display the version.

-v, --verbose, --fancy

Verbose mode (legacy format only) [env var: GITLAB_VERBOSE]

-d, --debug

Debug mode (display HTTP requests) [env var: GITLAB_DEBUG]

-c <config_file>, --config-file <config_file>

Configuration file to use. Can be used multiple times. [env var: PYTHON_GITLAB_CFG]

-g <gitlab>, --gitlab <gitlab>

Which configuration section should be used. If not defined, the default selection will be used.

-o {json,legacy,yaml}, --output {json,legacy,yaml}

Output format (v4 only): json|legacy|yaml

-f <fields>, --fields <fields>

Fields to display in the output (comma separated). Not used with legacy output

--server-url <server_url>

GitLab server URL [env var: GITLAB_URL]

--ssl-verify <ssl_verify>

Path to a CA_BUNDLE file or directory with certificates of trusted CAs. [env var: GITLAB_SSL_VERIFY]

```
--no-ssl-verify
    Disable SSL verification

--timeout <timeout>
    Timeout to use for requests to the GitLab server. [env var: GITLAB_TIMEOUT]

--api-version <api_version>
    GitLab API version [env var: GITLAB_API_VERSION]

--per-page <per_page>
    Number of entries to return per page in the response. [env var: GITLAB_PER_PAGE]

--pagination <pagination>
    Whether to use keyset or offset pagination [env var: GITLAB_PAGINATION]

--order-by <order_by>
    Set order_by globally [env var: GITLAB_ORDER_BY]

--user-agent <user_agent>
    The user agent to send to GitLab with the HTTP request. [env var: GITLAB_USER_AGENT]

--private-token <private_token>
    GitLab private access token [env var: GITLAB_PRIVATE_TOKEN]

--oauth-token <oauth_token>
    GitLab OAuth token [env var: GITLAB_OAUTH_TOKEN]

--job-token <job_token>
    GitLab CI job token [env var: CI_JOB_TOKEN]

--skip-login
    Skip initial authenticated API call to the current user endpoint. This may be useful when invoking the CLI in scripts. [env var: GITLAB_SKIP_LOGIN]
```

gitlab application

```
usage: gitlab application [-h] {list,create,delete} ...
```

-h, --help
show this help message and exit

gitlab application create

```
usage: gitlab application create [-h] [--sudo SUDO] --name NAME --redirect-uri
                                 REDIRECT_URI --scopes SCOPES
                                 [--confidential CONFIDENTIAL]
```

-h, --help
show this help message and exit

--sudo <sudo>

--name <name>

```
--redirect-uri <redirect_uri>
--scopes <scopes>
--confidential <confidential>
```

gitlab application delete

```
usage: gitlab application delete [-h] [--sudo SUDO] --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--id <id>
```

gitlab application list

```
usage: gitlab application list [-h] [--sudo SUDO] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--page <page>
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab application-appearance

```
usage: gitlab application-appearance [-h] {get,update} ...
```

```
-h, --help
    show this help message and exit
```

gitlab application-appearance get

```
usage: gitlab application-appearance get [-h] [--sudo SUDO]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
```

gitlab application-appearance update

```
usage: gitlab application-appearance update [-h] [--sudo SUDO] [--title TITLE]
                                             [--description DESCRIPTION]
                                             [--logo LOGO]
                                             [--header-logo HEADER_LOGO]
                                             [--favicon FAVICON]
                                             [--new-project-guidelines NEW_PROJECT_
                                             ↵GUIDELINES]
                                             [--header-message HEADER_MESSAGE]
                                             [--footer-message FOOTER_MESSAGE]
                                             [--message-background-color MESSAGE_
                                             ↵BACKGROUND_COLOR]
                                             [--message-font-color MESSAGE_FONT_COLOR]
                                             [--email-header-and-footer-enabled EMAIL_
                                             ↵HEADER_AND_FOOTER_ENABLED]
```

-h, --help

show this help message and exit

--sudo <sudo>

--title <title>

--description <description>

--logo <logo>

--header-logo <header_logo>

--favicon <favicon>

--new-project-guidelines <new_project_guidelines>

--header-message <header_message>

--footer-message <footer_message>

--message-background-color <message_background_color>

--message-font-color <message_font_color>

--email-header-and-footer-enabled <email_header_and_footer_enabled>

gitlab application-settings

```
usage: gitlab application-settings [-h] {get,update} ...
```

-h, --help

show this help message and exit

gitlab application-settings get

```
usage: gitlab application-settings get [-h] [--sudo SUDO]
```

-h, --help

show this help message and exit

--sudo <sudo>

gitlab application-settings update

```
usage: gitlab application-settings update [-h] [--sudo SUDO] [--id ID]
                                         [--default-projects-limit DEFAULT_PROJECTS_
                                         ↵LIMIT]
                                         [--signup-enabled SIGNUP_ENABLED]
                                         [--password-authentication-enabled-for-web_
                                         ↵PASSWORD_AUTHENTICATION_ENABLED_FOR_WEB]
                                         [--gravatar-enabled GRAVATAR_ENABLED]
                                         [--sign-in-text SIGN_IN_TEXT]
                                         [--created-at CREATED_AT]
                                         [--updated-at UPDATED_AT]
                                         [--home-page-url HOME_PAGE_URL]
                                         [--default-branch-protection DEFAULT_BRANCH_
                                         ↵PROTECTION]
                                         [--restricted-visibility-levels RESTRICTED_
                                         ↵VISIBILITY_LEVELS]
                                         [--max-attachment-size MAX_ATTACHMENT_SIZE]
                                         [--session-expire-delay SESSION_EXPIRE_DELAY]
                                         [--default-project-visibility DEFAULT_PROJECT_
                                         ↵VISIBILITY]
                                         [--default-snippet-visibility DEFAULT_SNIPPET_
                                         ↵VISIBILITY]
                                         [--default-group-visibility DEFAULT_GROUP_
                                         ↵VISIBILITY]
                                         [--outbound-local-requests-whitelist OUTBOUND_
                                         ↵LOCAL_REQUESTS_WHITELIST]
                                         [--disabled-oauth-sign-in-sources DISABLED_
                                         ↵OAUTH_SIGN_IN_SOURCES]
                                         [--domain-whitelist DOMAIN_WHITELIST]
                                         [--domain-blacklist-enabled DOMAIN_BLACKLIST_
                                         ↵ENABLED]
                                         [--domain-blacklist DOMAIN_BLACKLIST]
                                         [--domain-allowlist DOMAIN_ALLOWLIST]
                                         [--domain-denylist-enabled DOMAIN_DENYLIST_
                                         ↵ENABLED]
                                         [--domain-denylist DOMAIN_DENYLIST]
                                         [--external-authorization-service-enabled_
                                         ↵EXTERNAL_AUTHORIZATION_SERVICE_ENABLED]
                                         [--external-authorization-service-url EXTERNAL_
                                         ↵AUTHORIZATION_SERVICE_URL]
                                         [--external-authorization-service-default-
                                         ↵label EXTERNAL_AUTHORIZATION_SERVICE_DEFAULT_LABEL]
```

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```

--EXTERNAL_AUTHORIZATION_SERVICE_TIMEOUT]
[--external-authorization-service-timeout]

--APPLICATIONS]
[--import-sources IMPORT_SOURCES]
[--user-oauth-applications USER_OAUTH_

--CONTAINER_REGISTRY_TOKEN_EXPIRE_DELAY]
[--repository-storages REPOSITORY_STORAGES]
[--plantuml-enabled PLANTUML_ENABLED]
[--plantuml-url PLANTUML_URL]
[--terminal-max-session-time TERMINAL_MAX_

--SESSION_TIME]
[--polling-interval-multiplier POLLING_

--INTERVAL_MULTIPLIER]
[--rsa-key-restriction RSA_KEY_RESTRICTION]
[--dsa-key-restriction DSA_KEY_RESTRICTION]
[--ecdsa-key-restriction ECDSA_KEY_RESTRICTION]
[--ed25519-key-restriction ED25519_KEY_

--RESTRICTION]
[--first-day-of-week FIRST_DAY_OF_WEEK]
[--enforce-terms ENFORCE_TERMS]
[--terms TERMS]
[--performance-bar-allowed-group-id]

--PERFORMANCE_BAR_ALLOWED_GROUP_ID]
[--instance-statistics-visibility-private]

--INSTANCE_STATISTICS_VISIBILITY_PRIVATE]
[--user-show-add-ssh-key-message USER_SHOW_ADD_

--SSH_KEY_MESSAGE]
[--file-template-project-id FILE_TEMPLATE_

--PROJECT_ID]
[--local-markdown-version LOCAL_MARKDOWN_

--VERSION]
[--asset-proxy-enabled ASSET_PROXY_ENABLED]
[--asset-proxy-url ASSET_PROXY_URL]
[--asset-proxy-whitelist ASSET_PROXY_WHITELIST]
[--asset-proxy-allowlist ASSET_PROXY_ALLOWLIST]
[--geo-node-allowed-ips GEO_NODE_ALLOWED_IPS]
[--allow-local-requests-from-hooks-and-
--services ALLOW_LOCAL_REQUESTS_FROM_HOOKS_AND_SERVICES]
[--allow-local-requests-from-web-hooks-and-
--services ALLOW_LOCAL_REQUESTS_FROM_WEB_HOOKS_AND_SERVICES]
[--allow-local-requests-from-system-hooks_
--ALLOW_LOCAL_REQUESTS_FROM_SYSTEM_HOOKS]

```

-h, --help

show this help message and exit

--sudo <sudo>**--id <id>****--default-projects-limit <default_projects_limit>**

```
--signup-enabled <signup_enabled>
--password-authentication-enabled-for-web <password_authentication_enabled_for_web>
--gravatar-enabled <gravatar_enabled>
--sign-in-text <sign_in_text>
--created-at <created_at>
--updated-at <updated_at>
--home-page-url <home_page_url>
--default-branch-protection <default_branch_protection>
--restricted-visibility-levels <restricted_visibility_levels>
--max-attachment-size <max_attachment_size>
--session-expire-delay <session_expire_delay>
--default-projectVisibility <default_project_visibility>
--default-snippet-visibility <default_snippet_visibility>
--default-group-visibility <default_group_visibility>
--outbound-local-requests-whitelist <outbound_local_requests_whitelist>
--disabled-oauth-sign-in-sources <disabled_oauth_sign_in_sources>
--domain-whitelist <domain_whitelist>
--domain-blacklist-enabled <domain_blacklist_enabled>
--domain-blacklist <domain_blacklist>
--domain-allowlist <domain_allowlist>
--domain-denylist-enabled <domain_denylist_enabled>
--domain-denylist <domain_denylist>
--external-authorization-service-enabled <external_authorization_service_enabled>
--external-authorization-service-url <external_authorization_service_url>
--external-authorization-service-default-label <external_authorization_service_default_label>
--external-authorization-service-timeout <external_authorization_service_timeout>
--import-sources <import_sources>
--user-oauth-applications <user_oauth_applications>
--after-sign-out-path <after_sign_out_path>
--container-registry-token-expire-delay <container_registry_token_expire_delay>
--repository-storages <repository_storages>
```

```
--plantuml-enabled <plantuml_enabled>
--plantuml-url <plantuml_url>
--terminal-max-session-time <terminal_max_session_time>
--polling-interval-multiplier <polling_interval_multiplier>
--rsa-key-restriction <rsa_key_restriction>
--dsa-key-restriction <dsa_key_restriction>
--ecdsa-key-restriction <ecdsa_key_restriction>
--ed25519-key-restriction <ed25519_key_restriction>
--first-day-of-week <first_day_of_week>
--enforce-terms <enforce_terms>
--terms <terms>
--performance-bar-allowed-group-id <performance_bar_allowed_group_id>
--instance-statistics-visibility-private <instance_statistics_visibility_private>
--user-show-add-ssh-key-message <user_show_add_ssh_key_message>
--file-template-project-id <file_template_project_id>
--local-markdown-version <local_markdown_version>
--asset-proxy-enabled <asset_proxy_enabled>
--asset-proxy-url <asset_proxy_url>
--asset-proxy-whitelist <asset_proxy_whitelist>
--asset-proxy-allowlist <asset_proxy_allowlist>
--geo-node-allowed-ips <geo_node_allowed_ips>
--allow-local-requests-from-hooks-and-services <allow_local_requests_from_hooks_and_services>
--allow-local-requests-from-web-hooks-and-services <allow_local_requests_from_web_hooks_and_services>
--allow-local-requests-from-system-hooks <allow_local_requests_from_system_hooks>
```

gitlab application-statistics

```
usage: gitlab application-statistics [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab application-statistics get

```
usage: gitlab application-statistics get [-h] [--sudo SUDO]
```

-h, --help

show this help message and exit

--sudo <sudo>

gitlab audit-event

```
usage: gitlab audit-event [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab audit-event get

```
usage: gitlab audit-event get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab audit-event list

```
usage: gitlab audit-event list [-h] [--sudo SUDO]
                               [--created-after CREATED_AFTER]
                               [--created-before CREATED_BEFORE]
                               [--entity-type ENTITY_TYPE]
                               [--entity-id ENTITY_ID] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--created-after <created_after>

--created-before <created_before>

--entity-type <entity_type>

--entity-id <entity_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab broadcast-message

```
usage: gitlab broadcast-message [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab broadcast-message create

```
usage: gitlab broadcast-message create [-h] [--sudo SUDO] --message MESSAGE
                                      [--starts-at STARTS_AT]
                                      [--ends-at ENDS_AT] [--color COLOR]
                                      [--font FONT]
                                      [--target-access-levels TARGET_ACCESS_LEVELS]
```

-h, --help

show this help message and exit

--sudo <sudo>**--message <message>****--starts-at <starts_at>****--ends-at <ends_at>****--color <color>****--font ****--target-access-levels <target_access_levels>****gitlab broadcast-message delete**

```
usage: gitlab broadcast-message delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>**--id <id>**

gitlab broadcast-message get

```
usage: gitlab broadcast-message get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab broadcast-message list

```
usage: gitlab broadcast-message list [-h] [--sudo SUDO] [--page PAGE]
                                     [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab broadcast-message update

```
usage: gitlab broadcast-message update [-h] [--sudo SUDO] --id ID
                                       [--message MESSAGE]
                                       [--starts-at STARTS_AT]
                                       [--ends-at ENDS_AT] [--color COLOR]
                                       [--font FONT]
                                       [--target-access-levels TARGET_ACCESS_LEVELS]
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

--message <message>

--starts-at <starts_at>

--ends-at <ends_at>

--color <color>

**--font **

--target-access-levels <target_access_levels>

gitlab bulk-import

```
usage: gitlab bulk-import [-h] {list,get,create} ...
```

-h, --help

show this help message and exit

gitlab bulk-import create

```
usage: gitlab bulk-import create [-h] [--sudo SUDO] --configuration
                                 CONFIGURATION --entities ENTITIES
```

-h, --help

show this help message and exit

--sudo <sudo>

--configuration <configuration>

--entities <entities>

gitlab bulk-import get

```
usage: gitlab bulk-import get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab bulk-import list

```
usage: gitlab bulk-import list [-h] [--sudo SUDO] [--sort SORT]
                               [--status STATUS] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--sort <sort>

--status <status>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab bulk-import-all-entity

```
usage: gitlab bulk-import-all-entity [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab bulk-import-all-entity list

```
usage: gitlab bulk-import-all-entity list [-h] [--sudo SUDO] [--sort SORT]
                                         [--status STATUS] [--page PAGE]
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--sort <sort>

--status <status>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab bulk-import-entity

```
usage: gitlab bulk-import-entity [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab bulk-import-entity get

```
usage: gitlab bulk-import-entity get [-h] [--sudo SUDO] --bulk-import-id
                                     BULK_IMPORT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--bulk-import-id <bulk_import_id>

--id <id>

gitlab bulk-import-entity list

```
usage: gitlab bulk-import-entity list [-h] [--sudo SUDO] --bulk-import-id
                                     BULK_IMPORT_ID [--sort SORT]
                                     [--status STATUS] [--page PAGE]
                                     [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--bulk-import-id <bulk_import_id>

--sort <sort>

--status <status>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab ci-lint

```
usage: gitlab ci-lint [-h] {create,validate} ...
```

-h, --help

show this help message and exit

gitlab ci-lint create

```
usage: gitlab ci-lint create [-h] [--sudo SUDO] --content CONTENT
                             [--include-merged-yaml INCLUDE_MERGED_YAML]
                             [--include-jobs INCLUDE_JOBS]
```

-h, --help

show this help message and exit

--sudo <sudo>

--content <content>

--include-merged-yaml <include_merged_yaml>

--include-jobs <include_jobs>

gitlab ci-lint validate

```
usage: gitlab ci-lint validate [-h] --content CONTENT
                               [--include-merged-yaml INCLUDE_MERGED_YAML]
                               [--include-jobs INCLUDE_JOBS]
```

-h, --help

show this help message and exit

--content <content>

--include-merged-yaml <include_merged_yaml>

--include-jobs <include_jobs>

gitlab current-user

```
usage: gitlab current-user [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab current-user get

```
usage: gitlab current-user get [-h] [--sudo SUDO]
```

-h, --help

show this help message and exit

--sudo <sudo>

gitlab current-user-email

```
usage: gitlab current-user-email [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab current-user-email create

```
usage: gitlab current-user-email create [-h] [--sudo SUDO] --email EMAIL
```

-h, --help

show this help message and exit

--sudo <sudo>

--email <email>

gitlab current-user-email delete

```
usage: gitlab current-user-email delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>**--id <id>****gitlab current-user-email get**

```
usage: gitlab current-user-email get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>**--id <id>****gitlab current-user-email list**

```
usage: gitlab current-user-email list [-h] [--sudo SUDO] [--page PAGE]
                                      [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>**--page <page>****--per-page <per_page>****--get-all**

Return all items from the server, without pagination.

gitlab current-user-gpg-key

```
usage: gitlab current-user-gpg-key [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab current-user-gpg-key create

```
usage: gitlab current-user-gpg-key create [-h] [--sudo SUDO] --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>

--key <key>

gitlab current-user-gpg-key delete

```
usage: gitlab current-user-gpg-key delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab current-user-gpg-key get

```
usage: gitlab current-user-gpg-key get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab current-user-gpg-key list

```
usage: gitlab current-user-gpg-key list [-h] [--sudo SUDO] [--page PAGE]
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab current-user-key

```
usage: gitlab current-user-key [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab current-user-key create

```
usage: gitlab current-user-key create [-h] [--sudo SUDO] --title TITLE --key  
KEY
```

-h, --help

show this help message and exit

--sudo <sudo>

--title <title>

--key <key>

gitlab current-user-key delete

```
usage: gitlab current-user-key delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab current-user-key get

```
usage: gitlab current-user-key get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab current-user-key list

```
usage: gitlab current-user-key list [-h] [--sudo SUDO] [--page PAGE]
                                   [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab current-user-runner

```
usage: gitlab current-user-runner [-h] {create} ...
```

-h, --help

show this help message and exit

gitlab current-user-runner create

```
usage: gitlab current-user-runner create [-h] [--sudo SUDO] --runner-type
                                         RUNNER_TYPE [--group-id GROUP_ID]
                                         [--project-id PROJECT_ID]
                                         [--description DESCRIPTION]
                                         [--paused PAUSED] [--locked LOCKED]
                                         [--run-untagged RUN_UNTAGGED]
                                         [--tag-list TAG_LIST]
                                         [--access-level ACCESS_LEVEL]
                                         [--maximum-timeout MAXIMUM_TIMEOUT]
                                         [--maintenance-note MAINTENANCE_NOTE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--runner-type <runner_type>

--group-id <group_id>

--project-id <project_id>

--description <description>

--paused <paused>

--locked <locked>

```
--run-untagged <run_untagged>
--tag-list <tag_list>
--access-level <access_level>
--maximum-timeout <maximum_timeout>
--maintenance-note <maintenance_note>
```

gitlab current-user-status

```
usage: gitlab current-user-status [-h] {get,update} ...
```

-h, --help

show this help message and exit

gitlab current-user-status get

```
usage: gitlab current-user-status get [-h] [--sudo SUDO]
```

-h, --help

show this help message and exit

--sudo <sudo>

gitlab current-user-status update

```
usage: gitlab current-user-status update [-h] [--sudo SUDO] [--emoji EMOJI]
                                         [--message MESSAGE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--emoji <emoji>

--message <message>

gitlab deploy-key

```
usage: gitlab deploy-key [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab deploy-key list

```
usage: gitlab deploy-key list [-h] [--sudo SUDO] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab deploy-token

```
usage: gitlab deploy-token [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab deploy-token list

```
usage: gitlab deploy-token list [-h] [--sudo SUDO] [--page PAGE]
                                 [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab dockerfile

```
usage: gitlab dockerfile [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab dockerfile get

```
usage: gitlab dockerfile get [-h] [--sudo SUDO] --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--name <name>

gitlab dockerfile list

```
usage: gitlab dockerfile list [-h] [--sudo SUDO] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab event

```
usage: gitlab event [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab event list

```
usage: gitlab event list [-h] [--sudo SUDO] [--action ACTION]
                           [--target-type TARGET_TYPE] [--before BEFORE]
                           [--after AFTER] [--sort SORT] [--scope SCOPE]
                           [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--action <action>

--target-type <target_type>

--before <before>

```
--after <after>
--sort <sort>
--scope <scope>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab feature

```
usage: gitlab feature [-h] {list,delete} ...
```

-h, --help

show this help message and exit

gitlab feature delete

```
usage: gitlab feature delete [-h] [--sudo SUDO] --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--name <name>

gitlab feature list

```
usage: gitlab feature list [-h] [--sudo SUDO] [--page PAGE]
                           [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab generic-package

```
usage: gitlab generic-package [-h] {upload,download} ...
```

-h, --help

show this help message and exit

gitlab generic-package download

```
usage: gitlab generic-package download [-h] --project-id PROJECT_ID
                                       [--sudo SUDO] --package-name
                                       PACKAGE_NAME --package-version
                                       PACKAGE_VERSION --file-name FILE_NAME
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--package-name <package_name>

--package-version <package_version>

--file-name <file_name>

gitlab generic-package upload

```
usage: gitlab generic-package upload [-h] --project-id PROJECT_ID
                                       [--sudo SUDO] --package-name PACKAGE_NAME
                                       --package-version PACKAGE_VERSION
                                       --file-name FILE_NAME --path PATH
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--package-name <package_name>

--package-version <package_version>

--file-name <file_name>

--path <path>

gitlab geo-node

```
usage: gitlab geo-node [-h]
  list
  get
  update
  delete
  repair
  status
  current-failures
  ...
```

-h, --help

show this help message and exit

gitlab geo-node current-failures

```
usage: gitlab geo-node current-failures [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab geo-node delete

```
usage: gitlab geo-node delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab geo-node get

```
usage: gitlab geo-node get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab geo-node list

```
usage: gitlab geo-node list [-h] [--sudo SUDO] [--page PAGE]
                            [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab geo-node repair

```
usage: gitlab geo-node repair [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab geo-node status

```
usage: gitlab geo-node status [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab geo-node update

```
usage: gitlab geo-node update [-h] [--sudo SUDO] --id ID [--enabled ENABLED]
                               [--url URL]
                               [--files-max-capacity FILES_MAX_CAPACITY]
                               [--repos-max-capacity REPOS_MAX_CAPACITY]
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

--enabled <enabled>

--url <url>

```
--files-max-capacity <files_max_capacity>
--repos-max-capacity <repos_max_capacity>
```

gitlab gitignore

```
usage: gitlab gitignore [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab gitignore get

```
usage: gitlab gitignore get [-h] [--sudo SUDO] --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--name <name>

gitlab gitignore list

```
usage: gitlab gitignore list [-h] [--sudo SUDO] [--page PAGE]
                             [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab gitlabciyml

```
usage: gitlab gitlabciyml [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab gitlabciyml get

```
usage: gitlab gitlabciyml get [-h] [--sudo SUDO] --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--name <name>

gitlab gitlabciyml list

```
usage: gitlab gitlabciyml list [-h] [--sudo SUDO] [--page PAGE]
                                [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group

```
usage: gitlab group [-h]
    list
    get
    create
    update
    delete
    transfer-project
    transfer
    search
    ldap-sync
    share
    unshare
    restore
    ...
```

-h, --help

show this help message and exit

gitlab group create

```
usage: gitlab group create [-h] [--sudo SUDO] --name NAME --path PATH
                           [--description DESCRIPTION]
                           [--membership-lock MEMBERSHIP_LOCK]
                           [--visibility VISIBILITY]
                           [--share-with-group-lock SHARE_WITH_GROUP_LOCK]
                           [--require-two-factor-authentication REQUIRE_TWO_FACTOR_
                           ↪AUTHENTICATION]
                           [--two-factor-grace-period TWO_FACTOR_GRACE_PERIOD]
                           [--project-creation-level PROJECT_CREATION_LEVEL]
                           [--auto-devops-enabled AUTO_DEVOPS_ENABLED]
                           [--subgroup-creation-level SUBGROUP_CREATION_LEVEL]
                           [--emails-disabled EMAILS_DISABLED]
                           [--avatar AVATAR]
                           [--mentions-disabled MENTIONS_DISABLED]
                           [--lfs-enabled LFS_ENABLED]
                           [--request-access-enabled REQUEST_ACCESS_ENABLED]
                           [--parent-id PARENT_ID]
                           [--default-branch-protection DEFAULT_BRANCH_PROTECTION]
                           [--shared-runners-minutes-limit SHARED_RUNNERS_MINUTES_LIMIT]
                           [--extra-shared-runners-minutes-limit EXTRA_SHARED_RUNNERS_
                           ↪MINUTES_LIMIT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--name <name>

--path <path>

--description <description>

--membership-lock <membership_lock>

--visibility <visibility>

--share-with-group-lock <share_with_group_lock>

--require-two-factor-authentication <require_two_factor_authentication>

--two-factor-grace-period <two_factor_grace_period>

--project-creation-level <project_creation_level>

--auto-devops-enabled <auto_devops_enabled>

--subgroup-creation-level <subgroup_creation_level>

--emails-disabled <emails_disabled>

--avatar <avatar>

--mentions-disabled <mentions_disabled>

```
--lfs-enabled <lfs_enabled>
--request-access-enabled <request_access_enabled>
--parent-id <parent_id>
--default-branch-protection <default_branch_protection>
--shared-runners-minutes-limit <shared_runners_minutes_limit>
--extra-shared-runners-minutes-limit <extra_shared_runners_minutes_limit>
```

gitlab group delete

```
usage: gitlab group delete [-h] [--sudo SUDO] --id ID
```

-h, --help
show this help message and exit
--sudo <sudo>
--id <id>

gitlab group get

```
usage: gitlab group get [-h] [--sudo SUDO] --id ID
```

-h, --help
show this help message and exit
--sudo <sudo>
--id <id>

gitlab group ldap-sync

```
usage: gitlab group ldap-sync [-h] --id ID
```

-h, --help
show this help message and exit
--id <id>

gitlab group list

```
usage: gitlab group list [-h] [--sudo SUDO] [--skip-groups SKIP_GROUPS]
                         [--all-available ALL_AVAILABLE] [--search SEARCH]
                         [--order-by ORDER_BY] [--sort SORT]
                         [--statistics STATISTICS] [--owned OWNED]
                         [--with-custom-attributes WITH_CUSTOM_ATTRIBUTES]
                         [--min-access-level MIN_ACCESS_LEVEL]
```

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```
[--top-level-only TOP_LEVEL_ONLY] [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--skip-groups <skip_groups>

--all-available <all_available>

--search <search>

--order-by <order_by>

--sort <sort>

--statistics <statistics>

--owned <owned>

--with-custom-attributes <with_custom_attributes>

--min-access-level <min_access_level>

--top-level-only <top_level_only>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group restore

```
usage: gitlab group restore [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab group search

```
usage: gitlab group search [-h] --id ID --scope SCOPE --search SEARCH
```

-h, --help

show this help message and exit

--id <id>

--scope <scope>

--search <search>

gitlab group share

```
usage: gitlab group share [-h] --id ID --group-id GROUP_ID --group-access
                           GROUP_ACCESS [--expires-at EXPIRES_AT]
```

-h, --help

show this help message and exit

--id <id>

--group-id <group_id>

--group-access <group_access>

--expires-at <expires_at>

gitlab group transfer

```
usage: gitlab group transfer [-h] --id ID [--group-id GROUP_ID]
```

-h, --help

show this help message and exit

--id <id>

--group-id <group_id>

gitlab group transfer-project

```
usage: gitlab group transfer-project [-h] --id ID --project-id PROJECT_ID
```

-h, --help

show this help message and exit

--id <id>

--project-id <project_id>

gitlab group unshare

```
usage: gitlab group unshare [-h] --id ID --group-id GROUP_ID
```

-h, --help

show this help message and exit

--id <id>

--group-id <group_id>

gitlab group update

```
usage: gitlab group update [-h] [--sudo SUDO] --id ID [--name NAME]
                           [--path PATH] [--description DESCRIPTION]
                           [--membership-lock MEMBERSHIP_LOCK]
                           [--share-with-group-lock SHARE_WITH_GROUP_LOCK]
                           [--visibility VISIBILITY]
                           [--require-two-factor-authentication REQUIRE_TWO_FACTOR_
                           ↵AUTHENTICATION]
                           [--two-factor-grace-period TWO_FACTOR_GRACE_PERIOD]
                           [--project-creation-level PROJECT_CREATION_LEVEL]
                           [--auto-devops-enabled AUTO_DEVOPS_ENABLED]
                           [--subgroup-creation-level SUBGROUP_CREATION_LEVEL]
                           [--emails-disabled EMAILS_DISABLED]
                           [--avatar AVATAR]
                           [--mentions-disabled MENTIONS_DISABLED]
                           [--lfs-enabled LFS_ENABLED]
                           [--request-access-enabled REQUEST_ACCESS_ENABLED]
                           [--default-branch-protection DEFAULT_BRANCH_PROTECTION]
                           [--file-template-project-id FILE_TEMPLATE_PROJECT_ID]
                           [--shared-runners-minutes-limit SHARED_RUNNERS_MINUTES_LIMIT]
                           [--extra-shared-runners-minutes-limit EXTRA_SHARED_RUNNERS_
                           ↵MINUTES_LIMIT]
                           [--prevent-forking-outside-group PREVENT_FORKING_OUTSIDE_
                           ↵GROUP]
                           [--shared-runners-setting SHARED_RUNNERS_SETTING]
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

--name <name>

--path <path>

--description <description>

--membership-lock <membership_lock>

--share-with-group-lock <share_with_group_lock>

--visibility <visibility>

--require-two-factor-authentication <require_two_factor_authentication>

--two-factor-grace-period <two_factor_grace_period>

--project-creation-level <project_creation_level>

--auto-devops-enabled <auto_devops_enabled>

--subgroup-creation-level <subgroup_creation_level>

```
--emails-disabled <emails_disabled>
--avatar <avatar>
--mentions-disabled <mentions_disabled>
--lfs-enabled <lfs_enabled>
--request-access-enabled <request_access_enabled>
--default-branch-protection <default_branch_protection>
--file-template-project-id <file_template_project_id>
--shared-runners-minutes-limit <shared_runners_minutes_limit>
--extra-shared-runners-minutes-limit <extra_shared_runners_minutes_limit>
--prevent-forking-outside-group <prevent_forking_outside_group>
--shared-runners-setting <shared_runners_setting>
```

gitlab group-access-request

```
usage: gitlab group-access-request [-h] {list,create,delete,approve} ...
```

-h, --help

show this help message and exit

gitlab group-access-request approve

```
usage: gitlab group-access-request approve [-h] --group-id GROUP_ID
                                            [--sudo SUDO] --id ID
                                            [--access-level ACCESS_LEVEL]
```

-h, --help

show this help message and exit

--group-id <group_id>

--sudo <sudo>

--id <id>

--access-level <access_level>

gitlab group-access-request create

```
usage: gitlab group-access-request create [-h] [--sudo SUDO] --group-id
                                         GROUP_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

gitlab group-access-request delete

```
usage: gitlab group-access-request delete [-h] [--sudo SUDO] --group-id
                                         GROUP_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-access-request list

```
usage: gitlab group-access-request list [-h] [--sudo SUDO] --group-id GROUP_ID
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-access-token

```
usage: gitlab group-access-token [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab group-access-token create

```
usage: gitlab group-access-token create [-h] [--sudo SUDO] --group-id GROUP_ID
                                         --name NAME --scopes SCOPES
                                         [--access-level ACCESS_LEVEL]
                                         [--expires-at EXPIRES_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>**--group-id <group_id>****--name <name>****--scopes <scopes>****--access-level <access_level>****--expires-at <expires_at>****gitlab group-access-token delete**

```
usage: gitlab group-access-token delete [-h] [--sudo SUDO] --group-id GROUP_ID
                                         --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>**--group-id <group_id>****--id <id>****gitlab group-access-token get**

```
usage: gitlab group-access-token get [-h] [--sudo SUDO] --group-id GROUP_ID
                                         --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

```
--group-id <group_id>
--id <id>
```

gitlab group-access-token list

```
usage: gitlab group-access-token list [-h] [--sudo SUDO] --group-id GROUP_ID
                                      [--page PAGE] [--per-page PER_PAGE]
                                      [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-audit-event

```
usage: gitlab group-audit-event [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab group-audit-event get

```
usage: gitlab group-audit-event get [-h] [--sudo SUDO] --group-id GROUP_ID
                                     --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-audit-event list

```
usage: gitlab group-audit-event list [-h] [--sudo SUDO] --group-id GROUP_ID
                                     [--created-after CREATED_AFTER]
                                     [--created-before CREATED_BEFORE]
                                     [--page PAGE] [--per-page PER_PAGE]
                                     [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--created-after <created_after>

--created-before <created_before>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-badge

```
usage: gitlab group-badge [-h] {list,get,create,update,delete,render} ...
```

-h, --help

show this help message and exit

gitlab group-badge create

```
usage: gitlab group-badge create [-h] [--sudo SUDO] --group-id GROUP_ID
                                 --link-url LINK_URL --image-url IMAGE_URL
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--link-url <link_url>

--image-url <image_url>

gitlab group-badge delete

```
usage: gitlab group-badge delete [-h] [--sudo SUDO] --group-id GROUP_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-badge get

```
usage: gitlab group-badge get [-h] [--sudo SUDO] --group-id GROUP_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-badge list

```
usage: gitlab group-badge list [-h] [--sudo SUDO] --group-id GROUP_ID  
                               [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-badge render

```
usage: gitlab group-badge render [-h] --group-id GROUP_ID [--sudo SUDO] --id
                                 ID --link-url LINK_URL --image-url IMAGE_URL
```

-h, --help

show this help message and exit

--group-id <group_id>

--sudo <sudo>

--id <id>

--link-url <link_url>

--image-url <image_url>

gitlab group-badge update

```
usage: gitlab group-badge update [-h] [--sudo SUDO] --group-id GROUP_ID --id
                                 ID [--link-url LINK_URL]
                                 [--image-url IMAGE_URL]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

--link-url <link_url>

--image-url <image_url>

gitlab group-billable-member

```
usage: gitlab group-billable-member [-h] {list,delete} ...
```

-h, --help

show this help message and exit

gitlab group-billable-member delete

```
usage: gitlab group-billable-member delete [-h] [--sudo SUDO] --group-id
                                         GROUP_ID --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--group-id <group_id>
--id <id>
```

gitlab group-billable-member list

```
usage: gitlab group-billable-member list [-h] [--sudo SUDO] --group-id
                                         GROUP_ID [--search SEARCH]
                                         [--sort SORT] [--page PAGE]
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--group-id <group_id>
```

```
--search <search>
```

```
--sort <sort>
```

```
--page <page>
```

```
--per-page <per_page>
```

```
--get-all
```

Return all items from the server, without pagination.

gitlab group-billable-member-membership

```
usage: gitlab group-billable-member-membership [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab group-billable-member-membership list

```
usage: gitlab group-billable-member-membership list [-h] [--sudo SUDO]
                                                 --group-id GROUP_ID
                                                 --user-id USER_ID
                                                 [--page PAGE]
                                                 [--per-page PER_PAGE]
                                                 [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--group-id <group_id>
--user-id <user_id>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab group-board

```
usage: gitlab group-board [-h] {list,get,create,update,delete} ...
```

```
-h, --help
```

show this help message and exit

gitlab group-board create

```
usage: gitlab group-board create [-h] [--sudo SUDO] --group-id GROUP_ID --name
                                  NAME
```

```
-h, --help
```

show this help message and exit

```
--sudo <sudo>
```

```
--group-id <group_id>
```

```
--name <name>
```

gitlab group-board delete

```
usage: gitlab group-board delete [-h] [--sudo SUDO] --group-id GROUP_ID --id
                                  ID
```

```
-h, --help
```

show this help message and exit

```
--sudo <sudo>
```

```
--group-id <group_id>
```

```
--id <id>
```

gitlab group-board get

```
usage: gitlab group-board get [-h] [--sudo SUDO] --group-id GROUP_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-board list

```
usage: gitlab group-board list [-h] [--sudo SUDO] --group-id GROUP_ID  
                               [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-board update

```
usage: gitlab group-board update [-h] [--sudo SUDO] --group-id GROUP_ID --id  
                                 ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-board-list

```
usage: gitlab group-board-list [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab group-board-list create

```
usage: gitlab group-board-list create [-h] [--sudo SUDO] --group-id GROUP_ID
                                      --board-id BOARD_ID
                                      [--label-id LABEL_ID | --assignee-id ASSIGNEE_ID | ...
                                       --milestone-id MILESTONE_ID]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--board-id <board_id>

--label-id <label_id>

--assignee-id <assignee_id>

--milestone-id <milestone_id>

gitlab group-board-list delete

```
usage: gitlab group-board-list delete [-h] [--sudo SUDO] --group-id GROUP_ID
                                       --board-id BOARD_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--board-id <board_id>

--id <id>

gitlab group-board-list get

```
usage: gitlab group-board-list get [-h] [--sudo SUDO] --group-id GROUP_ID
                                  --board-id BOARD_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--board-id <board_id>

--id <id>

gitlab group-board-list list

```
usage: gitlab group-board-list list [-h] [--sudo SUDO] --group-id GROUP_ID
                                    --board-id BOARD_ID [--page PAGE]
                                    [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--board-id <board_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-board-list update

```
usage: gitlab group-board-list update [-h] [--sudo SUDO] --group-id GROUP_ID
                                       --board-id BOARD_ID --id ID --position
                                       POSITION
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--board-id <board_id>

--id <id>

--position <position>

gitlab group-cluster

```
usage: gitlab group-cluster [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab group-cluster create

```
usage: gitlab group-cluster create [-h] [--sudo SUDO] --group-id GROUP_ID
                                   --name NAME
                                   --platform-kubernetes-attributes
                                   PLATFORM_KUBERNETES_ATTRIBUTES
                                   [--domain DOMAIN] [--enabled ENABLED]
                                   [--managed MANAGED]
                                   [--environment-scope ENVIRONMENT_SCOPE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--name <name>

--platform-kubernetes-attributes <platform_kubernetes_attributes>

--domain <domain>

--enabled <enabled>

--managed <managed>

--environment-scope <environment_scope>

gitlab group-cluster delete

```
usage: gitlab group-cluster delete [-h] [--sudo SUDO] --group-id GROUP_ID --id
                                   ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-cluster get

```
usage: gitlab group-cluster get [-h] [--sudo SUDO] --group-id GROUP_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-cluster list

```
usage: gitlab group-cluster list [-h] [--sudo SUDO] --group-id GROUP_ID  
                                 [--page PAGE] [--per-page PER_PAGE]  
                                 [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-cluster update

```
usage: gitlab group-cluster update [-h] [--sudo SUDO] --group-id GROUP_ID --id  
ID [--name NAME] [--domain DOMAIN]  
[--management-project-id MANAGEMENT_PROJECT_ID]  
[--platform-kubernetes-attributes PLATFORM_KUBERNETES_  
ATTRIBUTES]  
[--environment-scope ENVIRONMENT_SCOPE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

--name <name>

--domain <domain>

```
--management-project-id <management_project_id>
--platform-kubernetes-attributes <platform_kubernetes_attributes>
--environment-scope <environment_scope>
```

gitlab group-custom-attribute

```
usage: gitlab group-custom-attribute [-h] {list,get,delete} ...
```

-h, --help

show this help message and exit

gitlab group-custom-attribute delete

```
usage: gitlab group-custom-attribute delete [-h] [--sudo SUDO] --group-id
                                             GROUP_ID --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--key <key>

gitlab group-custom-attribute get

```
usage: gitlab group-custom-attribute get [-h] [--sudo SUDO] --group-id
                                         GROUP_ID --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--key <key>

gitlab group-custom-attribute list

```
usage: gitlab group-custom-attribute list [-h] [--sudo SUDO] --group-id
                                         GROUP_ID [--page PAGE]
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--group-id <group_id>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab group-deploy-token

```
usage: gitlab group-deploy-token [-h] {list,get,create,delete} ...
```

```
-h, --help
show this help message and exit
```

gitlab group-deploy-token create

```
usage: gitlab group-deploy-token create [-h] [--sudo SUDO] --group-id GROUP_ID
                                         --name NAME --scopes SCOPES
                                         [--expires-at EXPIRES_AT]
                                         [--username USERNAME]
```

```
-h, --help
show this help message and exit
--sudo <sudo>
--group-id <group_id>
--name <name>
--scopes <scopes>
--expires-at <expires_at>
--username <username>
```

gitlab group-deploy-token delete

```
usage: gitlab group-deploy-token delete [-h] [--sudo SUDO] --group-id GROUP_ID
                                         --id ID
```

```
-h, --help
show this help message and exit
--sudo <sudo>
--group-id <group_id>
--id <id>
```

gitlab group-deploy-token get

```
usage: gitlab group-deploy-token get [-h] [--sudo SUDO] --group-id GROUP_ID  
--id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-deploy-token list

```
usage: gitlab group-deploy-token list [-h] [--sudo SUDO] --group-id GROUP_ID  
[--scopes SCOPES] [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--scopes <scopes>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-descendant-group

```
usage: gitlab group-descendant-group [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab group-descendant-group list

```
usage: gitlab group-descendant-group list [-h] [--sudo SUDO] --group-id  
GROUP_ID [--skip-groups SKIP_GROUPS]  
[--all-available ALL_AVAILABLE]  
[--search SEARCH]  
[--order-by ORDER_BY] [--sort SORT]  
[--statistics STATISTICS]
```

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```
[--owned OWNED]
[--with-custom-attributes WITH_CUSTOM_
→ATTRIBUTES]
[--min-access-level MIN_ACCESS_LEVEL]
[--page PAGE] [--per-page PER_PAGE]
[--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--skip-groups <skip_groups>

--all-available <all_available>

--search <search>

--order-by <order_by>

--sort <sort>

--statistics <statistics>

--owned <owned>

--with-custom-attributes <with_custom_attributes>

--min-access-level <min_access_level>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-epic

```
usage: gitlab group-epic [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab group-epic create

```
usage: gitlab group-epic create [-h] [--sudo SUDO] --group-id GROUP_ID --title
                                TITLE [--labels LABELS]
                                [--description DESCRIPTION]
                                [--start-date START_DATE]
                                [--end-date END_DATE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--title <title>

--labels <labels>

--description <description>

--start-date <start_date>

--end-date <end_date>

gitlab group-epic delete

```
usage: gitlab group-epic delete [-h] [--sudo SUDO] --group-id GROUP_ID --iid
                                 IID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--iid <iid>

gitlab group-epic get

```
usage: gitlab group-epic get [-h] [--sudo SUDO] --group-id GROUP_ID --iid IID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--iid <iid>

gitlab group-epic list

```
usage: gitlab group-epic list [-h] [--sudo SUDO] --group-id GROUP_ID
                               [--author-id AUTHOR_ID] [--labels LABELS]
                               [--order-by ORDER_BY] [--sort SORT]
                               [--search SEARCH] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--author-id <author_id>

--labels <labels>

--order-by <order_by>

--sort <sort>

--search <search>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-epic update

```
usage: gitlab group-epic update [-h] [--sudo SUDO] --group-id GROUP_ID --iid
                                 IID [--title TITLE] [--labels LABELS]
                                 [--description DESCRIPTION]
                                 [--start-date START_DATE]
                                 [--end-date END_DATE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--iid <iid>

--title <title>

--labels <labels>

--description <description>

--start-date <start_date>

--end-date <end_date>

gitlab group-epic-award-emoji

```
usage: gitlab group-epic-award-emoji [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab group-epic-award-emoji create

```
usage: gitlab group-epic-award-emoji create [-h] [--sudo SUDO] --group-id
                                             GROUP_ID --epic-iid EPIC_IID
                                             --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-iid <epic_iid>

--name <name>

gitlab group-epic-award-emoji delete

```
usage: gitlab group-epic-award-emoji delete [-h] [--sudo SUDO] --group-id
                                             GROUP_ID --epic-iid EPIC_IID --id
                                             ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-iid <epic_iid>

--id <id>

gitlab group-epic-award-emoji get

```
usage: gitlab group-epic-award-emoji get [-h] [--sudo SUDO] --group-id
                                         GROUP_ID --epic-iid EPIC_IID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

```
--epic-iid <epic_iid>
--id <id>
```

gitlab group-epic-award-emoji list

```
usage: gitlab group-epic-award-emoji list [-h] [--sudo SUDO] --group-id
                                         GROUP_ID --epic-iid EPIC_IID
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--group-id <group_id>
```

```
--epic-iid <epic_iid>
```

```
--page <page>
```

```
--per-page <per_page>
```

```
--get-all
```

Return all items from the server, without pagination.

gitlab group-epic-discussion-note

```
usage: gitlab group-epic-discussion-note [-h] {get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab group-epic-discussion-note create

```
usage: gitlab group-epic-discussion-note create [-h] [--sudo SUDO] --group-id
                                                 GROUP_ID --epic-id EPIC_ID
                                                 --discussion-id DISCUSSION_ID
                                                 --body BODY
                                                 [--created-at CREATED_AT]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--group-id <group_id>
```

```
--epic-id <epic_id>
```

```
--discussion-id <discussion_id>
```

```
--body <body>  
--created-at <created_at>
```

gitlab group-epic-discussion-note delete

```
usage: gitlab group-epic-discussion-note delete [-h] [--sudo SUDO] --group-id  
GROUP_ID --epic-id EPIC_ID  
--discussion-id DISCUSSION_ID  
--id ID
```

```
-h, --help  
    show this help message and exit  
--sudo <sudo>  
--group-id <group_id>  
--epic-id <epic_id>  
--discussion-id <discussion_id>  
--id <id>
```

gitlab group-epic-discussion-note get

```
usage: gitlab group-epic-discussion-note get [-h] [--sudo SUDO] --group-id  
GROUP_ID --epic-id EPIC_ID  
--discussion-id DISCUSSION_ID  
--id ID
```

```
-h, --help  
    show this help message and exit  
--sudo <sudo>  
--group-id <group_id>  
--epic-id <epic_id>  
--discussion-id <discussion_id>  
--id <id>
```

gitlab group-epic-discussion-note update

```
usage: gitlab group-epic-discussion-note update [-h] [--sudo SUDO] --group-id  
GROUP_ID --epic-id EPIC_ID  
--discussion-id DISCUSSION_ID  
--id ID --body BODY
```

```
-h, --help  
    show this help message and exit
```

```
--sudo <sudo>
--group-id <group_id>
--epic-id <epic_id>
--discussion-id <discussion_id>
--id <id>
--body <body>
```

gitlab group-epic-issue

```
usage: gitlab group-epic-issue [-h] {list,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab group-epic-issue create

```
usage: gitlab group-epic-issue create [-h] [--sudo SUDO] --group-id GROUP_ID
                                         --epic-iid EPIC_IID --issue-id ISSUE_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-iid <epic_iid>

--issue-id <issue_id>

gitlab group-epic-issue delete

```
usage: gitlab group-epic-issue delete [-h] [--sudo SUDO] --group-id GROUP_ID
                                         --epic-iid EPIC_IID --epic-issue-id
                                         EPIC_ISSUE_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-iid <epic_iid>

--epic-issue-id <epic_issue_id>

gitlab group-epic-issue list

```
usage: gitlab group-epic-issue list [-h] [--sudo SUDO] --group-id GROUP_ID
                                   --epic-iid EPIC_IID [--page PAGE]
                                   [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-iid <epic_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-epic-issue update

```
usage: gitlab group-epic-issue update [-h] [--sudo SUDO] --group-id GROUP_ID
                                       --epic-iid EPIC_IID --epic-issue-id
                                       EPIC_ISSUE_ID
                                       [--move-before-id MOVE_BEFORE_ID]
                                       [--move-after-id MOVE_AFTER_ID]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-iid <epic_iid>

--epic-issue-id <epic_issue_id>

--move-before-id <move_before_id>

--move-after-id <move_after_id>

gitlab group-epic-note

```
usage: gitlab group-epic-note [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab group-epic-note create

```
usage: gitlab group-epic-note create [-h] [--sudo SUDO] --group-id GROUP_ID
                                     --epic-id EPIC_ID --body BODY
                                     [--created-at CREATED_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-id <epic_id>

--body <body>

--created-at <created_at>

gitlab group-epic-note delete

```
usage: gitlab group-epic-note delete [-h] [--sudo SUDO] --group-id GROUP_ID
                                      --epic-id EPIC_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-id <epic_id>

--id <id>

gitlab group-epic-note get

```
usage: gitlab group-epic-note get [-h] [--sudo SUDO] --group-id GROUP_ID
                                   --epic-id EPIC_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-id <epic_id>

--id <id>

gitlab group-epic-note list

```
usage: gitlab group-epic-note list [-h] [--sudo SUDO] --group-id GROUP_ID  
                                  --epic-id EPIC_ID [--page PAGE]  
                                  [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-id <epic_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-epic-note update

```
usage: gitlab group-epic-note update [-h] [--sudo SUDO] --group-id GROUP_ID  
                                  --epic-id EPIC_ID --id ID --body BODY
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-id <epic_id>

--id <id>

--body <body>

gitlab group-epic-note-award-emoji

```
usage: gitlab group-epic-note-award-emoji [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab group-epic-note-award-emoji create

```
usage: gitlab group-epic-note-award-emoji create [-h] [--sudo SUDO] --group-id
                                                GROUP_ID --epic-iid EPIC_IID
                                                --note-id NOTE_ID --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-iid <epic_iid>

--note-id <note_id>

--name <name>

gitlab group-epic-note-award-emoji delete

```
usage: gitlab group-epic-note-award-emoji delete [-h] [--sudo SUDO] --group-id
                                                GROUP_ID --epic-iid EPIC_IID
                                                --note-id NOTE_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-iid <epic_iid>

--note-id <note_id>

--id <id>

gitlab group-epic-note-award-emoji get

```
usage: gitlab group-epic-note-award-emoji get [-h] [--sudo SUDO] --group-id
                                                GROUP_ID --epic-iid EPIC_IID
                                                --note-id NOTE_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-iid <epic_iid>

--note-id <note_id>

--id <id>

gitlab group-epic-note-award-emoji list

```
usage: gitlab group-epic-note-award-emoji list [-h] [--sudo SUDO] --group-id
                                               GROUP_ID --epic-iid EPIC_IID
                                               --note-id NOTE_ID [--page PAGE]
                                               [--per-page PER_PAGE]
                                               [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-iid <epic_iid>

--note-id <note_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-epic-resource-label-event

```
usage: gitlab group-epic-resource-label-event [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab group-epic-resource-label-event get

```
usage: gitlab group-epic-resource-label-event get [-h] [--sudo SUDO]
                                                 --group-id GROUP_ID
                                                 --epic-id EPIC_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-id <epic_id>

--id <id>

gitlab group-epic-resource-label-event list

```
usage: gitlab group-epic-resource-label-event list [-h] [--sudo SUDO]
                                                 --group-id GROUP_ID
                                                 --epic-id EPIC_ID
                                                 [--page PAGE]
                                                 [--per-page PER_PAGE]
                                                 [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--epic-id <epic_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-export

```
usage: gitlab group-export [-h] {get,create,download} ...
```

-h, --help

show this help message and exit

gitlab group-export create

```
usage: gitlab group-export create [-h] [--sudo SUDO] --group-id GROUP_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

gitlab group-export download

```
usage: gitlab group-export download [-h] --group-id GROUP_ID [--sudo SUDO]
```

-h, --help

show this help message and exit

--group-id <group_id>

--sudo <sudo>

gitlab group-export get

```
usage: gitlab group-export get [-h] [--sudo SUDO] --group-id GROUP_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

gitlab group-hook

```
usage: gitlab group-hook [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab group-hook create

```
usage: gitlab group-hook create [-h] [--sudo SUDO] --group-id GROUP_ID --url
                                URL [--push-events PUSH_EVENTS]
                                [--issues-events ISSUES_EVENTS]
                                [--confidential-issues-events CONFIDENTIAL_ISSUES_EVENTS]
                                [--merge-requests-events MERGE_REQUESTS_EVENTS]
                                [--tag-push-events TAG_PUSH_EVENTS]
                                [--note-events NOTE_EVENTS]
                                [--confidential-note-events CONFIDENTIAL_NOTE_EVENTS]
                                [--job-events JOB_EVENTS]
                                [--pipeline-events PIPELINE_EVENTS]
                                [--wiki-page-events WIKI_PAGE_EVENTS]
                                [--deployment-events DEPLOYMENT_EVENTS]
                                [--releases-events RELEASES_EVENTS]
                                [--subgroup-events SUBGROUP_EVENTS]
                                [--enable-ssl-verification ENABLE_SSL_VERIFICATION]
                                [--token TOKEN]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--url <url>

--push-events <push_events>

--issues-events <issues_events>

--confidential-issues-events <confidential_issues_events>

--merge-requests-events <merge_requests_events>

```
--tag-push-events <tag_push_events>
--note-events <note_events>
--confidential-note-events <confidential_note_events>
--job-events <job_events>
--pipeline-events <pipeline_events>
--wiki-page-events <wiki_page_events>
--deployment-events <deployment_events>
--releases-events <releases_events>
--subgroup-events <subgroup_events>
--enable-ssl-verification <enable_ssl_verification>
--token <token>
```

gitlab group-hook delete

```
usage: gitlab group-hook delete [-h] [--sudo SUDO] --group-id GROUP_ID --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--group-id <group_id>
--id <id>
```

gitlab group-hook get

```
usage: gitlab group-hook get [-h] [--sudo SUDO] --group-id GROUP_ID --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--group-id <group_id>
--id <id>
```

gitlab group-hook list

```
usage: gitlab group-hook list [-h] [--sudo SUDO] --group-id GROUP_ID
                               [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-hook update

```
usage: gitlab group-hook update [-h] [--sudo SUDO] --group-id GROUP_ID --id ID
                                 --url URL [--push-events PUSH_EVENTS]
                                 [--issues-events ISSUES_EVENTS]
                                 [--confidential-issues-events CONFIDENTIAL_ISSUES_EVENTS]
                                 [--merge-requests-events MERGE_REQUESTS_EVENTS]
                                 [--tag-push-events TAG_PUSH_EVENTS]
                                 [--note-events NOTE_EVENTS]
                                 [--confidential-note-events CONFIDENTIAL_NOTE_EVENTS]
                                 [--job-events JOB_EVENTS]
                                 [--pipeline-events PIPELINE_EVENTS]
                                 [--wiki-page-events WIKI_PAGE_EVENTS]
                                 [--deployment-events DEPLOYMENT_EVENTS]
                                 [--releases-events RELEASES_EVENTS]
                                 [--subgroup-events SUBGROUP_EVENTS]
                                 [--enable-ssl-verification ENABLE_SSL_VERIFICATION]
                                 [--token TOKEN]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

--url <url>

--push-events <push_events>

--issues-events <issues_events>

--confidential-issues-events <confidential_issues_events>

```
--merge-requests-events <merge_requests_events>
--tag-push-events <tag_push_events>
--note-events <note_events>
--confidential-note-events <confidential_note_events>
--job-events <job_events>
--pipeline-events <pipeline_events>
--wiki-page-events <wiki_page_events>
--deployment-events <deployment_events>
--releases-events <releases_events>
--subgroup-events <subgroup_events>
--enable-ssl-verification <enable_ssl_verification>
--token <token>
```

gitlab group-import

```
usage: gitlab group-import [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab group-import get

```
usage: gitlab group-import get [-h] [--sudo SUDO] --group-id GROUP_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

gitlab group-invitation

```
usage: gitlab group-invitation [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab group-invitation create

```
usage: gitlab group-invitation create [-h] [--sudo SUDO] --group-id GROUP_ID
                                      --access-level ACCESS_LEVEL
                                      [--expires-at EXPIRES_AT]
                                      [--invite-source INVITE_SOURCE]
                                      [--tasks-to-be-done TASKS_TO_BE_DONE]
                                      [--tasks-project-id TASKS_PROJECT_ID]
                                      [--email EMAIL | --user-id USER_ID]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--access-level <access_level>

--expires-at <expires_at>

--invite-source <invite_source>

--tasks-to-be-done <tasks_to_be_done>

--tasks-project-id <tasks_project_id>

--email <email>

--user-id <user_id>

gitlab group-invitation delete

```
usage: gitlab group-invitation delete [-h] [--sudo SUDO] --group-id GROUP_ID
                                       --email EMAIL
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--email <email>

gitlab group-invitation get

```
usage: gitlab group-invitation get [-h] [--sudo SUDO] --group-id GROUP_ID
                                    --email EMAIL
```

-h, --help

show this help message and exit

--sudo <sudo>

```
--group-id <group_id>
--email <email>
```

gitlab group-invitation list

```
usage: gitlab group-invitation list [-h] [--sudo SUDO] --group-id GROUP_ID
                                     [--query QUERY] [--page PAGE]
                                     [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--query <query>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-invitation update

```
usage: gitlab group-invitation update [-h] [--sudo SUDO] --group-id GROUP_ID
                                       --email EMAIL
                                       [--access-level ACCESS_LEVEL]
                                       [--expires-at EXPIRES_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--email <email>

--access-level <access_level>

--expires-at <expires_at>

gitlab group-issue

```
usage: gitlab group-issue [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab group-issue list

```
usage: gitlab group-issue list [-h] [--sudo SUDO] --group-id GROUP_ID
                               [--state STATE] [--labels LABELS]
                               [--milestone MILESTONE] [--order-by ORDER_BY]
                               [--sort SORT] [--iids IIDS]
                               [--author-id AUTHOR_ID]
                               [--iteration-id ITERATION_ID]
                               [--assignee-id ASSIGNEE_ID]
                               [--my-reaction-emoji MY_REACTION_EMOJI]
                               [--search SEARCH]
                               [--created-after CREATED_AFTER]
                               [--created-before CREATED_BEFORE]
                               [--updated-after UPDATED_AFTER]
                               [--updated-before UPDATED_BEFORE] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--state <state>

--labels <labels>

--milestone <milestone>

--order-by <order_by>

--sort <sort>

--iids <iids>

--author-id <author_id>

--iteration-id <iteration_id>

--assignee-id <assignee_id>

--my-reaction-emoji <my_reaction_emoji>

--search <search>

--created-after <created_after>

```
--created-before <created_before>
--updated-after <updated_after>
--updated-before <updated_before>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab group-issues-statistics

```
usage: gitlab group-issues-statistics [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab group-issues-statistics get

```
usage: gitlab group-issues-statistics get [-h] [--sudo SUDO] --group-id
                                         GROUP_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

gitlab group-iteration

```
usage: gitlab group-iteration [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab group-iteration list

```
usage: gitlab group-iteration list [-h] [--sudo SUDO] --group-id GROUP_ID
                                    [--state STATE] [--search SEARCH]
                                    [--include-ancestors INCLUDE_ANCESTORS]
                                    [--page PAGE] [--per-page PER_PAGE]
                                    [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--group-id <group_id>
--state <state>
--search <search>
--include-ancestors <include_ancestors>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab group-label

```
usage: gitlab group-label [-h]
  list
  get
  create
  update
  delete
  subscribe
  unsubscribe
  ...
```

-h, --help

show this help message and exit

gitlab group-label create

```
usage: gitlab group-label create [-h] [--sudo SUDO] --group-id GROUP_ID --name
                                 NAME --color COLOR
                                 [--description DESCRIPTION]
                                 [--priority PRIORITY]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--group-id <group_id>
```

```
--name <name>
```

```
--color <color>
```

```
--description <description>
```

```
--priority <priority>
```

gitlab group-label delete

```
usage: gitlab group-label delete [-h] [--sudo SUDO] --group-id GROUP_ID --name
                                 NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--name <name>

gitlab group-label get

```
usage: gitlab group-label get [-h] [--sudo SUDO] --group-id GROUP_ID --name
                               NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--name <name>

gitlab group-label list

```
usage: gitlab group-label list [-h] [--sudo SUDO] --group-id GROUP_ID
                               [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-label subscribe

```
usage: gitlab group-label subscribe [-h] --group-id GROUP_ID [--sudo SUDO]
                                   --name NAME
```

-h, --help

show this help message and exit

--group-id <group_id>

--sudo <sudo>

--name <name>

gitlab group-label unsubscribe

```
usage: gitlab group-label unsubscribe [-h] --group-id GROUP_ID [--sudo SUDO]
                                       --name NAME
```

-h, --help

show this help message and exit

--group-id <group_id>

--sudo <sudo>

--name <name>

gitlab group-label update

```
usage: gitlab group-label update [-h] [--sudo SUDO] --group-id GROUP_ID --name
                                 NAME [--new-name NEW_NAME] [--color COLOR]
                                 [--description DESCRIPTION]
                                 [--priority PRIORITY]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--name <name>

--new-name <new_name>

--color <color>

--description <description>

--priority <priority>

gitlab group-ldap-group-link

```
usage: gitlab group-ldap-group-link [-h] {list,create,delete} ...
```

-h, --help

show this help message and exit

gitlab group-ldap-group-link create

```
usage: gitlab group-ldap-group-link create [-h] [--sudo SUDO] --group-id
                                             GROUP_ID --provider PROVIDER
                                             --group-access GROUP_ACCESS
                                             [--cn CN | --filter FILTER]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--provider <provider>

--group-access <group_access>

--cn <cn>

--filter <filter>

gitlab group-ldap-group-link delete

```
usage: gitlab group-ldap-group-link delete [-h] [--sudo SUDO] --group-id
                                             GROUP_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-ldap-group-link list

```
usage: gitlab group-ldap-group-link list [-h] [--sudo SUDO] --group-id
                                         GROUP_ID [--page PAGE]
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--group-id <group_id>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab group-member

```
usage: gitlab group-member [-h] {list,get,create,update,delete} ...
```

-h, --help
show this help message and exit

gitlab group-member create

```
usage: gitlab group-member create [-h] [--sudo SUDO] --group-id GROUP_ID
                                  --access-level ACCESS_LEVEL --user-id
                                  USER_ID [--expires-at EXPIRES_AT]
                                  [--tasks-to-be-done TASKS_TO_BE_DONE]
```

-h, --help
show this help message and exit

```
--sudo <sudo>
--group-id <group_id>
--access-level <access_level>
--user-id <user_id>
--expires-at <expires_at>
--tasks-to-be-done <tasks_to_be_done>
```

gitlab group-member delete

```
usage: gitlab group-member delete [-h] [--sudo SUDO] --group-id GROUP_ID --id
                                  ID
```

-h, --help
show this help message and exit

```
--sudo <sudo>
--group-id <group_id>
--id <id>
```

gitlab group-member get

```
usage: gitlab group-member get [-h] [--sudo SUDO] --group-id GROUP_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-member list

```
usage: gitlab group-member list [-h] [--sudo SUDO] --group-id GROUP_ID  
                                [--page PAGE] [--per-page PER_PAGE]  
                                [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-member update

```
usage: gitlab group-member update [-h] [--sudo SUDO] --group-id GROUP_ID --id  
                                  ID --access-level ACCESS_LEVEL  
                                  [--expires-at EXPIRES_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

--access-level <access_level>

--expires-at <expires_at>

gitlab group-member-all

```
usage: gitlab group-member-all [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab group-member-all get

```
usage: gitlab group-member-all get [-h] [--sudo SUDO] --group-id GROUP_ID --id
                                   ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-member-all list

```
usage: gitlab group-member-all list [-h] [--sudo SUDO] --group-id GROUP_ID
                                    [--page PAGE] [--per-page PER_PAGE]
                                    [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-merge-request

```
usage: gitlab group-merge-request [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab group-merge-request list

```
usage: gitlab group-merge-request list [-h] [--sudo SUDO] --group-id GROUP_ID
                                         [--state STATE] [--order-by ORDER_BY]
                                         [--sort SORT] [--milestone MILESTONE]
                                         [--view VIEW] [--labels LABELS]
                                         [--created-after CREATED_AFTER]
                                         [--created-before CREATED_BEFORE]
                                         [--updated-after UPDATED_AFTER]
                                         [--updated-before UPDATED_BEFORE]
                                         [--scope SCOPE] [--author-id AUTHOR_ID]
                                         [--assignee-id ASSIGNEE_ID]
                                         [--approver-ids APPROVER_IDS]
                                         [--approved-by-ids APPROVED_BY_IDS]
                                         [--my-reaction-emoji MY_REACTION_EMOJI]
                                         [--source-branch SOURCE_BRANCH]
                                         [--target-branch TARGET_BRANCH]
                                         [--search SEARCH] [--wip WIP]
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--state <state>

--order-by <order_by>

--sort <sort>

--milestone <milestone>

--view <view>

--labels <labels>

--created-after <created_after>

--created-before <created_before>

--updated-after <updated_after>

--updated-before <updated_before>

--scope <scope>

--author-id <author_id>

--assignee-id <assignee_id>

--approver-ids <approver_ids>

--approved-by-ids <approved_by_ids>

```
--my-reaction-emoji <my_reaction_emoji>
--source-branch <source_branch>
--target-branch <target_branch>
--search <search>
--wip <wip>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab group-milestone

```
usage: gitlab group-milestone [-h]
  list
  get
  create
  update
  delete
  issues
  merge-requests
  ...
  
```

-h, --help

show this help message and exit

gitlab group-milestone create

```
usage: gitlab group-milestone create [-h] [--sudo SUDO] --group-id GROUP_ID
                                      --title TITLE [--description DESCRIPTION]
                                      [--due-date DUE_DATE]
                                      [--start-date START_DATE]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--group-id <group_id>
```

```
--title <title>
```

```
--description <description>
```

```
--due-date <due_date>
```

```
--start-date <start_date>
```

gitlab group-milestone delete

```
usage: gitlab group-milestone delete [-h] [--sudo SUDO] --group-id GROUP_ID  
                                     --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-milestone get

```
usage: gitlab group-milestone get [-h] [--sudo SUDO] --group-id GROUP_ID --id  
                                   ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--id <id>

gitlab group-milestone issues

```
usage: gitlab group-milestone issues [-h] --group-id GROUP_ID [--sudo SUDO]  
                                     --id ID
```

-h, --help

show this help message and exit

--group-id <group_id>

--sudo <sudo>

--id <id>

gitlab group-milestone list

```
usage: gitlab group-milestone list [-h] [--sudo SUDO] --group-id GROUP_ID  
                                     [--iids IIDS] [--state STATE]  
                                     [--search SEARCH] [--page PAGE]  
                                     [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--group-id <group_id>
--iids <iids>
--state <state>
--search <search>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab group-milestone merge-requests

```
usage: gitlab group-milestone merge-requests [-h] --group-id GROUP_ID
                                              [--sudo SUDO] --id ID
```

```
-h, --help
    show this help message and exit
--group-id <group_id>
--sudo <sudo>
--id <id>
```

gitlab group-milestone update

```
usage: gitlab group-milestone update [-h] [--sudo SUDO] --group-id GROUP_ID
                                      --id ID [--title TITLE]
                                      [--description DESCRIPTION]
                                      [--due-date DUE_DATE]
                                      [--start-date START_DATE]
                                      [--state-event STATE_EVENT]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--group-id <group_id>
--id <id>
--title <title>
--description <description>
--due-date <due_date>
```

```
--start-date <start_date>  
--state-event <state_event>
```

gitlab group-notification-settings

```
usage: gitlab group-notification-settings [-h] {get,update} ...
```

-h, --help

show this help message and exit

gitlab group-notification-settings get

```
usage: gitlab group-notification-settings get [-h] [--sudo SUDO] --group-id  
GROUP_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

gitlab group-notification-settings update

```
usage: gitlab group-notification-settings update [-h] [--sudo SUDO] --group-id  
GROUP_ID [--level LEVEL]  
[--notification-email NOTIFICATION_  
EMAIL]  
[--new-note NEW_NOTE]  
[--new-issue NEW_ISSUE]  
[--reopen-issue REOPEN_ISSUE]  
[--close-issue CLOSE_ISSUE]  
[--reassign-issue REASSIGN_ISSUE]  
[--new-merge-request NEW_MERGE_REQUEST]  
[--reopen-merge-request REOPEN_MERGE_  
REQUEST]  
[--close-merge-request CLOSE_MERGE_  
REQUEST]  
[--reassign-merge-request REASSIGN_  
MERGE_REQUEST]  
[--merge-merge-request MERGE_MERGE_  
REQUEST]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

```
--level <level>
--notification-email <notification_email>
--new-note <new_note>
--new-issue <new_issue>
--reopen-issue <reopen_issue>
--close-issue <close_issue>
--reassign-issue <reassign_issue>
--new-merge-request <new_merge_request>
--reopen-merge-request <reopen_merge_request>
--close-merge-request <close_merge_request>
--reassign-merge-request <reassign_merge_request>
--merge-merge-request <merge_merge_request>
```

gitlab group-package

```
usage: gitlab group-package [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab group-package list

```
usage: gitlab group-package list [-h] [--sudo SUDO] --group-id GROUP_ID
                                 [--exclude-subgroups EXCLUDE_SUBGROUPS]
                                 [--order-by ORDER_BY] [--sort SORT]
                                 [--package-type PACKAGE_TYPE]
                                 [--package-name PACKAGE_NAME] [--page PAGE]
                                 [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--exclude-subgroups <exclude_subgroups>

--order-by <order_by>

--sort <sort>

--package-type <package_type>

```
--package-name <package_name>
--page <page>
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab group-project

```
usage: gitlab group-project [-h] {list} ...
```

```
-h, --help
    show this help message and exit
```

gitlab group-project list

```
usage: gitlab group-project list [-h] [--sudo SUDO] --group-id GROUP_ID
                                  [--archived ARCHIVED]
                                  [--visibility VISIBILITY]
                                  [--order-by ORDER_BY] [--sort SORT]
                                  [--search SEARCH] [--simple SIMPLE]
                                  [--owned OWNED] [--starred STARRED]
                                  [--with-custom-attributes WITH_CUSTOM_ATTRIBUTES]
                                  [--include-subgroups INCLUDE_SUBGROUPS]
                                  [--with-issues-enabled WITH_ISSUES_ENABLED]
                                  [--with-merge-requests-enabled WITH_MERGE_REQUESTS_
                                   ↵ENABLED]
                                  [--with-shared WITH_SHARED]
                                  [--min-access-level MIN_ACCESS_LEVEL]
                                  [--with-security-reports WITH_SECURITY_REPORTS]
                                  [--page PAGE] [--per-page PER_PAGE]
                                  [--get-all]
```

```
-h, --help
    show this help message and exit
```

```
--sudo <sudo>
--group-id <group_id>
--archived <archived>
--visibility <visibility>
--order-by <order_by>
--sort <sort>
--search <search>
--simple <simple>
```

```
--owned <owned>
--starred <starred>
--with-custom-attributes <with_custom_attributes>
--include-subgroups <include_subgroups>
--with-issues-enabled <with_issues_enabled>
--with-merge-requests-enabled <with_merge_requests_enabled>
--with-shared <with_shared>
--min-access-level <min_access_level>
--with-security-reports <with_security_reports>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab group-push-rules

```
usage: gitlab group-push-rules [-h] {get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab group-push-rules create

```
usage: gitlab group-push-rules create [-h] [--sudo SUDO] --group-id GROUP_ID
                                      [--deny-delete-tag DENY_DELETE_TAG]
                                      [--member-check MEMBER_CHECK]
                                      [--prevent-secrets PREVENT_SECRETS]
                                      [--commit-message-regex COMMIT_MESSAGE_REGEX]
                                      [--commit-message-negative-regex COMMIT_MESSAGE_
                                       ↵NEGATIVE_REGEX]
                                      [--branch-name-regex BRANCH_NAME_REGEX]
                                      [--author-email-regex AUTHOR_EMAIL_REGEX]
                                      [--file-name-regex FILE_NAME_REGEX]
                                      [--max-file-size MAX_FILE_SIZE]
                                      [--commit-committer-check COMMIT_COMMITTER_CHECK]
                                      [--reject-unsigned-commits REJECT_UNSIGNED_COMMITS]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

```
--deny-delete-tag <deny_delete_tag>
--member-check <member_check>
--prevent-secrets <prevent_secrets>
--commit-message-regex <commit_message_regex>
--commit-message-negative-regex <commit_message_negative_regex>
--branch-name-regex <branch_name_regex>
--author-email-regex <author_email_regex>
--file-name-regex <file_name_regex>
--max-file-size <max_file_size>
--commit-committer-check <commit_committer_check>
--reject-unsigned-commits <reject_unsigned_commits>
```

gitlab group-push-rules delete

```
usage: gitlab group-push-rules delete [-h] [--sudo SUDO] --group-id GROUP_ID
```

-h, --help
show this help message and exit
--sudo <sudo>
--group-id <group_id>

gitlab group-push-rules get

```
usage: gitlab group-push-rules get [-h] [--sudo SUDO] --group-id GROUP_ID
```

-h, --help
show this help message and exit
--sudo <sudo>
--group-id <group_id>

gitlab group-push-rules update

```
usage: gitlab group-push-rules update [-h] [--sudo SUDO] --group-id GROUP_ID
                                      [--deny-delete-tag DENY_DELETE_TAG]
                                      [--member-check MEMBER_CHECK]
                                      [--prevent-secrets PREVENT_SECRETS]
                                      [--commit-message-regex COMMIT_MESSAGE_REGEX]
                                      [--commit-message-negative-regex COMMIT_MESSAGE_
                                       NEGATIVE_REGEX]
```

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```
[--branch-name-regex BRANCH_NAME_REGEX]
[--author-email-regex AUTHOR_EMAIL_REGEX]
[--file-name-regex FILE_NAME_REGEX]
[--max-file-size MAX_FILE_SIZE]
[--commit-committer-check COMMIT_COMMITTER_CHECK]
[--reject-unsigned-commits REJECT_UNSIGNED_COMMITS]
```

-h, --help

show this help message and exit

--sudo <sudo>**--group-id <group_id>****--deny-delete-tag <deny_delete_tag>****--member-check <member_check>****--prevent-secrets <prevent_secrets>****--commit-message-regex <commit_message_regex>****--commit-message-negative-regex <commit_message_negative_regex>****--branch-name-regex <branch_name_regex>****--author-email-regex <author_email_regex>****--file-name-regex <file_name_regex>****--max-file-size <max_file_size>****--commit-committer-check <commit_committer_check>****--reject-unsigned-commits <reject_unsigned_commits>****gitlab group-runner**

```
usage: gitlab group-runner [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab group-runner list

```
usage: gitlab group-runner list [-h] [--sudo SUDO] --group-id GROUP_ID
                                [--scope SCOPE] [--tag-list TAG_LIST]
                                [--page PAGE] [--per-page PER_PAGE]
                                [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--group-id <group_id>
--scope <scope>
--tag-list <tag_list>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab group-saml-group-link

```
usage: gitlab group-saml-group-link [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab group-saml-group-link create

```
usage: gitlab group-saml-group-link create [-h] [--sudo SUDO] --group-id
                                             GROUP_ID --saml-group-name
                                             SAML_GROUP_NAME --access-level
                                             ACCESS_LEVEL
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--saml-group-name <saml_group_name>

--access-level <access_level>

gitlab group-saml-group-link delete

```
usage: gitlab group-saml-group-link delete [-h] [--sudo SUDO] --group-id
                                             GROUP_ID --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--name <name>

gitlab group-saml-group-link get

```
usage: gitlab group-saml-group-link get [-h] [--sudo SUDO] --group-id GROUP_ID  
                                         --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--name <name>

gitlab group-saml-group-link list

```
usage: gitlab group-saml-group-link list [-h] [--sudo SUDO] --group-id  
                                         GROUP_ID [--page PAGE]  
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-subgroup

```
usage: gitlab group-subgroup [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab group-subgroup list

```
usage: gitlab group-subgroup list [-h] [--sudo SUDO] --group-id GROUP_ID  
                                     [--skip-groups SKIP_GROUPS]  
                                     [--all-available ALL_AVAILABLE]  
                                     [--search SEARCH] [--order-by ORDER_BY]  
                                     [--sort SORT] [--statistics STATISTICS]  
                                     [--owned OWNED]  
                                     [--with-custom-attributes WITH_CUSTOM_ATTRIBUTES]  
                                     [--min-access-level MIN_ACCESS_LEVEL]
```

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```
[--page PAGE] [--per-page PER_PAGE]  
[--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--skip-groups <skip_groups>

--all-available <all_available>

--search <search>

--order-by <order_by>

--sort <sort>

--statistics <statistics>

--owned <owned>

--with-custom-attributes <with_custom_attributes>

--min-access-level <min_access_level>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab group-variable

```
usage: gitlab group-variable [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab group-variable create

```
usage: gitlab group-variable create [-h] [--sudo SUDO] --group-id GROUP_ID  
--key KEY --value VALUE  
[--protected PROTECTED]  
[--variable-type VARIABLE_TYPE]  
[--masked MASKED]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--group-id <group_id>
--key <key>
--value <value>
--protected <protected>
--variable-type <variable_type>
--masked <masked>
```

gitlab group-variable delete

```
usage: gitlab group-variable delete [-h] [--sudo SUDO] --group-id GROUP_ID
                                   --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--key <key>

gitlab group-variable get

```
usage: gitlab group-variable get [-h] [--sudo SUDO] --group-id GROUP_ID --key
                                 KEY
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--key <key>

gitlab group-variable list

```
usage: gitlab group-variable list [-h] [--sudo SUDO] --group-id GROUP_ID
                                   [--page PAGE] [--per-page PER_PAGE]
                                   [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

```
--group-id <group_id>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab group-variable update

```
usage: gitlab group-variable update [-h] [--sudo SUDO] --group-id GROUP_ID
                                    --key KEY --value VALUE
                                    [--protected PROTECTED]
                                    [--variable-type VARIABLE_TYPE]
                                    [--masked MASKED]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--key <key>

--value <value>

--protected <protected>

--variable-type <variable_type>

--masked <masked>

gitlab group-wiki

```
usage: gitlab group-wiki [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab group-wiki create

```
usage: gitlab group-wiki create [-h] [--sudo SUDO] --group-id GROUP_ID --title
                                 TITLE --content CONTENT [--format FORMAT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

```
--title <title>
--content <content>
--format <format>
```

gitlab group-wiki delete

```
usage: gitlab group-wiki delete [-h] [--sudo SUDO] --group-id GROUP_ID --slug
                                SLUG
```

-h, --help
show this help message and exit

--sudo <sudo>

--group-id <group_id>

--slug <slug>

gitlab group-wiki get

```
usage: gitlab group-wiki get [-h] [--sudo SUDO] --group-id GROUP_ID --slug
                             SLUG
```

-h, --help
show this help message and exit

--sudo <sudo>

--group-id <group_id>

--slug <slug>

gitlab group-wiki list

```
usage: gitlab group-wiki list [-h] [--sudo SUDO] --group-id GROUP_ID
                               [--with-content WITH_CONTENT] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help
show this help message and exit

--sudo <sudo>

--group-id <group_id>

--with-content <with_content>

--page <page>

--per-page <per_page>

--get-all
Return all items from the server, without pagination.

gitlab group-wiki update

```
usage: gitlab group-wiki update [-h] [--sudo SUDO] --group-id GROUP_ID --slug
                                SLUG [--title TITLE] [--content CONTENT]
                                [--format FORMAT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--group-id <group_id>

--slug <slug>

--title <title>

--content <content>

--format <format>

gitlab hook

```
usage: gitlab hook [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab hook create

```
usage: gitlab hook create [-h] [--sudo SUDO] --url URL
```

-h, --help

show this help message and exit

--sudo <sudo>

--url <url>

gitlab hook delete

```
usage: gitlab hook delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab hook get

```
usage: gitlab hook get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab hook list

```
usage: gitlab hook list [-h] [--sudo SUDO] [--page PAGE] [--per-page PER_PAGE]
                        [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab issue

```
usage: gitlab issue [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab issue get

```
usage: gitlab issue get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab issue list

```
usage: gitlab issue list [-h] [--sudo SUDO] [--state STATE] [--labels LABELS]
                         [--milestone MILESTONE] [--scope SCOPE]
                         [--author-id AUTHOR_ID] [--iteration-id ITERATION_ID]
                         [--assignee-id ASSIGNEE_ID]
                         [--my-reaction-emoji MY_REACTION_EMOJI] [--iids IIDS]
                         [--order-by ORDER_BY] [--sort SORT] [--search SEARCH]
                         [--created-after CREATED_AFTER]
                         [--created-before CREATED_BEFORE]
                         [--updated-after UPDATED_AFTER]
                         [--updated-before UPDATED_BEFORE] [--page PAGE]
                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--state <state>

--labels <labels>

--milestone <milestone>

--scope <scope>

--author-id <author_id>

--iteration-id <iteration_id>

--assignee-id <assignee_id>

--my-reaction-emoji <my_reaction_emoji>

--iids <iids>

--order-by <order_by>

--sort <sort>

--search <search>

--created-after <created_after>

--created-before <created_before>

--updated-after <updated_after>

--updated-before <updated_before>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab issues-statistics

```
usage: gitlab issues-statistics [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab issues-statistics get

```
usage: gitlab issues-statistics get [-h] [--sudo SUDO]
```

-h, --help

show this help message and exit

--sudo <sudo>

gitlab key

```
usage: gitlab key [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab key get

```
usage: gitlab key get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab ldap-group

```
usage: gitlab ldap-group [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab ldap-group list

```
usage: gitlab ldap-group list [-h] [--sudo SUDO] [--search SEARCH]
                               [--provider PROVIDER] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--search <search>

--provider <provider>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab license

```
usage: gitlab license [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab license get

```
usage: gitlab license get [-h] [--sudo SUDO] --key KEY [--project PROJECT]
                           [--fullname FULLNAME]
```

-h, --help

show this help message and exit

--sudo <sudo>

--key <key>

--project <project>

--fullname <fullname>

gitlab license list

```
usage: gitlab license list [-h] [--sudo SUDO] [--popular POPULAR]
                           [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--popular <popular>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab merge-request

```
usage: gitlab merge-request [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab merge-request list

```
usage: gitlab merge-request list [-h] [--sudo SUDO] [--state STATE]
                                 [--order-by ORDER_BY] [--sort SORT]
                                 [--milestone MILESTONE] [--view VIEW]
                                 [--labels LABELS]
                                 [--with-labels-details WITH_LABELS_DETAILS]
                                 [--with-merge-status-recheck WITH_MERGE_STATUS_RECHECK]
                                 [--created-after CREATED_AFTER]
                                 [--created-before CREATED_BEFORE]
                                 [--updated-after UPDATED_AFTER]
                                 [--updated-before UPDATED_BEFORE]
                                 [--scope SCOPE] [--author-id AUTHOR_ID]
                                 [--author-username AUTHOR_USERNAME]
                                 [--assignee-id ASSIGNEE_ID]
                                 [--approver-ids APPROVER_IDS]
                                 [--approved-by-ids APPROVED_BY_IDS]
                                 [--reviewer-id REVIEWER_ID]
                                 [--reviewer-username REVIEWER_USERNAME]
                                 [--my-reaction-emoji MY_REACTION_EMOJI]
                                 [--source-branch SOURCE_BRANCH]
                                 [--target-branch TARGET_BRANCH]
                                 [--search SEARCH] [--in IN] [--wip WIP]
                                 [--not NOT] [--environment ENVIRONMENT]
                                 [--deployed-before DEPLOYED_BEFORE]
                                 [--deployed-after DEPLOYED_AFTER]
```

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```
[--page PAGE] [--per-page PER_PAGE]  
[--get-all]
```

```
-h, --help  
    show this help message and exit  
--sudo <sudo>  
--state <state>  
--order-by <order_by>  
--sort <sort>  
--milestone <milestone>  
--view <view>  
--labels <labels>  
--with-labels-details <with_labels_details>  
--with-merge-status-recheck <with_merge_status_recheck>  
--created-after <created_after>  
--created-before <created_before>  
--updated-after <updated_after>  
--updated-before <updated_before>  
--scope <scope>  
--author-id <author_id>  
--author-username <author_username>  
--assignee-id <assignee_id>  
--approver-ids <approver_ids>  
--approved-by-ids <approved_by_ids>  
--reviewer-id <reviewer_id>  
--reviewer-username <reviewer_username>  
--my-reaction-emoji <my_reaction_emoji>  
--source-branch <source_branch>  
--target-branch <target_branch>  
--search <search>  
--in <in>  
--wip <wip>
```

```
--not <not>
--environment <environment>
--deployed-before <deployed_before>
--deployed-after <deployed_after>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab namespace

```
usage: gitlab namespace [-h] {list,get,exists} ...
```

-h, --help

show this help message and exit

gitlab namespace exists

```
usage: gitlab namespace exists [-h] --id ID --namespace NAMESPACE --parent-id
                               PARENT_ID
```

-h, --help

show this help message and exit

--id <id>

--namespace <namespace>

--parent-id <parent_id>

gitlab namespace get

```
usage: gitlab namespace get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab namespace list

```
usage: gitlab namespace list [-h] [--sudo SUDO] [--search SEARCH]
                             [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--search <search>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab notification-settings

```
usage: gitlab notification-settings [-h] {get,update} ...
```

-h, --help

show this help message and exit

gitlab notification-settings get

```
usage: gitlab notification-settings get [-h] [--sudo SUDO]
```

-h, --help

show this help message and exit

--sudo <sudo>

gitlab notification-settings update

```
usage: gitlab notification-settings update [-h] [--sudo SUDO] [--level LEVEL]
                                            [--notification-email NOTIFICATION_EMAIL]
                                            [--new-note NEW_NOTE]
                                            [--new-issue NEW_ISSUE]
                                            [--reopen-issue REOPEN_ISSUE]
                                            [--close-issue CLOSE_ISSUE]
                                            [--reassign-issue REASSIGN_ISSUE]
                                            [--new-merge-request NEW_MERGE_REQUEST]
                                            [--reopen-merge-request REOPEN_MERGE_REQUEST]
                                            [--close-merge-request CLOSE_MERGE_REQUEST]
                                            [--reassign-merge-request REASSIGN_MERGE_
                                            REQUEST]
                                            [--merge-merge-request MERGE_MERGE_REQUEST]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--level <level>
--notification-email <notification_email>
--new-note <new_note>
--new-issue <new_issue>
--reopen-issue <reopen_issue>
--close-issue <close_issue>
--reassign-issue <reassign_issue>
--new-merge-request <new_merge_request>
--reopen-merge-request <reopen_merge_request>
--close-merge-request <close_merge_request>
--reassign-merge-request <reassign_merge_request>
--merge-merge-request <merge_merge_request>
```

gitlab pages-domain

```
usage: gitlab pages-domain [-h] {list} ...
```

```
-h, --help
    show this help message and exit
```

gitlab pages-domain list

```
usage: gitlab pages-domain list [-h] [--sudo SUDO] [--page PAGE]
                                [--per-page PER_PAGE] [--get-all]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--page <page>
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab personal-access-token

```
usage: gitlab personal-access-token [-h] {list,get,delete} ...
```

-h, --help

show this help message and exit

gitlab personal-access-token delete

```
usage: gitlab personal-access-token delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab personal-access-token get

```
usage: gitlab personal-access-token get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab personal-access-token list

```
usage: gitlab personal-access-token list [-h] [--sudo SUDO]
                                         [--user-id USER_ID] [--page PAGE]
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project

```
usage: gitlab project [-h]
  list
  get
  create
  update
  delete
  upload
  update-submodule
  repository-tree
  repository-blob
  repository-raw-blob
  repository-compare
  repository-contributors
  repository-archive
  repository-merge-base
  delete-merged-branches
  create-fork-relation
  delete-fork-relation
  languages
  star
  unstar
  archive
  unarchive
  share
  unshare
  trigger-pipeline
  housekeeping
  restore
  snapshot
  search
  mirror-pull
  mirror-pull-details
  transfer
  ...
```

-h, --help

show this help message and exit

gitlab project archive

```
usage: gitlab project archive [-h] --id ID
```

-h, --help

show this help message and exit

```
--id <id>
```

gitlab project create

```
usage: gitlab project create [-h] [--sudo SUDO] [--name NAME] [--path PATH]
                             [--allow-merge-on-skipped-pipeline ALLOW_MERGE_ON_SKIPPED_
                             PIPELINE]
                             [--only-allow-merge-if-all-status-checks-passed ONLY_ALLOW_
                             MERGE_IF_ALL_STATUS_CHECKS_PASSED]
                             [--analytics-access-level ANALYTICS_ACCESS_LEVEL]
                             [--approvals-before-merge APPROVALS_BEFORE_MERGE]
                             [--auto-cancel-pending-pipelines AUTO_CANCEL_PENDING_
                             PIPELINES]
                             [--auto-devops-deploy-strategy AUTO_DEVOPS_DEPLOY_STRATEGY]
                             [--auto-devops-enabled AUTO_DEVOPS_ENABLED]
                             [--autoclose-referenced-issues AUTOCLOSE_REFERENCED_ISSUES]
                             [--avatar AVATAR]
                             [--build-coverage-regex BUILD_COVERAGE_REGEX]
                             [--build-git-strategy BUILD_GIT_STRATEGY]
                             [--build-timeout BUILD_TIMEOUT]
                             [--builds-access-level BUILDS_ACCESS_LEVEL]
                             [--ci-config-path CI_CONFIG_PATH]
                             [--container-expiration-policy-attributes CONTAINER_
                             EXPIRATION_POLICY_ATTRIBUTES]
                             [--container-registry-access-level CONTAINER_REGISTRY_
                             ACCESS_LEVEL]
                             [--container-registry-enabled CONTAINER_REGISTRY_ENABLED]
                             [--default-branch DEFAULT_BRANCH]
                             [--description DESCRIPTION]
                             [--emails-disabled EMAILS_DISABLED]
                             [--external-authorization-classification-label EXTERNAL_
                             AUTHORIZATION_CLASSIFICATION_LABEL]
                             [--forking-access-level FORKING_ACCESS_LEVEL]
                             [--group-with-project-templates-id GROUP_WITH_PROJECT_
                             TEMPLATES_ID]
                             [--import-url IMPORT_URL]
                             [--initialize-with-readme INITIALIZE_WITH_README]
                             [--issues-access-level ISSUES_ACCESS_LEVEL]
                             [--issues-enabled ISSUES_ENABLED]
                             [--jobs-enabled JOBS_ENABLED]
                             [--lfs-enabled LFS_ENABLED]
                             [--merge-method MERGE_METHOD]
                             [--merge-pipelines-enabled MERGE_PIPELINES_ENABLED]
                             [--merge-requests-access-level MERGE_REQUESTS_ACCESS_LEVEL]
                             [--merge-requests-enabled MERGE_REQUESTS_ENABLED]
                             [--mirror-trigger-builds MIRROR_TRIGGER_BUILDSETS]
                             [--mirror MIRROR] [--namespace-id NAMESPACE_ID]
                             [--operations-access-level OPERATIONS_ACCESS_LEVEL]
                             [--only-allow-merge-if-all-discussions-are-resolved ONLY_
                             ALLOW_MERGE_IF_ALL_DISCUSSIONS_ARE_RESOLVED]
                             [--only-allow-merge-if-pipeline-succeeds ONLY_ALLOW_MERGE_
                             IF_PIPELINE_SUCCEEDS]
                             [--packages-enabled PACKAGES_ENABLED]
                             [--pages-access-level PAGES_ACCESS_LEVEL]
                             [--requirements-access-level REQUIREMENTS_ACCESS_LEVEL]
```

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```

--REQUEST_LINK_ENABLED]
[--printing-merge-request-link-enabled PRINTING_MERGE_
[--public-builds PUBLIC_BUILD]
[--releases-access-level RELEASES_ACCESS_LEVEL]
[--environments-access-level ENVIRONMENTS_ACCESS_LEVEL]
[--feature-flags-access-level FEATURE_FLAGS_ACCESS_LEVEL]
[--infrastructure-access-level INFRASTRUCTURE_ACCESS_LEVEL]
[--monitor-access-level MONITOR_ACCESS_LEVEL]
[--remove-source-branch-after-merge REMOVE_SOURCE_BRANCH_]

--AFTER_MERGE]
[--repository-access-level REPOSITORY_ACCESS_LEVEL]
[--repository-storage REPOSITORY_STORAGE]
[--request-access-enabled REQUEST_ACCESS_ENABLED]
[--resolve-outdated-diff-discussions RESOLVE_OUTDATED_DIFF_]

--DISCUSSIONS]
[--security-and-compliance-access-level SECURITY_AND_

--COMPLIANCE_ACCESS_LEVEL]
[--shared-runners-enabled SHARED_RUNNERS_ENABLED]
[--show-default-award-emojis SHOW_DEFAULT_AWARD_EMOJIS]
[--snippets-access-level SNIPPETS_ACCESS_LEVEL]
[--snippets-enabled SNIPPETS_ENABLED]
[--squash-option SQUASH_OPTION]
[--tag-list TAG_LIST] [--topics TOPICS]
[--template-name TEMPLATE_NAME]
[--template-project-id TEMPLATE_PROJECT_ID]
[--use-custom-template USE_CUSTOM_TEMPLATE]
[--visibility VISIBILITY]
[--wiki-access-level WIKI_ACCESS_LEVEL]
[--wiki-enabled WIKI_ENABLED]

```

-h, --help

show this help message and exit

--sudo <sudo>**--name <name>****--path <path>****--allow-merge-on-skipped-pipeline <allow_merge_on_skipped_pipeline>****--only-allow-merge-if-all-status-checks-passed <only_allow_merge_if_all_status_checks_passed>****--analytics-access-level <analytics_access_level>****--approvals-before-merge <approvals_before_merge>****--auto-cancel-pending-pipelines <auto_cancel_pending_pipelines>****--auto-devops-deploy-strategy <auto_devops_deploy_strategy>****--auto-devops-enabled <auto_devops_enabled>****--autoclose-referenced-issues <autoclose_referenced_issues>**

```
--avatar <avatar>
--build-coverage-regex <build_coverage_regex>
--build-git-strategy <build_git_strategy>
--build-timeout <build_timeout>
--builds-access-level <builds_access_level>
--ci-config-path <ci_config_path>
--container-expiration-policy-attributes <container_expiration_policy_attributes>
--container-registry-access-level <container_registry_access_level>
--container-registry-enabled <container_registry_enabled>
--default-branch <default_branch>
--description <description>
--emails-disabled <emails_disabled>
--external-authorization-classification-label <external_authorization_classification_label>
--forking-access-level <forking_access_level>
--group-with-project-templates-id <group_with_project_templates_id>
--import-url <import_url>
--initialize-with-readme <initialize_with_readme>
--issues-access-level <issues_access_level>
--issues-enabled <issues_enabled>
--jobs-enabled <jobs_enabled>
--lfs-enabled <lfs_enabled>
--merge-method <merge_method>
--merge-pipelines-enabled <merge_pipelines_enabled>
--merge-requests-access-level <merge_requests_access_level>
--merge-requests-enabled <merge_requests_enabled>
--mirror-trigger-builds <mirror_trigger_builds>
--mirror <mirror>
--namespace-id <namespace_id>
--operations-access-level <operations_access_level>
--only-allow-merge-if-all-discussions-are-resolved <only_allow_merge_if_all_discussions_are_resolved>
--only-allow-merge-if-pipeline-succeeds <only_allow_merge_if_pipeline_succeeds>
```

```
--packages-enabled <packages_enabled>
--pages-access-level <pages_access_level>
--requirements-access-level <requirements_access_level>
--printing-merge-request-link-enabled <printing_merge_request_link_enabled>
--public-builds <public_builds>
--releases-access-level <releases_access_level>
--environments-access-level <environments_access_level>
--feature-flags-access-level <feature_flags_access_level>
--infrastructure-access-level <infrastructure_access_level>
--monitor-access-level <monitor_access_level>
--remove-source-branch-after-merge <remove_source_branch_after_merge>
--repository-access-level <repository_access_level>
--repository-storage <repository_storage>
--request-access-enabled <request_access_enabled>
--resolve-outdated-diff-discussions <resolve_outdated_diff_discussions>
--security-and-compliance-access-level <security_and_compliance_access_level>
--shared-runners-enabled <shared_runners_enabled>
--show-default-award-emojis <show_default_award_emojis>
--snippets-access-level <snippets_access_level>
--snippets-enabled <snippets_enabled>
--squash-option <squash_option>
--tag-list <tag_list>
--topics <topics>
--template-name <template_name>
--template-project-id <template_project_id>
--use-custom-template <use_custom_template>
--visibility <visibility>
--wiki-access-level <wiki_access_level>
--wiki-enabled <wiki_enabled>
```

gitlab project create-fork-relation

```
usage: gitlab project create-fork-relation [-h] --id ID --forked-from-id  
                                         FORKED_FROM_ID
```

-h, --help

show this help message and exit

--id <id>

--forked-from-id <forked_from_id>

gitlab project delete

```
usage: gitlab project delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab project delete-fork-relation

```
usage: gitlab project delete-fork-relation [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab project delete-merged-branches

```
usage: gitlab project delete-merged-branches [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab project get

```
usage: gitlab project get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab project housekeeping

```
usage: gitlab project housekeeping [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab project languages

```
usage: gitlab project languages [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab project list

```
usage: gitlab project list [-h] [--sudo SUDO] [--archived ARCHIVED]
                           [--id-after ID_AFTER] [--id-before ID_BEFORE]
                           [--last-activity-after LAST_ACTIVITY_AFTER]
                           [--last-activity-before LAST_ACTIVITY_BEFORE]
                           [--membership MEMBERSHIP]
                           [--min-access-level MIN_ACCESS_LEVEL]
                           [--order-by ORDER_BY] [--owned OWNED]
                           [--repository-checksum-failed REPOSITORY_CHECKSUM_FAILED]
                           [--repository-storage REPOSITORY_STORAGE]
                           [--search-namespaces SEARCH_NAMESPACES]
                           [--search SEARCH] [--simple SIMPLE] [--sort SORT]
                           [--starred STARRED] [--statistics STATISTICS]
                           [--topic TOPIC] [--visibility VISIBILITY]
                           [--wiki-checksum-failed WIKI_CHECKSUM_FAILED]
                           [--with-custom-attributes WITH_CUSTOM_ATTRIBUTES]
                           [--with-issues-enabled WITH_ISSUES_ENABLED]
                           [--with-merge-requests-enabled WITH_MERGE_REQUESTS_ENABLED]
                           [--with-programming-language WITH_PROGRAMMING_LANGUAGE]
                           [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--archived <archived>

--id-after <id_after>

--id-before <id_before>

--last-activity-after <last_activity_after>

```
--last-activity-before <last_activity_before>
--membership <membership>
--min-access-level <min_access_level>
--order-by <order_by>
--owned <owned>
--repository-checksum-failed <repository_checksum_failed>
--repository-storage <repository_storage>
--search-namespaces <search_namespaces>
--search <search>
--simple <simple>
--sort <sort>
--starred <starred>
--statistics <statistics>
--topic <topic>
--visibility <visibility>
--wiki-checksum-failed <wiki_checksum_failed>
--with-custom-attributes <with_custom_attributes>
--with-issues-enabled <with_issues_enabled>
--with-merge-requests-enabled <with_merge_requests_enabled>
--with-programming-language <with_programming_language>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project mirror-pull

```
usage: gitlab project mirror-pull [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab project mirror-pull-details

```
usage: gitlab project mirror-pull-details [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab project repository-archive

```
usage: gitlab project repository-archive [-h] --id ID [--sha SHA]
                                         [--format FORMAT]
```

-h, --help

show this help message and exit

--id <id>

--sha <sha>

--format <format>

gitlab project repository-blob

```
usage: gitlab project repository-blob [-h] --id ID --sha SHA
```

-h, --help

show this help message and exit

--id <id>

--sha <sha>

gitlab project repository-compare

```
usage: gitlab project repository-compare [-h] --id ID --from- FROM_ --to TO
```

-h, --help

show this help message and exit

--id <id>

--from- <from_>

--to <to>

gitlab project repository-contributors

```
usage: gitlab project repository-contributors [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab project repository-merge-base

```
usage: gitlab project repository-merge-base [-h] --id ID --refs REFS
```

-h, --help

show this help message and exit

--id <id>

--refs <refs>

gitlab project repository-raw-blob

```
usage: gitlab project repository-raw-blob [-h] --id ID --sha SHA
```

-h, --help

show this help message and exit

--id <id>

--sha <sha>

gitlab project repository-tree

```
usage: gitlab project repository-tree [-h] --id ID [--path PATH] [--ref REF]
                                     [--recursive RECURSIVE]
```

-h, --help

show this help message and exit

--id <id>

--path <path>

--ref <ref>

--recursive <recursive>

gitlab project restore

```
usage: gitlab project restore [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab project search

```
usage: gitlab project search [-h] --id ID --scope SCOPE --search SEARCH
```

-h, --help

show this help message and exit

--id <id>

--scope <scope>

--search <search>

gitlab project share

```
usage: gitlab project share [-h] --id ID --group-id GROUP_ID --group-access
                           GROUP_ACCESS [--expires-at EXPIRES_AT]
```

-h, --help

show this help message and exit

--id <id>

--group-id <group_id>

--group-access <group_access>

--expires-at <expires_at>

gitlab project snapshot

```
usage: gitlab project snapshot [-h] --id ID [--wiki WIKI]
```

-h, --help

show this help message and exit

--id <id>

--wiki <wiki>

gitlab project star

```
usage: gitlab project star [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab project transfer

```
usage: gitlab project transfer [-h] --id ID --to-namespace TO_NAMESPACE
```

-h, --help

show this help message and exit

--id <id>

--to-namespace <to_namespace>

gitlab project trigger-pipeline

```
usage: gitlab project trigger-pipeline [-h] --id ID --ref REF --token TOKEN
```

-h, --help

show this help message and exit

--id <id>

--ref <ref>

--token <token>

gitlab project unarchive

```
usage: gitlab project unarchive [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab project unshare

```
usage: gitlab project unshare [-h] --id ID --group-id GROUP_ID
```

-h, --help

show this help message and exit

--id <id>

--group-id <group_id>

gitlab project unstar

```
usage: gitlab project unstar [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab project update

```
usage: gitlab project update [-h] [--sudo SUDO] --id ID
                             [--allow-merge-on-skipped-pipeline ALLOW_MERGE_ON_SKIPPED_
                             ↵PIPELINE]
                             [--only-allow-merge-if-all-status-checks-passed ONLY_ALLOW_
                             ↵MERGE_IF_ALL_STATUS_CHECKS_PASSED]
                             [--analytics-access-level ANALYTICS_ACCESS_LEVEL]
                             [--approvals-before-merge APPROVALS_BEFORE_MERGE]
                             [--auto-cancel-pending-pipelines AUTO_CANCEL_PENDING_
                             ↵PIPELINES]
                             [--auto-devops-deploy-strategy AUTO_DEVOPS_DEPLOY_STRATEGY]
                             [--auto-devops-enabled AUTO_DEVOPS_ENABLED]
                             [--autoclose-referenced-issues AUTOCLOSE_REFERENCED_ISSUES]
                             [--avatar AVATAR]
                             [--build-coverage-regex BUILD_COVERAGE_REGEX]
                             [--build-git-strategy BUILD_GIT_STRATEGY]
                             [--build-timeout BUILD_TIMEOUT]
                             [--builds-access-level BUILDS_ACCESS_LEVEL]
                             [--ci-config-path CI_CONFIG_PATH]
                             [--ci-default-git-depth CI_DEFAULT_GIT_DEPTH]
                             [--ci-forward-deployment-enabled CI_FORWARD_DEPLOYMENT_
                             ↵ENABLED]
                             [--ci-allow-fork-pipelines-to-run-in-parent-project CI_
                             ↵ALLOW_FORK_PIPELINES_TO_RUN_IN_PARENT_PROJECT]
                             [--ci-separated-caches CI_SEPARATED_CACHES]
                             [--container-expiration-policy-attributes CONTAINER_
                             ↵EXPIRATION_POLICY_ATTRIBUTES]
                             [--container-registry-access-level CONTAINER_REGISTRY_
                             ↵ACCESS_LEVEL]
                             [--container-registry-enabled CONTAINER_REGISTRY_ENABLED]
```

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```
[--default-branch DEFAULT_BRANCH]
[--description DESCRIPTION]
[--emails-disabled EMAILS_DISABLED]
[--enforce-auth-checks-on-uploads ENFORCE_AUTH_CHECKS_ON_
↳ UPLOADS]
    [--external-authorization-classification-label EXTERNAL_]
    --AUTHORIZATION_CLASSIFICATION_LABEL
        [--forking-access-level FORKING_ACCESS_LEVEL]
        [--import-url IMPORT_URL]
        [--issues-access-level ISSUES_ACCESS_LEVEL]
        [--issues-enabled ISSUES_ENABLED]
        [--issues-template ISSUES_TEMPLATE]
        [--jobs-enabled JOBS_ENABLED]
        [--keep-latest-artifact KEEP_LATEST_ARTIFACT]
        [--lfs-enabled LFS_ENABLED]
        [--merge-commit-template MERGE_COMMIT_TEMPLATE]
        [--merge-method MERGE_METHOD]
        [--merge-pipelines-enabled MERGE_PIPELINES_ENABLED]
        [--merge-requests-access-level MERGE_REQUESTS_ACCESS_LEVEL]
        [--merge-requests-enabled MERGE_REQUESTS_ENABLED]
        [--merge-requests-template MERGE_REQUESTS_TEMPLATE]
        [--merge-trains-enabled MERGE_TRAINS_ENABLED]
        [--mirror-overwrites-diverged-branches MIRROR_OVERWRITES_]
    ↳ DIVERGED_BRANCHES]
        [--mirror-trigger-builds MIRROR_TRIGGER_BUILDS]
        [--mirror-user-id MIRROR_USER_ID]
        [--mirror MIRROR]
        [--mr-default-target-self MR_DEFAULT_TARGET_SELF]
        [--name NAME]
        [--operations-access-level OPERATIONS_ACCESS_LEVEL]
        [--only-allow-merge-if-all-discussions-are-resolved ONLY_
    ↳ ALLOW_MERGE_IF_ALL_DISCUSSIONS_ARE_RESOLVED]
            [--only-allow-merge-if-pipeline-succeeds ONLY_ALLOW_MERGE_
    ↳ IF_PIPELINE_SUCCEEDS]
            [--only-mirror-protected-branches ONLY_MIRROR_PROTECTED_]
    ↳ BRANCHES]
        [--packages-enabled PACKAGES_ENABLED]
        [--pages-access-level PAGES_ACCESS_LEVEL]
        [--requirements-access-level REQUIREMENTS_ACCESS_LEVEL]
        [--restrict-user-defined-variables RESTRICT_USER_DEFINED_]
    ↳ VARIABLES]
        [--path PATH] [--public-builds PUBLIC_BUILD]
        [--releases-access-level RELEASES_ACCESS_LEVEL]
        [--environments-access-level ENVIRONMENTS_ACCESS_LEVEL]
        [--feature-flags-access-level FEATURE_FLAGS_ACCESS_LEVEL]
        [--infrastructure-access-level INFRASTRUCTURE_ACCESS_LEVEL]
        [--monitor-access-level MONITOR_ACCESS_LEVEL]
        [--remove-source-branch-after-merge REMOVE_SOURCE_BRANCH_
    ↳ AFTER_MERGE]
        [--repository-access-level REPOSITORY_ACCESS_LEVEL]
        [--repository-storage REPOSITORY_STORAGE]
        [--request-access-enabled REQUEST_ACCESS_ENABLED]
```

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```

--discussions] [--resolve-outdated-diff-discussions RESOLVE_OUTDATED_DIFF_]
--compliance-access-level] [--security-and-compliance-access-level SECURITY_AND_
                           --service-desk-enabled SERVICE_DESK_ENABLED]
                           [--shared-runners-enabled SHARED_RUNNERS_ENABLED]
                           [--show-default-award-emojis SHOW_DEFAULT_AWARD_EMOJIS]
                           [--snippets-access-level SNIPPETS_ACCESS_LEVEL]
                           [--snippets-enabled SNIPPETS_ENABLED]
                           [--issue-branch-template ISSUE_BRANCH_TEMPLATE]
                           [--squash-commit-template SQUASH_COMMIT_TEMPLATE]
                           [--squash-option SQUASH_OPTION]
                           [--suggestion-commit-message SUGGESTION_COMMIT_MESSAGE]
                           [--tag-list TAG_LIST] [--topics TOPICS]
                           [--visibility VISIBILITY]
                           [--wiki-access-level WIKI_ACCESS_LEVEL]
                           [--wiki-enabled WIKI_ENABLED]

```

-h, --help

show this help message and exit

--sudo <sudo>**--id <id>****--allow-merge-on-skipped-pipeline <allow_merge_on_skipped_pipeline>****--only-allow-merge-if-all-status-checks-passed <only_allow_merge_if_all_status_checks_passed>****--analytics-access-level <analytics_access_level>****--approvals-before-merge <approvals_before_merge>****--auto-cancel-pending-pipelines <auto_cancel_pending_pipelines>****--auto-devops-deploy-strategy <auto_devops_deploy_strategy>****--auto-devops-enabled <auto_devops_enabled>****--autoclose-referenced-issues <autoclose_referenced_issues>****--avatar <avatar>****--build-coverage-regex <build_coverage_regex>****--build-git-strategy <build_git_strategy>****--build-timeout <build_timeout>****--builds-access-level <builds_access_level>****--ci-config-path <ci_config_path>****--ci-default-git-depth <ci_default_git_depth>****--ci-forward-deployment-enabled <ci_forward_deployment_enabled>**

```
--ci-allow-fork-pipelines-to-run-in-parent-project <ci_allow_fork_pipelines_to_run_in_parent_project>
--ci-separated-caches <ci_separated_caches>
--container-expiration-policy-attributes <container_expiration_policy_attributes>
--container-registry-access-level <container_registry_access_level>
--container-registry-enabled <container_registry_enabled>
--default-branch <default_branch>
--description <description>
--emails-disabled <emails_disabled>
--enforce-auth-checks-on-uploads <enforce_auth_checks_on_uploads>
--external-authorization-classification-label <external_authorization_classification_label>
--forking-access-level <forking_access_level>
--import-url <import_url>
--issues-access-level <issues_access_level>
--issues-enabled <issues_enabled>
--issues-template <issues_template>
--jobs-enabled <jobs_enabled>
--keep-latest-artifact <keep_latest_artifact>
--lfs-enabled <lfs_enabled>
--merge-commit-template <merge_commit_template>
--merge-method <merge_method>
--merge-pipelines-enabled <merge_pipelines_enabled>
--merge-requests-access-level <merge_requests_access_level>
--merge-requests-enabled <merge_requests_enabled>
--merge-requests-template <merge_requests_template>
--merge-trains-enabled <merge_trains_enabled>
--mirror-overwrites-diverged-branches <mirror_overwrites_diverged_branches>
--mirror-trigger-builds <mirror_trigger_builds>
--mirror-user-id <mirror_user_id>
--mirror <mirror>
--mr-default-target-self <mr_default_target_self>
--name <name>
```

```
--operations-access-level <operations_access_level>
--only-allow-merge-if-all-discussions-are-resolved <only_allow_merge_if_all_discussions_are_resolved>
--only-allow-merge-if-pipeline-succeeds <only_allow_merge_if_pipeline_succeeds>
--only-mirror-protected-branches <only_mirror_protected_branches>
--packages-enabled <packages_enabled>
--pages-access-level <pages_access_level>
--requirements-access-level <requirements_access_level>
--restrict-user-defined-variables <restrict_user_defined_variables>
--path <path>
--public-builds <public_builds>
--releases-access-level <releases_access_level>
--environments-access-level <environments_access_level>
--feature-flags-access-level <feature_flags_access_level>
--infrastructure-access-level <infrastructure_access_level>
--monitor-access-level <monitor_access_level>
--remove-source-branch-after-merge <remove_source_branch_after_merge>
--repository-access-level <repository_access_level>
--repository-storage <repository_storage>
--request-access-enabled <request_access_enabled>
--resolve-outdated-diff-discussions <resolve_outdated_diff_discussions>
--security-and-compliance-access-level <security_and_compliance_access_level>
--service-desk-enabled <service_desk_enabled>
--shared-runners-enabled <shared_runners_enabled>
--show-default-award-emojis <show_default_award_emojis>
--snippets-access-level <snippets_access_level>
--snippets-enabled <snippets_enabled>
--issue-branch-template <issue_branch_template>
--squash-commit-template <squash_commit_template>
--squash-option <squash_option>
--suggestion-commit-message <suggestion_commit_message>
--tag-list <tag_list>
```

```
--topics <topics>
--visibility <visibility>
--wiki-access-level <wiki_access_level>
--wiki-enabled <wiki_enabled>
```

gitlab project update-submodule

```
usage: gitlab project update-submodule [-h] --id ID --submodule SUBMODULE
                                         --branch BRANCH --commit-sha COMMIT_SHA
```

```
-h, --help
    show this help message and exit

--id <id>

--submodule <submodule>

--branch <branch>

--commit-sha <commit_sha>
```

gitlab project upload

```
usage: gitlab project upload [-h] --id ID --filename FILENAME --filepath
                             FILEPATH
```

```
-h, --help
    show this help message and exit

--id <id>

--filename <filename>

--filepath <filepath>
```

gitlab project-access-request

```
usage: gitlab project-access-request [-h] {list,create,delete,approve} ...
```

```
-h, --help
    show this help message and exit
```

gitlab project-access-request approve

```
usage: gitlab project-access-request approve [-h] --project-id PROJECT_ID  
                                              [--sudo SUDO] --id ID  
                                              [--access-level ACCESS_LEVEL]
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

--access-level <access_level>

gitlab project-access-request create

```
usage: gitlab project-access-request create [-h] [--sudo SUDO] --project-id  
                                             PROJECT_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

gitlab project-access-request delete

```
usage: gitlab project-access-request delete [-h] [--sudo SUDO] --project-id  
                                             PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-access-request list

```
usage: gitlab project-access-request list [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID [--page PAGE]  
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-access-token

```
usage: gitlab project-access-token [-h] {list,get,create,delete} ...
```

```
-h, --help
    show this help message and exit
```

gitlab project-access-token create

```
usage: gitlab project-access-token create [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --name NAME --scopes
                                         SCOPES [--access-level ACCESS_LEVEL]
                                         [--expires-at EXPIRES_AT]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--name <name>
--scopes <scopes>
--access-level <access_level>
--expires-at <expires_at>
```

gitlab project-access-token delete

```
usage: gitlab project-access-token delete [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--id <id>
```

gitlab project-access-token get

```
usage: gitlab project-access-token get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-access-token list

```
usage: gitlab project-access-token list [-h] [--sudo SUDO] --project-id  
PROJECT_ID [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-additional-statistics

```
usage: gitlab project-additional-statistics [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab project-additional-statistics get

```
usage: gitlab project-additional-statistics get [-h] [--sudo SUDO]  
--project-id PROJECT_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

gitlab project-approval

```
usage: gitlab project-approval [-h] {get,update} ...
```

-h, --help

show this help message and exit

gitlab project-approval get

```
usage: gitlab project-approval get [-h] [--sudo SUDO] --project-id PROJECT_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

gitlab project-approval update

```
usage: gitlab project-approval update [-h] [--sudo SUDO] --project-id
PROJECT_ID
[--approvals-before-merge APPROVALS_BEFORE_MERGE]
[--reset-approvals-on-push RESET_APPROVALS_ON_PUSH]
[--disable-overriding-approvers-per-merge-request
DISABLE_OVERRIDING_APPROVERS_PER_MERGE_REQUEST]
[--merge-requests-author-approval MERGE_REQUESTS_
AUTHOR_APPROVAL]
[--merge-requests-disable-committers-approval
MERGE_REQUESTS_DISABLE_COMMITTERS_APPROVAL]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--approvals-before-merge <approvals_before_merge>

--reset-approvals-on-push <reset_approvals_on_push>

--disable-overriding-approvers-per-merge-request <disable_overriding_approvers_per_merge_request>

--merge-requests-author-approval <merge_requests_author_approval>

--merge-requests-disable-committers-approval <merge_requests_disable_committers_approval>

gitlab project-approval-rule

```
usage: gitlab project-approval-rule [-h] {list,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-approval-rule create

```
usage: gitlab project-approval-rule create [-h] [--sudo SUDO] --project-id
                                             PROJECT_ID --name NAME
                                             --approvals-required
                                             APPROVALS_REQUIRED
                                             [--user-ids USER_IDS]
                                             [--group-ids GROUP_IDS]
                                             [--protected-branch-ids PROTECTED_BRANCH_IDS]
                                             [--usernames USERNAMES]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

--approvals-required <approvals_required>

--user-ids <user_ids>

--group-ids <group_ids>

--protected-branch-ids <protected_branch_ids>

--usernames <usernames>

gitlab project-approval-rule delete

```
usage: gitlab project-approval-rule delete [-h] [--sudo SUDO] --project-id
                                             PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-approval-rule list

```
usage: gitlab project-approval-rule list [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID [--page PAGE]  
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-approval-rule update

```
usage: gitlab project-approval-rule update [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-artifact

```
usage: gitlab project-artifact [-h] {delete,download,raw} ...
```

-h, --help

show this help message and exit

gitlab project-artifact delete

```
usage: gitlab project-artifact delete [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --ref-name REF_NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--ref-name <ref_name>

gitlab project-artifact download

```
usage: gitlab project-artifact download [-h] --project-id PROJECT_ID  
                                      [--sudo SUDO] --ref-name REF_NAME  
                                      --job JOB [--job-token JOB_TOKEN]
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--ref-name <ref_name>

--job <job>

--job-token <job_token>

gitlab project-artifact raw

```
usage: gitlab project-artifact raw [-h] --project-id PROJECT_ID [--sudo SUDO]  
                                      --ref-name REF_NAME --artifact-path  
                                      ARTIFACT_PATH --job JOB
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--ref-name <ref_name>

--artifact-path <artifact_path>

--job <job>

gitlab project-audit-event

```
usage: gitlab project-audit-event [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab project-audit-event get

```
usage: gitlab project-audit-event get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-audit-event list

```
usage: gitlab project-audit-event list [-h] [--sudo SUDO] --project-id  
PROJECT_ID  
[--created-after CREATED_AFTER]  
[--created-before CREATED_BEFORE]  
[--page PAGE] [--per-page PER_PAGE]  
[--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--created-after <created_after>

--created-before <created_before>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-badge

```
usage: gitlab project-badge [-h] {list,get,create,update,delete,render} ...
```

-h, --help

show this help message and exit

gitlab project-badge create

```
usage: gitlab project-badge create [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                  --link-url LINK_URL --image-url IMAGE_URL
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--link-url <link_url>

--image-url <image_url>

gitlab project-badge delete

```
usage: gitlab project-badge delete [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                  --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-badge get

```
usage: gitlab project-badge get [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                 --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-badge list

```
usage: gitlab project-badge list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                 [--page PAGE] [--per-page PER_PAGE]
                                 [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-badge render

```
usage: gitlab project-badge render [-h] --project-id PROJECT_ID [--sudo SUDO]
                                   --id ID --link-url LINK_URL --image-url
                                   IMAGE_URL
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

--link-url <link_url>

--image-url <image_url>

gitlab project-badge update

```
usage: gitlab project-badge update [-h] [--sudo SUDO] --project-id PROJECT_ID
                                   --id ID [--link-url LINK_URL]
                                   [--image-url IMAGE_URL]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

```
--link-url <link_url>  
--image-url <image_url>
```

gitlab project-board

```
usage: gitlab project-board [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-board create

```
usage: gitlab project-board create [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                  --name NAME
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--name <name>
```

gitlab project-board delete

```
usage: gitlab project-board delete [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                  --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--id <id>
```

gitlab project-board get

```
usage: gitlab project-board get [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                 --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--id <id>
```

gitlab project-board list

```
usage: gitlab project-board list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                 [--page PAGE] [--per-page PER_PAGE]
                                 [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-board update

```
usage: gitlab project-board update [-h] [--sudo SUDO] --project-id PROJECT_ID
                                   --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-board-list

```
usage: gitlab project-board-list [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-board-list create

```
usage: gitlab project-board-list create [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --board-id BOARD_ID
                                         [--label-id LABEL_ID | --assignee-id ASSIGNEE_ID]
                                         ↵ | --milestone-id MILESTONE_ID]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--board-id <board_id>
--label-id <label_id>
--assignee-id <assignee_id>
--milestone-id <milestone_id>
```

gitlab project-board-list delete

```
usage: gitlab project-board-list delete [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --board-id BOARD_ID --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--board-id <board_id>
--id <id>
```

gitlab project-board-list get

```
usage: gitlab project-board-list get [-h] [--sudo SUDO] --project-id
                                      PROJECT_ID --board-id BOARD_ID --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--board-id <board_id>
--id <id>
```

gitlab project-board-list list

```
usage: gitlab project-board-list list [-h] [--sudo SUDO] --project-id
                                       PROJECT_ID --board-id BOARD_ID
                                       [--page PAGE] [--per-page PER_PAGE]
                                       [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--board-id <board_id>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-board-list update

```
usage: gitlab project-board-list update [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --board-id BOARD_ID --id ID
                                         --position POSITION
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--board-id <board_id>
--id <id>
--position <position>
```

gitlab project-branch

```
usage: gitlab project-branch [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab project-branch create

```
usage: gitlab project-branch create [-h] [--sudo SUDO] --project-id PROJECT_ID
                                     --branch BRANCH --ref REF
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--branch <branch>
--ref <ref>
```

gitlab project-branch delete

```
usage: gitlab project-branch delete [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                    --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-branch get

```
usage: gitlab project-branch get [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                    --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-branch list

```
usage: gitlab project-branch list [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                    [--page PAGE] [--per-page PER_PAGE]  
                                    [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-ci-lint

```
usage: gitlab project-ci-lint [-h] {get,create,validate} ...
```

-h, --help

show this help message and exit

gitlab project-ci-lint create

```
usage: gitlab project-ci-lint create [-h] [--sudo SUDO] --project-id
                                     PROJECT_ID --content CONTENT
                                     [--dry-run DRY_RUN]
                                     [--include-jobs INCLUDE_JOBS] [--ref REF]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--content <content>

--dry-run <dry_run>

--include-jobs <include_jobs>

--ref <ref>

gitlab project-ci-lint get

```
usage: gitlab project-ci-lint get [-h] [--sudo SUDO] --project-id PROJECT_ID
                                   [--dry-run DRY_RUN]
                                   [--include-jobs INCLUDE_JOBS] [--ref REF]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--dry-run <dry_run>

--include-jobs <include_jobs>

--ref <ref>

gitlab project-ci-lint validate

```
usage: gitlab project-ci-lint validate [-h] --project-id PROJECT_ID
                                         [--sudo SUDO] --content CONTENT
                                         [--dry-run DRY_RUN]
                                         [--include-jobs INCLUDE_JOBS]
                                         [--ref REF]
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--content <content>

--dry-run <dry_run>

--include-jobs <include_jobs>

--ref <ref>

gitlab project-cluster

```
usage: gitlab project-cluster [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-cluster create

```
usage: gitlab project-cluster create [-h] [--sudo SUDO] --project-id
                                      PROJECT_ID --name NAME
                                      --platform-kubernetes-attributes
                                      PLATFORM_KUBERNETES_ATTRIBUTES
                                      [--domain DOMAIN] [--enabled ENABLED]
                                      [--managed MANAGED]
                                      [--environment-scope ENVIRONMENT_SCOPE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

--platform-kubernetes-attributes <platform_kubernetes_attributes>

--domain <domain>

```
--enabled <enabled>
--managed <managed>
--environment-scope <environment_scope>
```

gitlab project-cluster delete

```
usage: gitlab project-cluster delete [-h] [--sudo SUDO] --project-id
                                     PROJECT_ID --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--id <id>
```

gitlab project-cluster get

```
usage: gitlab project-cluster get [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--id <id>
```

gitlab project-cluster list

```
usage: gitlab project-cluster list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                    [--page PAGE] [--per-page PER_PAGE]
                                    [--get-all]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--page <page>
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab project-cluster update

```
usage: gitlab project-cluster update [-h] [--sudo SUDO] --project-id
                                     PROJECT_ID --id ID [--name NAME]
                                     [--domain DOMAIN]
                                     [--management-project-id MANAGEMENT_PROJECT_ID]
                                     [--platform-kubernetes-attributes PLATFORM_
                                     ↵KUBERNETES_ATTRIBUTES]
                                     [--environment-scope ENVIRONMENT_SCOPE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

--name <name>

--domain <domain>

--management-project-id <management_project_id>

--platform-kubernetes-attributes <platform_kubernetes_attributes>

--environment-scope <environment_scope>

gitlab project-commit

```
usage: gitlab project-commit [-h]
  list
  get
  create
  diff
  cherry-pick
  refs
  merge-requests
  revert
  signature
  ...
```

-h, --help

show this help message and exit

gitlab project-commit cherry-pick

```
usage: gitlab project-commit cherry-pick [-h] --project-id PROJECT_ID  
                                         [--sudo SUDO] --id ID --branch BRANCH
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

--branch <branch>

gitlab project-commit create

```
usage: gitlab project-commit create [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                     --branch BRANCH --commit-message  
                                     COMMIT_MESSAGE --actions ACTIONS  
                                     [--author-email AUTHOR_EMAIL]  
                                     [--author-name AUTHOR_NAME]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--branch <branch>

--commit-message <commit_message>

--actions <actions>

--author-email <author_email>

--author-name <author_name>

gitlab project-commit diff

```
usage: gitlab project-commit diff [-h] --project-id PROJECT_ID [--sudo SUDO]  
                                 --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-commit get

```
usage: gitlab project-commit get [-h] [--sudo SUDO] --project-id PROJECT_ID
                                 --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-commit list

```
usage: gitlab project-commit list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                   [--all ALL] [--ref-name REF_NAME]
                                   [--since SINCE] [--until UNTIL]
                                   [--path PATH] [--with-stats WITH_STATS]
                                   [--first-parent FIRST_PARENT]
                                   [--order ORDER] [--trailers TRAILERS]
                                   [--page PAGE] [--per-page PER_PAGE]
                                   [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--all <all>

--ref-name <ref_name>

--since <since>

--until <until>

--path <path>

--with-stats <with_stats>

--first-parent <first_parent>

--order <order>

--trailers <trailers>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-commit merge-requests

```
usage: gitlab project-commit merge-requests [-h] --project-id PROJECT_ID  
                                         [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-commit refs

```
usage: gitlab project-commit refs [-h] --project-id PROJECT_ID [--sudo SUDO]  
                                   --id ID [--type TYPE]
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

--type <type>

gitlab project-commit revert

```
usage: gitlab project-commit revert [-h] --project-id PROJECT_ID [--sudo SUDO]  
                                   --id ID --branch BRANCH
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

--branch <branch>

gitlab project-commit signature

```
usage: gitlab project-commit signature [-h] --project-id PROJECT_ID  
                                      [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-commit-comment

```
usage: gitlab project-commit-comment [-h] {list,create} ...
```

-h, --help

show this help message and exit

gitlab project-commit-comment create

```
usage: gitlab project-commit-comment create [-h] [--sudo SUDO] --project-id  
                                             PROJECT_ID --commit-id COMMIT_ID  
                                             --note NOTE [--path PATH]  
                                             [--line LINE]  
                                             [--line-type LINE_TYPE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--commit-id <commit_id>

--note <note>

--path <path>

--line <line>

--line-type <line_type>

gitlab project-commit-comment list

```
usage: gitlab project-commit-comment list [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --commit-id COMMIT_ID  
                                         [--page PAGE] [--per-page PER_PAGE]  
                                         [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--commit-id <commit_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-commit-discussion

```
usage: gitlab project-commit-discussion [-h] {list,get,create} ...
```

-h, --help

show this help message and exit

gitlab project-commit-discussion create

```
usage: gitlab project-commit-discussion create [-h] [--sudo SUDO] --project-id  
                                               PROJECT_ID --commit-id  
                                               COMMIT_ID --body BODY  
                                               [--created-at CREATED_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--commit-id <commit_id>

--body <body>

--created-at <created_at>

gitlab project-commit-discussion get

```
usage: gitlab project-commit-discussion get [-h] [--sudo SUDO] --project-id  
                                PROJECT_ID --commit-id COMMIT_ID  
                                --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--commit-id <commit_id>

--id <id>

gitlab project-commit-discussion list

```
usage: gitlab project-commit-discussion list [-h] [--sudo SUDO] --project-id  
                                PROJECT_ID --commit-id COMMIT_ID  
                                [--page PAGE]  
                                [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--commit-id <commit_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-commit-discussion-note

```
usage: gitlab project-commit-discussion-note [-h]  
      get  
      create  
      update  
      delete  
      ...
```

-h, --help

show this help message and exit

gitlab project-commit-discussion-note create

```
usage: gitlab project-commit-discussion-note create [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --commit-id COMMIT_ID
                                                    --discussion-id
                                                    DISCUSSION_ID --body BODY
                                                    [--created-at CREATED_AT]
                                                    [--position POSITION]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--commit-id <commit_id>

--discussion-id <discussion_id>

--body <body>

--created-at <created_at>

--position <position>

gitlab project-commit-discussion-note delete

```
usage: gitlab project-commit-discussion-note delete [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --commit-id COMMIT_ID
                                                    --discussion-id
                                                    DISCUSSION_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--commit-id <commit_id>

--discussion-id <discussion_id>

--id <id>

gitlab project-commit-discussion-note get

```
usage: gitlab project-commit-discussion-note get [-h] [--sudo SUDO]
                                                --project-id PROJECT_ID
                                                --commit-id COMMIT_ID
                                                --discussion-id DISCUSSION_ID
                                                --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--commit-id <commit_id>

--discussion-id <discussion_id>

--id <id>

gitlab project-commit-discussion-note update

```
usage: gitlab project-commit-discussion-note update [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --commit-id COMMIT_ID
                                                    --discussion-id
                                                    DISCUSSION_ID --id ID
                                                    --body BODY
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--commit-id <commit_id>

--discussion-id <discussion_id>

--id <id>

--body <body>

gitlab project-commit-status

```
usage: gitlab project-commit-status [-h] {list,create} ...
```

-h, --help

show this help message and exit

gitlab project-commit-status create

```
usage: gitlab project-commit-status create [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --commit-id COMMIT_ID
                                         --state STATE
                                         [--description DESCRIPTION]
                                         [--name NAME] [--context CONTEXT]
                                         [--ref REF]
                                         [--target-url TARGET_URL]
                                         [--coverage COVERAGE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--commit-id <commit_id>

--state <state>

--description <description>

--name <name>

--context <context>

--ref <ref>

--target-url <target_url>

--coverage <coverage>

gitlab project-commit-status list

```
usage: gitlab project-commit-status list [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --commit-id COMMIT_ID
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--commit-id <commit_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-custom-attribute

```
usage: gitlab project-custom-attribute [-h] {list,get,delete} ...
```

-h, --help

show this help message and exit

gitlab project-custom-attribute delete

```
usage: gitlab project-custom-attribute delete [-h] [--sudo SUDO] --project-id  
PROJECT_ID --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>**--project-id <project_id>****--key <key>****gitlab project-custom-attribute get**

```
usage: gitlab project-custom-attribute get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>**--project-id <project_id>****--key <key>****gitlab project-custom-attribute list**

```
usage: gitlab project-custom-attribute list [-h] [--sudo SUDO] --project-id  
PROJECT_ID [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>**--project-id <project_id>****--page <page>****--per-page <per_page>****--get-all**

Return all items from the server, without pagination.

gitlab project-deploy-token

```
usage: gitlab project-deploy-token [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab project-deploy-token create

```
usage: gitlab project-deploy-token create [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --name NAME --scopes
                                         SCOPES [--expires-at EXPIRES_AT]
                                         [--username USERNAME]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

--scopes <scopes>

--expires-at <expires_at>

--username <username>

gitlab project-deploy-token delete

```
usage: gitlab project-deploy-token delete [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-deploy-token get

```
usage: gitlab project-deploy-token get [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

```
--project-id <project_id>
--id <id>
```

gitlab project-deploy-token list

```
usage: gitlab project-deploy-token list [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID [--scopes SCOPES]
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--scopes <scopes>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-deployment

```
usage: gitlab project-deployment [-h] {list,get,create,update,approval} ...
```

-h, --help

show this help message and exit

gitlab project-deployment approval

```
usage: gitlab project-deployment approval [-h] --project-id PROJECT_ID
                                         [--sudo SUDO] --id ID --status
                                         STATUS [--comment COMMENT]
                                         [--represented-as REPRESENTED_AS]
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

--status <status>

--comment <comment>

--represented-as <represented_as>

gitlab project-deployment create

```
usage: gitlab project-deployment create [-h] [--sudo SUDO] --project-id  
PROJECT_ID --sha SHA --ref REF --tag  
TAG --status STATUS --environment  
ENVIRONMENT
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--sha <sha>

--ref <ref>

--tag <tag>

--status <status>

--environment <environment>

gitlab project-deployment get

```
usage: gitlab project-deployment get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-deployment list

```
usage: gitlab project-deployment list [-h] [--sudo SUDO] --project-id  
PROJECT_ID [--order-by ORDER_BY]  
[--sort SORT]  
[--updated-after UPDATED_AFTER]  
[--updated-before UPDATED_BEFORE]  
[--environment ENVIRONMENT]  
[--status STATUS] [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

```
--project-id <project_id>
--order-by <order_by>
--sort <sort>
--updated-after <updated_after>
--updated-before <updated_before>
--environment <environment>
--status <status>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-deployment update

```
usage: gitlab project-deployment update [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--id <id>
```

gitlab project-deployment-merge-request

```
usage: gitlab project-deployment-merge-request [-h] {list} ...
```

```
-h, --help
    show this help message and exit
```

gitlab project-deployment-merge-request list

```
usage: gitlab project-deployment-merge-request list [-h] [--sudo SUDO]
                                                     --deployment-id
                                                     DEPLOYMENT_ID --project-id
                                                     PROJECT_ID [--state STATE]
                                                     [--order-by ORDER_BY]
                                                     [--sort SORT]
                                                     [--milestone MILESTONE]
                                                     [--view VIEW]
                                                     [--labels LABELS]
```

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```
--DETAILS]
--MERGE_STATUS_RECHECK]
--USERNAME]
--EMOJI]

[--with-labels-details WITH_LABELS_DETAILS]
[--with-merge-status-recheck WITH_MERGE_STATUS_RECHECK]
[--created-after CREATED_AFTER]
[--created-before CREATED_BEFORE]
[--updated-after UPDATED_AFTER]
[--updated-before UPDATED_BEFORE]
[--scope SCOPE]
[--author-id AUTHOR_ID]
[--author-username AUTHOR_USERNAME]
[--assignee-id ASSIGNEE_ID]
[--approver-ids APPROVER_IDS]
[--approved-by-ids APPROVED_BY_IDS]
[--reviewer-id REVIEWER_ID]
[--reviewer-username REVIEWER_USERNAME]
[--my-reaction-emoji MY_REACTION_EMOJI]
[--source-branch SOURCE_BRANCH]
[--target-branch TARGET_BRANCH]
[--search SEARCH]
[--in IN] [--wip WIP]
[--not NOT]
[--environment ENVIRONMENT]
[--deployed-before DEPLOYED_BEFORE]
[--deployed-after DEPLOYED_AFTER]
[--page PAGE]
[--per-page PER_PAGE]
[--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--deployment-id <deployment id>

--project-id <project id>

--state <state>

--order-by <order by>

--sort <sort>

--milestone <1>

--view <view>

--labels <lab>

--with-labels-det

--with-merge-status-recheck <with merge sta

```
--created-after <created_after>
--created-before <created_before>
--updated-after <updated_after>
--updated-before <updated_before>
--scope <scope>
--author-id <author_id>
--author-username <author_username>
--assignee-id <assignee_id>
--approver-ids <approver_ids>
--approved-by-ids <approved_by_ids>
--reviewer-id <reviewer_id>
--reviewer-username <reviewer_username>
--my-reaction-emoji <my_reaction_emoji>
--source-branch <source_branch>
--target-branch <target_branch>
--search <search>
--in <in>
--wip <wip>
--not <not>
--environment <environment>
--deployed-before <deployed_before>
--deployed-after <deployed_after>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-environment

```
usage: gitlab project-environment [-h]
    list
    get
    create
    update
```

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```
delete  
stop  
...
```

-h, --help

show this help message and exit

gitlab project-environment create

```
usage: gitlab project-environment create [-h] [--sudo SUDO] --project-id  
PROJECT_ID --name NAME  
[--external-url EXTERNAL_URL]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

--external-url <external_url>

gitlab project-environment delete

```
usage: gitlab project-environment delete [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-environment get

```
usage: gitlab project-environment get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-environment list

```
usage: gitlab project-environment list [-h] [--sudo SUDO] --project-id  
PROJECT_ID [--name NAME]  
[--search SEARCH] [--states STATES]  
[--page PAGE] [--per-page PER_PAGE]  
[--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

--search <search>

--states <states>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-environment stop

```
usage: gitlab project-environment stop [-h] --project-id PROJECT_ID  
[--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-environment update

```
usage: gitlab project-environment update [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID [--name NAME]  
[--external-url EXTERNAL_URL]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

```
--id <id>
--name <name>
--external-url <external_url>
```

gitlab project-event

```
usage: gitlab project-event [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab project-event list

```
usage: gitlab project-event list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  [--action ACTION] [--target-type TARGET_TYPE]
                                  [--before BEFORE] [--after AFTER]
                                  [--sort SORT] [--scope SCOPE] [--page PAGE]
                                  [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--action <action>

--target-type <target_type>

--before <before>

--after <after>

--sort <sort>

--scope <scope>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-export

```
usage: gitlab project-export [-h] {get,create,download} ...
```

-h, --help

show this help message and exit

gitlab project-export create

```
usage: gitlab project-export create [-h] [--sudo SUDO] --project-id PROJECT_ID
                                   [--description DESCRIPTION]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--description <description>

gitlab project-export download

```
usage: gitlab project-export download [-h] --project-id PROJECT_ID
                                       [--sudo SUDO]
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

gitlab project-export get

```
usage: gitlab project-export get [-h] [--sudo SUDO] --project-id PROJECT_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

gitlab project-file

```
usage: gitlab project-file [-h] {get,create,update,delete,raw,blame} ...
```

-h, --help

show this help message and exit

gitlab project-file blame

```
usage: gitlab project-file blame [-h] --project-id PROJECT_ID [--sudo SUDO]
                                 --file-path FILE_PATH --ref REF
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--file-path <file_path>

--ref <ref>

gitlab project-file create

```
usage: gitlab project-file create [-h] --project-id PROJECT_ID [--sudo SUDO]
                                 --file-path FILE_PATH --branch BRANCH
                                 --content CONTENT --commit-message
                                 COMMIT_MESSAGE [--encoding ENCODING]
                                 [--author-email AUTHOR_EMAIL]
                                 [--author-name AUTHOR_NAME]
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--file-path <file_path>

--branch <branch>

--content <content>

--commit-message <commit_message>

--encoding <encoding>

--author-email <author_email>

--author-name <author_name>

gitlab project-file delete

```
usage: gitlab project-file delete [-h] --project-id PROJECT_ID [--sudo SUDO]
                                  --file-path FILE_PATH --branch BRANCH
                                  --commit-message COMMIT_MESSAGE
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--file-path <file_path>

--branch <branch>

--commit-message <commit_message>

gitlab project-file get

```
usage: gitlab project-file get [-h] --project-id PROJECT_ID [--sudo SUDO]
                               --file-path FILE_PATH --ref REF
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--file-path <file_path>

--ref <ref>

gitlab project-file raw

```
usage: gitlab project-file raw [-h] --project-id PROJECT_ID [--sudo SUDO]
                               --file-path FILE_PATH --ref REF
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--file-path <file_path>

--ref <ref>

gitlab project-file update

```
usage: gitlab project-file update [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  --file-path FILE_PATH --branch BRANCH
                                  --content CONTENT --commit-message
                                  COMMIT_MESSAGE [--encoding ENCODING]
                                  [--author-email AUTHOR_EMAIL]
                                  [--author-name AUTHOR_NAME]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--file-path <file_path>

--branch <branch>

--content <content>

--commit-message <commit_message>

--encoding <encoding>

--author-email <author_email>

--author-name <author_name>

gitlab project-fork

```
usage: gitlab project-fork [-h] {list,create} ...
```

-h, --help

show this help message and exit

gitlab project-fork create

```
usage: gitlab project-fork create [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  [--namespace NAMESPACE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--namespace <namespace>

gitlab project-fork list

```
usage: gitlab project-fork list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                [--archived ARCHIVED]
                                [--visibility VISIBILITY]
                                [--order-by ORDER_BY] [--sort SORT]
                                [--search SEARCH] [--simple SIMPLE]
                                [--owned OWNED] [--membership MEMBERSHIP]
                                [--starred STARRED] [--statistics STATISTICS]
                                [--with-custom-attributes WITH_CUSTOM_ATTRIBUTES]
                                [--with-issues-enabled WITH_ISSUES_ENABLED]
                                [--with-merge-requests-enabled WITH_MERGE_REQUESTS_
                                ↪ENABLED]
                                [--page PAGE] [--per-page PER_PAGE]
                                [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--archived <archived>

--visibility <visibility>

--order-by <order_by>

--sort <sort>

--search <search>

--simple <simple>

--owned <owned>

--membership <membership>

--starred <starred>

--statistics <statistics>

--with-custom-attributes <with_custom_attributes>

--with-issues-enabled <with_issues_enabled>

--with-merge-requests-enabled <with_merge_requests_enabled>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-hook

```
usage: gitlab project-hook [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-hook create

```
usage: gitlab project-hook create [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  --url URL [--push-events PUSH_EVENTS]
                                  [--issues-events ISSUES_EVENTS]
                                  [--confidential-issues-events CONFIDENTIAL_ISSUES_
                                  EVENTS]
                                  [--merge-requests-events MERGE_REQUESTS_EVENTS]
                                  [--tag-push-events TAG_PUSH_EVENTS]
                                  [--note-events NOTE_EVENTS]
                                  [--job-events JOB_EVENTS]
                                  [--pipeline-events PIPELINE_EVENTS]
                                  [--wiki-page-events WIKI_PAGE_EVENTS]
                                  [--enable-ssl-verification ENABLE_SSL_VERIFICATION]
                                  [--token TOKEN]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--url <url>

--push-events <push_events>

--issues-events <issues_events>

--confidential-issues-events <confidential_issues_events>

--merge-requests-events <merge_requests_events>

--tag-push-events <tag_push_events>

--note-events <note_events>

--job-events <job_events>

--pipeline-events <pipeline_events>

--wiki-page-events <wiki_page_events>

--enable-ssl-verification <enable_ssl_verification>

--token <token>

gitlab project-hook delete

```
usage: gitlab project-hook delete [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                 --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-hook get

```
usage: gitlab project-hook get [-h] [--sudo SUDO] --project-id PROJECT_ID --id  
                               ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-hook list

```
usage: gitlab project-hook list [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                [--page PAGE] [--per-page PER_PAGE]  
                                [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-hook update

```
usage: gitlab project-hook update [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  --id ID --url URL
                                  [--push-events PUSH_EVENTS]
                                  [--issues-events ISSUES_EVENTS]
                                  [--confidential-issues-events CONFIDENTIAL_ISSUES_
→EVENTS]
                                  [--merge-requests-events MERGE_REQUESTS_EVENTS]
                                  [--tag-push-events TAG_PUSH_EVENTS]
                                  [--note-events NOTE_EVENTS]
                                  [--job-events JOB_EVENTS]
                                  [--pipeline-events PIPELINE_EVENTS]
                                  [--wiki-events WIKI_EVENTS]
                                  [--enable-ssl-verification ENABLE_SSL_VERIFICATION]
                                  [--token TOKEN]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

--url <url>

--push-events <push_events>

--issues-events <issues_events>

--confidential-issues-events <confidential_issues_events>

--merge-requests-events <merge_requests_events>

--tag-push-events <tag_push_events>

--note-events <note_events>

--job-events <job_events>

--pipeline-events <pipeline_events>

--wiki-events <wiki_events>

--enable-ssl-verification <enable_ssl_verification>

--token <token>

gitlab project-import

```
usage: gitlab project-import [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab project-import get

```
usage: gitlab project-import get [-h] [--sudo SUDO] --project-id PROJECT_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

gitlab project-integration

```
usage: gitlab project-integration [-h] {list,get,update,delete,available} ...
```

-h, --help

show this help message and exit

gitlab project-integration available

```
usage: gitlab project-integration available [-h] --project-id PROJECT_ID  
                                         [--sudo SUDO] --slug SLUG
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--slug <slug>

gitlab project-integration delete

```
usage: gitlab project-integration delete [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --slug SLUG
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--slug <slug>

gitlab project-integration get

```
usage: gitlab project-integration get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --slug SLUG
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--slug <slug>

gitlab project-integration list

```
usage: gitlab project-integration list [-h] [--sudo SUDO] --project-id  
PROJECT_ID [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-integration update

```
usage: gitlab project-integration update [-h] [--sudo SUDO] --project-id  
PROJECT_ID --slug SLUG
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--slug <slug>

gitlab project-invitation

```
usage: gitlab project-invitation [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-invitation create

```
usage: gitlab project-invitation create [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --access-level ACCESS_LEVEL
                                         [--expires-at EXPIRES_AT]
                                         [--invite-source INVITE_SOURCE]
                                         [--tasks-to-be-done TASKS_TO_BE_DONE]
                                         [--tasks-project-id TASKS_PROJECT_ID]
                                         [--email EMAIL | --user-id USER_ID]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--access-level <access_level>

--expires-at <expires_at>

--invite-source <invite_source>

--tasks-to-be-done <tasks_to_be_done>

--tasks-project-id <tasks_project_id>

--email <email>

--user-id <user_id>

gitlab project-invitation delete

```
usage: gitlab project-invitation delete [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --email EMAIL
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--email <email>

gitlab project-invitation get

```
usage: gitlab project-invitation get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --email EMAIL
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--email <email>

gitlab project-invitation list

```
usage: gitlab project-invitation list [-h] [--sudo SUDO] --project-id  
PROJECT_ID [--query QUERY] [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--query <query>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-invitation update

```
usage: gitlab project-invitation update [-h] [--sudo SUDO] --project-id  
PROJECT_ID --email EMAIL  
[--access-level ACCESS_LEVEL]  
[--expires-at EXPIRES_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--email <email>

--access-level <access_level>

--expires-at <expires_at>

gitlab project-issue

```
usage: gitlab project-issue [-h]
    list
    get
    create
    update
    delete
    user-agent-detail
    subscribe
    unsubscribe
    todo
    time-stats
    time-estimate
    reset-time-estimate
    add-spent-time
    reset-spent-time
    participants
    move
    reorder
    related-merge-requests
    closed-by
    ...
    ...
```

-h, --help

show this help message and exit

gitlab project-issue add-spent-time

```
usage: gitlab project-issue add-spent-time [-h] --project-id PROJECT_ID
                                            [--sudo SUDO] --iid IID --duration
                                            DURATION
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

--duration <duration>

gitlab project-issue closed-by

```
usage: gitlab project-issue closed-by [-h] --project-id PROJECT_ID  
                                     [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-issue create

```
usage: gitlab project-issue create [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                   --title TITLE [--description DESCRIPTION]  
                                   [--confidential CONFIDENTIAL]  
                                   [--assignee-ids ASSIGNEE_IDS]  
                                   [--assignee-id ASSIGNEE_ID]  
                                   [--milestone-id MILESTONE_ID]  
                                   [--labels LABELS] [--created-at CREATED_AT]  
                                   [--due-date DUE_DATE]  
                                   [--merge-request-to-resolve-discussions-of MERGE_  
→REQUEST_TO_RESOLVE_DISCUSSIONS_OF]  
                                   [--discussion-to-resolve DISCUSSION_TO_RESOLVE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--title <title>

--description <description>

--confidential <confidential>

--assignee-ids <assignee_ids>

--assignee-id <assignee_id>

--milestone-id <milestone_id>

--labels <labels>

--created-at <created_at>

--due-date <due_date>

--merge-request-to-resolve-discussions-of <merge_request_to_resolve_discussions_of>

--discussion-to-resolve <discussion_to_resolve>

gitlab project-issue delete

```
usage: gitlab project-issue delete [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                  --iid IID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--iid <iid>

gitlab project-issue get

```
usage: gitlab project-issue get [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                 --iid IID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--iid <iid>

gitlab project-issue list

```
usage: gitlab project-issue list [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                 [--iids IIDS] [--state STATE]  
                                 [--labels LABELS] [--milestone MILESTONE]  
                                 [--scope SCOPE] [--author-id AUTHOR_ID]  
                                 [--iteration-id ITERATION_ID]  
                                 [--assignee-id ASSIGNEE_ID]  
                                 [--my-reaction-emoji MY_REACTION_EMOJI]  
                                 [--order-by ORDER_BY] [--sort SORT]  
                                 [--search SEARCH]  
                                 [--created-after CREATED_AFTER]  
                                 [--created-before CREATED_BEFORE]  
                                 [--updated-after UPDATED_AFTER]  
                                 [--updated-before UPDATED_BEFORE]  
                                 [--page PAGE] [--per-page PER_PAGE]  
                                 [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

```
--iids <iids>
--state <state>
--labels <labels>
--milestone <milestone>
--scope <scope>
--author-id <author_id>
--iteration-id <iteration_id>
--assignee-id <assignee_id>
--my-reaction-emoji <my_reaction_emoji>
--order-by <order_by>
--sort <sort>
--search <search>
--created-after <created_after>
--created-before <created_before>
--updated-after <updated_after>
--updated-before <updated_before>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-issue move

```
usage: gitlab project-issue move [-h] --project-id PROJECT_ID [--sudo SUDO]
                                 --iid IID --to-project-id TO_PROJECT_ID
```

-h, --help
show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

--to-project-id <to_project_id>

gitlab project-issue participants

```
usage: gitlab project-issue participants [-h] --project-id PROJECT_ID  
                                         [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-issue related-merge-requests

```
usage: gitlab project-issue related-merge-requests [-h] --project-id  
                                                 PROJECT_ID [--sudo SUDO]  
                                                 --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-issue reorder

```
usage: gitlab project-issue reorder [-h] --project-id PROJECT_ID [--sudo SUDO]  
                                    --iid IID --move-after-id MOVE_AFTER_ID  
                                    --move-before-id MOVE_BEFORE_ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

--move-after-id <move_after_id>

--move-before-id <move_before_id>

gitlab project-issue reset-spent-time

```
usage: gitlab project-issue reset-spent-time [-h] --project-id PROJECT_ID  
                                              [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-issue reset-time-estimate

```
usage: gitlab project-issue reset-time-estimate [-h] --project-id PROJECT_ID  
                                                [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-issue subscribe

```
usage: gitlab project-issue subscribe [-h] --project-id PROJECT_ID  
                                         [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-issue time-estimate

```
usage: gitlab project-issue time-estimate [-h] --project-id PROJECT_ID  
                                            [--sudo SUDO] --iid IID --duration  
                                            DURATION
```

-h, --help

show this help message and exit

--project-id <project_id>

```
--sudo <sudo>
```

```
--iid <iid>
```

```
--duration <duration>
```

gitlab project-issue time-stats

```
usage: gitlab project-issue time-stats [-h] --project-id PROJECT_ID  
                                      [--sudo SUDO] --iid IID
```

```
-h, --help
```

show this help message and exit

```
--project-id <project_id>
```

```
--sudo <sudo>
```

```
--iid <iid>
```

gitlab project-issue todo

```
usage: gitlab project-issue todo [-h] --project-id PROJECT_ID [--sudo SUDO]  
                                 --iid IID
```

```
-h, --help
```

show this help message and exit

```
--project-id <project_id>
```

```
--sudo <sudo>
```

```
--iid <iid>
```

gitlab project-issue unsubscribe

```
usage: gitlab project-issue unsubscribe [-h] --project-id PROJECT_ID  
                                         [--sudo SUDO] --iid IID
```

```
-h, --help
```

show this help message and exit

```
--project-id <project_id>
```

```
--sudo <sudo>
```

```
--iid <iid>
```

gitlab project-issue update

```
usage: gitlab project-issue update [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  --iid IID [--title TITLE]
                                  [--description DESCRIPTION]
                                  [--confidential CONFIDENTIAL]
                                  [--assignee-ids ASSIGNEE_IDS]
                                  [--assignee-id ASSIGNEE_ID]
                                  [--milestone-id MILESTONE_ID]
                                  [--labels LABELS]
                                  [--state-event STATE_EVENT]
                                  [--updated-at UPDATED_AT]
                                  [--due-date DUE_DATE]
                                  [--discussion-locked DISCUSSION_LOCKED]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--iid <iid>

--title <title>

--description <description>

--confidential <confidential>

--assignee-ids <assignee_ids>

--assignee-id <assignee_id>

--milestone-id <milestone_id>

--labels <labels>

--state-event <state_event>

--updated-at <updated_at>

--due-date <due_date>

--discussion-locked <discussion_locked>

gitlab project-issue user-agent-detail

```
usage: gitlab project-issue user-agent-detail [-h] --project-id PROJECT_ID
                                              [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

```
--sudo <sudo>
--iid <iid>
```

gitlab project-issue-award-emoji

```
usage: gitlab project-issue-award-emoji [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab project-issue-award-emoji create

```
usage: gitlab project-issue-award-emoji create [-h] [--sudo SUDO] --project-id
                                               PROJECT_ID --issue-iid
                                               ISSUE_IID --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--name <name>

gitlab project-issue-award-emoji delete

```
usage: gitlab project-issue-award-emoji delete [-h] [--sudo SUDO] --project-id
                                               PROJECT_ID --issue-iid
                                               ISSUE_IID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--id <id>

gitlab project-issue-award-emoji get

```
usage: gitlab project-issue-award-emoji get [-h] [--sudo SUDO] --project-id  
                                PROJECT_ID --issue-iid ISSUE_IID  
                                --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--id <id>

gitlab project-issue-award-emoji list

```
usage: gitlab project-issue-award-emoji list [-h] [--sudo SUDO] --project-id  
                                PROJECT_ID --issue-iid ISSUE_IID  
                                [--page PAGE]  
                                [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-issue-discussion

```
usage: gitlab project-issue-discussion [-h] {list,get,create} ...
```

-h, --help

show this help message and exit

gitlab project-issue-discussion create

```
usage: gitlab project-issue-discussion create [-h] [--sudo SUDO] --project-id  
PROJECT_ID --issue-iid ISSUE_IID  
--body BODY  
[--created-at CREATED_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--body <body>

--created-at <created_at>

gitlab project-issue-discussion get

```
usage: gitlab project-issue-discussion get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --issue-iid ISSUE_IID  
--id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--id <id>

gitlab project-issue-discussion list

```
usage: gitlab project-issue-discussion list [-h] [--sudo SUDO] --project-id  
PROJECT_ID --issue-iid ISSUE_IID  
[--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--page <page>

```
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab project-issue-discussion-note

```
usage: gitlab project-issue-discussion-note [-h]
  get
  create
  update
  delete
  ...
```

-h, --help

show this help message and exit

gitlab project-issue-discussion-note create

```
usage: gitlab project-issue-discussion-note create [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --issue-iid ISSUE_IID
                                                 --discussion-id
                                                 DISCUSSION_ID --body BODY
                                                 [--created-at CREATED_AT]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--issue-iid <issue_iid>
```

```
--discussion-id <discussion_id>
```

```
--body <body>
```

```
--created-at <created_at>
```

gitlab project-issue-discussion-note delete

```
usage: gitlab project-issue-discussion-note delete [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --issue-iid ISSUE_IID
                                                 --discussion-id
                                                 DISCUSSION_ID --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--issue-iid <issue_iid>
--discussion-id <discussion_id>
--id <id>
```

gitlab project-issue-discussion-note get

```
usage: gitlab project-issue-discussion-note get [-h] [--sudo SUDO]
                                               --project-id PROJECT_ID
                                               --issue-iid ISSUE_IID
                                               --discussion-id DISCUSSION_ID
                                               --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--issue-iid <issue_iid>
--discussion-id <discussion_id>
--id <id>
```

gitlab project-issue-discussion-note update

```
usage: gitlab project-issue-discussion-note update [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --issue-iid ISSUE_IID
                                                 --discussion-id
                                                 DISCUSSION_ID --id ID
                                                 --body BODY
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--issue-iid <issue_iid>
--discussion-id <discussion_id>
--id <id>
--body <body>
```

gitlab project-issue-link

```
usage: gitlab project-issue-link [-h] {list,create,delete} ...
```

-h, --help

show this help message and exit

gitlab project-issue-link create

```
usage: gitlab project-issue-link create [-h] [--sudo SUDO] --project-id  
PROJECT_ID --issue-iid ISSUE_IID  
--target-project-id TARGET_PROJECT_ID  
--target-issue-iid TARGET_ISSUE_IID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--target-project-id <target_project_id>

--target-issue-iid <target_issue_iid>

gitlab project-issue-link delete

```
usage: gitlab project-issue-link delete [-h] [--sudo SUDO] --project-id  
PROJECT_ID --issue-iid ISSUE_IID  
--issue-link-id ISSUE_LINK_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--issue-link-id <issue_link_id>

gitlab project-issue-link list

```
usage: gitlab project-issue-link list [-h] [--sudo SUDO] --project-id  
PROJECT_ID --issue-iid ISSUE_IID  
[--page PAGE] [--per-page PER_PAGE]  
[--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-issue-note

```
usage: gitlab project-issue-note [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-issue-note create

```
usage: gitlab project-issue-note create [-h] [--sudo SUDO] --project-id  
PROJECT_ID --issue-iid ISSUE_IID  
--body BODY [--created-at CREATED_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--body <body>

--created-at <created_at>

gitlab project-issue-note delete

```
usage: gitlab project-issue-note delete [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --issue-iid ISSUE_IID --id  
                                         ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--id <id>

gitlab project-issue-note get

```
usage: gitlab project-issue-note get [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --issue-iid ISSUE_IID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--id <id>

gitlab project-issue-note list

```
usage: gitlab project-issue-note list [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --issue-iid ISSUE_IID  
                                         [--page PAGE] [--per-page PER_PAGE]  
                                         [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-issue-note update

```
usage: gitlab project-issue-note update [-h] [--sudo SUDO] --project-id  
PROJECT_ID --issue-iid ISSUE_IID --id  
ID --body BODY
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--id <id>

--body <body>

gitlab project-issue-note-award-emoji

```
usage: gitlab project-issue-note-award-emoji [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab project-issue-note-award-emoji create

```
usage: gitlab project-issue-note-award-emoji create [-h] [--sudo SUDO]  
--project-id PROJECT_ID  
--issue-iid ISSUE_IID  
--note-id NOTE_ID --name  
NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--note-id <note_id>

--name <name>

gitlab project-issue-note-award-emoji delete

```
usage: gitlab project-issue-note-award-emoji delete [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --issue-iid ISSUE_IID
                                                 --note-id NOTE_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--note-id <note_id>

--id <id>

gitlab project-issue-note-award-emoji get

```
usage: gitlab project-issue-note-award-emoji get [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --issue-iid ISSUE_IID
                                                 --note-id NOTE_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--note-id <note_id>

--id <id>

gitlab project-issue-note-award-emoji list

```
usage: gitlab project-issue-note-award-emoji list [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --issue-iid ISSUE_IID
                                                 --note-id NOTE_ID
                                                 [--page PAGE]
                                                 [--per-page PER_PAGE]
                                                 [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--issue-iid <issue_iid>
--note-id <note_id>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-issue-resource-iteration-event

```
usage: gitlab project-issue-resource-iteration-event [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab project-issue-resource-iteration-event get

```
usage: gitlab project-issue-resource-iteration-event get [-h] [--sudo SUDO]
                                                       --project-id
                                                       PROJECT_ID
                                                       --issue-iid ISSUE_IID
                                                       --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--issue-iid <issue_iid>
--id <id>
```

gitlab project-issue-resource-iteration-event list

```
usage: gitlab project-issue-resource-iteration-event list [-h] [--sudo SUDO]
                                                       --project-id
                                                       PROJECT_ID
                                                       --issue-iid
                                                       ISSUE_IID
                                                       [--page PAGE]
                                                       [--per-page PER_PAGE]
                                                       [--get-all]
```

-h, --help
show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-issue-resource-label-event

```
usage: gitlab project-issue-resource-label-event [-h] {list,get} ...
```

-h, --help
show this help message and exit

gitlab project-issue-resource-label-event get

```
usage: gitlab project-issue-resource-label-event get [-h] [--sudo SUDO]
--project-id PROJECT_ID
--issue-iid ISSUE_IID
--id ID
```

-h, --help
show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--id <id>

gitlab project-issue-resource-label-event list

```
usage: gitlab project-issue-resource-label-event list [-h] [--sudo SUDO]
--project-id PROJECT_ID
--issue-iid ISSUE_IID
[--page PAGE]
[--per-page PER_PAGE]
[--get-all]
```

-h, --help
show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--issue-iid <issue_iid>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-issue-resource-milestone-event

```
usage: gitlab project-issue-resource-milestone-event [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab project-issue-resource-milestone-event get

```
usage: gitlab project-issue-resource-milestone-event get [-h] [--sudo SUDO]
--project-id
PROJECT_ID
--issue-iid ISSUE_IID
--id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--issue-iid <issue_iid>

--id <id>

gitlab project-issue-resource-milestone-event list

```
usage: gitlab project-issue-resource-milestone-event list [-h] [--sudo SUDO]
--project-id
PROJECT_ID
--issue-iid
ISSUE_IID
[--page PAGE]
[--per-page PER_PAGE]
[--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--issue-iid <issue_iid>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-issue-resource-state-event

```
usage: gitlab project-issue-resource-state-event [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab project-issue-resource-state-event get

```
usage: gitlab project-issue-resource-state-event get [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --issue-iid ISSUE_IID
                                                    --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--issue-iid <issue_iid>
--id <id>
```

gitlab project-issue-resource-state-event list

```
usage: gitlab project-issue-resource-state-event list [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --issue-iid ISSUE_IID
                                                       [--page PAGE]
                                                       [--per-page PER_PAGE]
                                                       [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
--issue-iid <issue_iid>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-issue-resource-weight-event

```
usage: gitlab project-issue-resource-weight-event [-h] {list,get} ...
```

-h, --help
show this help message and exit

gitlab project-issue-resource-weight-event get

```
usage: gitlab project-issue-resource-weight-event get [-h] [--sudo SUDO]
--project-id PROJECT_ID
--issue-iid ISSUE_IID
--id ID
```

-h, --help
show this help message and exit
--sudo <sudo>
--project-id <project_id>
--issue-iid <issue_iid>
--id <id>

gitlab project-issue-resource-weight-event list

```
usage: gitlab project-issue-resource-weight-event list [-h] [--sudo SUDO]
--project-id PROJECT_ID
--issue-iid ISSUE_IID
[--page PAGE]
[--per-page PER_PAGE]
[--get-all]
```

-h, --help
show this help message and exit
--sudo <sudo>
--project-id <project_id>

```
--issue-iid <issue_iid>
--page <page>
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab project-issues-statistics

```
usage: gitlab project-issues-statistics [-h] {get} ...
```

```
-h, --help
    show this help message and exit
```

gitlab project-issues-statistics get

```
usage: gitlab project-issues-statistics get [-h] [--sudo SUDO] --project-id
                                             PROJECT_ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
```

gitlab project-job

```
usage: gitlab project-job [-h]
  list
  get
  cancel
  retry
  play
  erase
  keep-artifacts
  delete-artifacts
  artifacts
  artifact
  trace
  ...
  ...
```

```
-h, --help
    show this help message and exit
```

gitlab project-job artifact

```
usage: gitlab project-job artifact [-h] --project-id PROJECT_ID [--sudo SUDO]
                                   --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-job artifacts

```
usage: gitlab project-job artifacts [-h] --project-id PROJECT_ID [--sudo SUDO]
                                    --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-job cancel

```
usage: gitlab project-job cancel [-h] --project-id PROJECT_ID [--sudo SUDO]
                                 --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-job delete-artifacts

```
usage: gitlab project-job delete-artifacts [-h] --project-id PROJECT_ID
                                            [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

```
--sudo <sudo>  
--id <id>
```

gitlab project-job erase

```
usage: gitlab project-job erase [-h] --project-id PROJECT_ID [--sudo SUDO]  
                                --id ID
```

```
-h, --help  
    show this help message and exit  
--project-id <project_id>  
--sudo <sudo>  
--id <id>
```

gitlab project-job get

```
usage: gitlab project-job get [-h] [--sudo SUDO] --project-id PROJECT_ID --id  
                               ID
```

```
-h, --help  
    show this help message and exit  
--sudo <sudo>  
--project-id <project_id>  
--id <id>
```

gitlab project-job keep-artifacts

```
usage: gitlab project-job keep-artifacts [-h] --project-id PROJECT_ID  
                                         [--sudo SUDO] --id ID
```

```
-h, --help  
    show this help message and exit  
--project-id <project_id>  
--sudo <sudo>  
--id <id>
```

gitlab project-job list

```
usage: gitlab project-job list [-h] [--sudo SUDO] --project-id PROJECT_ID
                               [--scope SCOPE] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--scope <scope>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-job play

```
usage: gitlab project-job play [-h] --project-id PROJECT_ID [--sudo SUDO] --id
                               ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-job retry

```
usage: gitlab project-job retry [-h] --project-id PROJECT_ID [--sudo SUDO]
                                 --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-job trace

```
usage: gitlab project-job trace [-h] --project-id PROJECT_ID [--sudo SUDO]
                                 --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-job-token-scope

```
usage: gitlab project-job-token-scope [-h] {get,update} ...
```

-h, --help

show this help message and exit

gitlab project-job-token-scope get

```
usage: gitlab project-job-token-scope get [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

gitlab project-job-token-scope update

```
usage: gitlab project-job-token-scope update [-h] [--sudo SUDO] --project-id
                                              PROJECT_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

gitlab project-key

```
usage: gitlab project-key [-h] {list,get,create,update,delete,enable} ...
```

-h, --help

show this help message and exit

gitlab project-key create

```
usage: gitlab project-key create [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                --title TITLE --key KEY [--can-push CAN_PUSH]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--title <title>

--key <key>

--can-push <can_push>

gitlab project-key delete

```
usage: gitlab project-key delete [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                 --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-key enable

```
usage: gitlab project-key enable [-h] --project-id PROJECT_ID [--sudo SUDO]  
                                 --id ID --key-id KEY_ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

--key-id <key_id>

gitlab project-key get

```
usage: gitlab project-key get [-h] [--sudo SUDO] --project-id PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-key list

```
usage: gitlab project-key list [-h] [--sudo SUDO] --project-id PROJECT_ID  
                               [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-key update

```
usage: gitlab project-key update [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                 --id ID [--title TITLE] [--can-push CAN_PUSH]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

--title <title>

--can-push <can_push>

gitlab project-label

```
usage: gitlab project-label [-h]
    list
    get
    create
    update
    delete
    subscribe
    unsubscribe
    ...
```

-h, --help

show this help message and exit

gitlab project-label create

```
usage: gitlab project-label create [-h] [--sudo SUDO] --project-id PROJECT_ID
                                   --name NAME --color COLOR
                                   [--description DESCRIPTION]
                                   [--priority PRIORITY]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

--color <color>

--description <description>

--priority <priority>

gitlab project-label delete

```
usage: gitlab project-label delete [-h] [--sudo SUDO] --project-id PROJECT_ID
                                   --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-label get

```
usage: gitlab project-label get [-h] [--sudo SUDO] --project-id PROJECT_ID  
                               --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-label list

```
usage: gitlab project-label list [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                 [--page PAGE] [--per-page PER_PAGE]  
                                 [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-label subscribe

```
usage: gitlab project-label subscribe [-h] --project-id PROJECT_ID  
                                      [--sudo SUDO] --name NAME
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--name <name>

gitlab project-label unsubscribe

```
usage: gitlab project-label unsubscribe [-h] --project-id PROJECT_ID  
                                      [--sudo SUDO] --name NAME
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--name <name>

gitlab project-label update

```
usage: gitlab project-label update [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                      --name NAME [--new-name NEW_NAME]  
                                      [--color COLOR] [--description DESCRIPTION]  
                                      [--priority PRIORITY]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

--new-name <new_name>

--color <color>

--description <description>

--priority <priority>

gitlab project-member

```
usage: gitlab project-member [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-member create

```
usage: gitlab project-member create [-h] [--sudo SUDO] --project-id PROJECT_ID
                                   --access-level ACCESS_LEVEL --user-id
                                   USER_ID [--expires-at EXPIRES_AT]
                                   [--tasks-to-be-done TASKS_TO_BE_DONE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--access-level <access_level>

--user-id <user_id>

--expires-at <expires_at>

--tasks-to-be-done <tasks_to_be_done>

gitlab project-member delete

```
usage: gitlab project-member delete [-h] [--sudo SUDO] --project-id PROJECT_ID
                                   --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-member get

```
usage: gitlab project-member get [-h] [--sudo SUDO] --project-id PROJECT_ID
                                   --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-member list

```
usage: gitlab project-member list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  [--page PAGE] [--per-page PER_PAGE]
                                  [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-member update

```
usage: gitlab project-member update [-h] [--sudo SUDO] --project-id PROJECT_ID
                                    --id ID --access-level ACCESS_LEVEL
                                    [--expires-at EXPIRES_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

--access-level <access_level>

--expires-at <expires_at>

gitlab project-member-all

```
usage: gitlab project-member-all [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab project-member-all get

```
usage: gitlab project-member-all get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-member-all list

```
usage: gitlab project-member-all list [-h] [--sudo SUDO] --project-id  
PROJECT_ID [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request

```
usage: gitlab project-merge-request [-h]  
list  
get  
create  
update  
delete  
subscribe  
unsubscribe  
todo  
time-stats  
time-estimate  
reset-time-estimate  
add-spent-time  
reset-spent-time  
participants  
cancel-merge-when-pipeline-succeeds
```

(continues on next page)

(continued from previous page)

```
closes-issues  
commits  
changes  
approve  
unapprove  
rebase  
reset-approvals  
merge-ref  
merge
```

```
...
```

-h, --help

show this help message and exit

gitlab project-merge-request add-spent-time

```
usage: gitlab project-merge-request add-spent-time [-h] --project-id  
PROJECT_ID [--sudo SUDO]  
--iid IID --duration  
DURATION
```

-h, --help

show this help message and exit

```
--project-id <project_id>  
--sudo <sudo>  
--iid <iid>  
--duration <duration>
```

gitlab project-merge-request approve

```
usage: gitlab project-merge-request approve [-h] --project-id PROJECT_ID  
[--sudo SUDO] --iid IID  
[--sha SHA]
```

-h, --help

show this help message and exit

```
--project-id <project_id>  
--sudo <sudo>  
--iid <iid>  
--sha <sha>
```

gitlab project-merge-request cancel-merge-when-pipeline-succeeds

```
usage: gitlab project-merge-request cancel-merge-when-pipeline-succeeds  
      [-h] --project-id PROJECT_ID [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-merge-request changes

```
usage: gitlab project-merge-request changes [-h] --project-id PROJECT_ID  
                                         [--sudo SUDO] --iid IID  
                                         [--access-raw-diffs ACCESS_RAW_DIFFS]
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

--access-raw-diffs <access_raw_diffs>

gitlab project-merge-request closes-issues

```
usage: gitlab project-merge-request closes-issues [-h] --project-id PROJECT_ID  
                                                 [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-merge-request commits

```
usage: gitlab project-merge-request commits [-h] --project-id PROJECT_ID
                                            [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>**--sudo <sudo>****--iid <iid>****gitlab project-merge-request create**

```
usage: gitlab project-merge-request create [-h] [--sudo SUDO] --project-id
                                             PROJECT_ID --source-branch
                                             SOURCE_BRANCH --target-branch
                                             TARGET_BRANCH --title TITLE
                                             [--allow-collaboration ALLOW_COLLABORATION]
                                             [--allow-maintainer-to-push ALLOW_MAINTAINER_
                                             ↵TO_PUSH]
                                             [--approvals-before-merge APPROVALS_BEFORE_
                                             ↵MERGE]
                                             [--assignee-id ASSIGNEE_ID]
                                             [--assignee-ids ASSIGNEE_IDS]
                                             [--description DESCRIPTION]
                                             [--labels LABELS]
                                             [--milestone-id MILESTONE_ID]
                                             [--remove-source-branch REMOVE_SOURCE_BRANCH]
                                             [--reviewer-ids REVIEWER_IDS]
                                             [--squash SQUASH]
                                             [--target-project-id TARGET_PROJECT_ID]
```

-h, --help

show this help message and exit

--sudo <sudo>**--project-id <project_id>****--source-branch <source_branch>****--target-branch <target_branch>****--title <title>****--allow-collaboration <allow_collaboration>****--allow-maintainer-to-push <allow_maintainer_to_push>****--approvals-before-merge <approvals_before_merge>****--assignee-id <assignee_id>**

```
--assignee-ids <assignee_ids>
--description <description>
--labels <labels>
--milestone-id <milestone_id>
--remove-source-branch <remove_source_branch>
--reviewer-ids <reviewer_ids>
--squash <squash>
--target-project-id <target_project_id>
```

gitlab project-merge-request delete

```
usage: gitlab project-merge-request delete [-h] [--sudo SUDO] --project-id
                                             PROJECT_ID --iid IID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--iid <iid>

gitlab project-merge-request get

```
usage: gitlab project-merge-request get [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --iid IID
                                         [--render-html RENDER_HTML]
                                         [--include-diverged-commits-count INCLUDE_
                                         ↪DIVERGED_COMMITS_COUNT]
                                         [--include-rebase-in-progress INCLUDE_REBASE_IN_
                                         ↪PROGRESS]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--iid <iid>

--render-html <render_html>

--include-diverged-commits-count <include_diverged_commits_count>

--include-rebase-in-progress <include_rebase_in_progress>

gitlab project-merge-request list

```
usage: gitlab project-merge-request list [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID [--state STATE]
                                         [--order-by ORDER_BY] [--sort SORT]
                                         [--milestone MILESTONE] [--view VIEW]
                                         [--labels LABELS]
                                         [--created-after CREATED_AFTER]
                                         [--created-before CREATED_BEFORE]
                                         [--updated-after UPDATED_AFTER]
                                         [--updated-before UPDATED_BEFORE]
                                         [--scope SCOPE] [--iids IIDS]
                                         [--author-id AUTHOR_ID]
                                         [--assignee-id ASSIGNEE_ID]
                                         [--approver-ids APPROVER_IDS]
                                         [--approved-by-ids APPROVED_BY_IDS]
                                         [--my-reaction-emoji MY_REACTION_EMOJI]
                                         [--source-branch SOURCE_BRANCH]
                                         [--target-branch TARGET_BRANCH]
                                         [--search SEARCH] [--wip WIP]
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--state <state>

--order-by <order_by>

--sort <sort>

--milestone <milestone>

--view <view>

--labels <labels>

--created-after <created_after>

--created-before <created_before>

--updated-after <updated_after>

--updated-before <updated_before>

--scope <scope>

--iids <iids>

--author-id <author_id>

--assignee-id <assignee_id>

```
--approver-ids <approver_ids>
--approved-by-ids <approved_by_ids>
--my-reaction-emoji <my_reaction_emoji>
--source-branch <source_branch>
--target-branch <target_branch>
--search <search>
--wip <wip>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-merge-request merge

```
usage: gitlab project-merge-request merge [-h] --project-id PROJECT_ID
                                         [--sudo SUDO] --iid IID
                                         [--merge-commit-message MERGE_COMMIT_MESSAGE]
                                         [--should-remove-source-branch SHOULD_REMOVE_
                                         ↪SOURCE_BRANCH]
                                         [--merge-when-pipeline-succeeds MERGE_WHEN_
                                         ↪PIPELINE_SUCCEEDS]
```

-h, --help

show this help message and exit

```
--project-id <project_id>
--sudo <sudo>
--iid <iid>
--merge-commit-message <merge_commit_message>
--should-remove-source-branch <should_remove_source_branch>
--merge-when-pipeline-succeeds <merge_when_pipeline_succeeds>
```

gitlab project-merge-request merge-ref

```
usage: gitlab project-merge-request merge-ref [-h] --project-id PROJECT_ID
                                               [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

```
--project-id <project_id>
```

```
--sudo <sudo>
--iid <iid>
```

gitlab project-merge-request participants

```
usage: gitlab project-merge-request participants [-h] --project-id PROJECT_ID
                                                [--sudo SUDO] --iid IID
```

```
-h, --help
    show this help message and exit
--project-id <project_id>
--sudo <sudo>
--iid <iid>
```

gitlab project-merge-request rebase

```
usage: gitlab project-merge-request rebase [-h] --project-id PROJECT_ID
                                            [--sudo SUDO] --iid IID
```

```
-h, --help
    show this help message and exit
--project-id <project_id>
--sudo <sudo>
--iid <iid>
```

gitlab project-merge-request reset-approvals

```
usage: gitlab project-merge-request reset-approvals [-h] --project-id
                                                   PROJECT_ID [--sudo SUDO]
                                                   --iid IID
```

```
-h, --help
    show this help message and exit
--project-id <project_id>
--sudo <sudo>
--iid <iid>
```

gitlab project-merge-request reset-spent-time

```
usage: gitlab project-merge-request reset-spent-time [-h] --project-id  
                                                 PROJECT_ID [--sudo SUDO]  
                                                 --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-merge-request reset-time-estimate

```
usage: gitlab project-merge-request reset-time-estimate [-h] --project-id  
                                                 PROJECT_ID  
                                                 [--sudo SUDO] --iid  
                                                 IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-merge-request subscribe

```
usage: gitlab project-merge-request subscribe [-h] --project-id PROJECT_ID  
                                                 [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-merge-request time-estimate

```
usage: gitlab project-merge-request time-estimate [-h] --project-id PROJECT_ID  
                                                [--sudo SUDO] --iid IID  
                                                --duration DURATION
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

--duration <duration>

gitlab project-merge-request time-stats

```
usage: gitlab project-merge-request time-stats [-h] --project-id PROJECT_ID  
                                                [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-merge-request todo

```
usage: gitlab project-merge-request todo [-h] --project-id PROJECT_ID  
                                         [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-merge-request unapprove

```
usage: gitlab project-merge-request unapprove [-h] --project-id PROJECT_ID  
                                              [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-merge-request unsubscribe

```
usage: gitlab project-merge-request unsubscribe [-h] --project-id PROJECT_ID  
                                                [--sudo SUDO] --iid IID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--iid <iid>

gitlab project-merge-request update

```
usage: gitlab project-merge-request update [-h] [--sudo SUDO] --project-id  
                                             PROJECT_ID --iid IID  
                                             [--target-branch TARGET_BRANCH]  
                                             [--assignee-id ASSIGNEE_ID]  
                                             [--title TITLE]  
                                             [--description DESCRIPTION]  
                                             [--state-event STATE_EVENT]  
                                             [--labels LABELS]  
                                             [--milestone-id MILESTONE_ID]  
                                             [--remove-source-branch REMOVE_SOURCE_BRANCH]  
                                             [--discussion-locked DISCUSSION_LOCKED]  
                                             [--allow-maintainer-to-push ALLOW_MAINTAINER_  
→ TO_PUSH]  
                                             [--squash SQUASH]  
                                             [--reviewer-ids REVIEWER_IDS]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

```
--iid <iid>
--target-branch <target_branch>
--assignee-id <assignee_id>
--title <title>
--description <description>
--state-event <state_event>
--labels <labels>
--milestone-id <milestone_id>
--remove-source-branch <remove_source_branch>
--discussion-locked <discussion_locked>
--allow-maintainer-to-push <allow_maintainer_to_push>
--squash <squash>
--reviewer-ids <reviewer_ids>
```

gitlab project-merge-request-approval

```
usage: gitlab project-merge-request-approval [-h] {get,update} ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-approval get

```
usage: gitlab project-merge-request-approval get [-h] [--sudo SUDO]
                                                --project-id PROJECT_ID
                                                --mr-iid MR_IID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

gitlab project-merge-request-approval update

```
usage: gitlab project-merge-request-approval update [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --mr-iid MR_IID
                                                    --approvals-required
                                                    APPROVALS_REQUIRED
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--approvals-required <approvals_required>

gitlab project-merge-request-approval-rule

```
usage: gitlab project-merge-request-approval-rule [-h]
    list
    get
    create
    update
    delete
    ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-approval-rule create

```
usage: gitlab project-merge-request-approval-rule create [-h] [--sudo SUDO]
                                                       --project-id
                                                       PROJECT_ID --mr-iid
                                                       MR_IID --id ID
                                                       --merge-request-iid
                                                       MERGE_REQUEST_IID
                                                       --name NAME
                                                       --approvals-required
                                                       APPROVALS_REQUIRED
                                                       [--approval-project-rule-id,
                                                       APPROVAL_PROJECT_RULE_ID]
                                                       [--user-ids USER_IDS]
                                                       [--group-ids GROUP_IDS]
```

-h, --help

show this help message and exit

--sudo <sudo>

```
--project-id <project_id>
--mr-iid <mr_iid>
--id <id>
--merge-request-iid <merge_request_iid>
--name <name>
--approvals-required <approvals_required>
--approval-project-rule-id <approval_project_rule_id>
--user-ids <user_ids>
--group-ids <group_ids>
```

gitlab project-merge-request-approval-rule delete

```
usage: gitlab project-merge-request-approval-rule delete [-h] [--sudo SUDO]
                                                       --project-id
                                                       PROJECT_ID --mr-iid
                                                       MR_IID --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--mr-iid <mr_iid>
```

```
--id <id>
```

gitlab project-merge-request-approval-rule get

```
usage: gitlab project-merge-request-approval-rule get [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--mr-iid <mr_iid>
```

```
--id <id>
```

gitlab project-merge-request-approval-rule list

```
usage: gitlab project-merge-request-approval-rule list [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID
                                                       [--page PAGE]
                                                       [--per-page PER_PAGE]
                                                       [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request-approval-rule update

```
usage: gitlab project-merge-request-approval-rule update [-h] [--sudo SUDO]
                                                       --project-id
                                                       PROJECT_ID --mr-iid
                                                       MR_IID --id ID
                                                       --merge-request-iid
                                                       MERGE_REQUEST_IID
                                                       --approval-rule-id
                                                       APPROVAL_RULE_ID
                                                       --name NAME
                                                       --approvals-required
                                                       APPROVALS_REQUIRED
                                                       [--user-ids USER_IDS]
                                                       [--group-ids GROUP_IDS]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--id <id>

--merge-request-iid <merge_request_iid>

--approval-rule-id <approval_rule_id>

```
--name <name>
--approvals-required <approvals_required>
--user-ids <user_ids>
--group-ids <group_ids>
```

gitlab project-merge-request-approval-state

```
usage: gitlab project-merge-request-approval-state [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-approval-state get

```
usage: gitlab project-merge-request-approval-state get [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--id <id>

gitlab project-merge-request-award-emoji

```
usage: gitlab project-merge-request-award-emoji [-h]
    list
    get
    create
    delete
    ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-award-emoji create

```
usage: gitlab project-merge-request-award-emoji create [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID --name
                                                       NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--name <name>

gitlab project-merge-request-award-emoji delete

```
usage: gitlab project-merge-request-award-emoji delete [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--id <id>

gitlab project-merge-request-award-emoji get

```
usage: gitlab project-merge-request-award-emoji get [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--id <id>

gitlab project-merge-request-award-emoji list

```
usage: gitlab project-merge-request-award-emoji list [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --mr-iid MR_IID
                                                    [--page PAGE]
                                                    [--per-page PER_PAGE]
                                                    [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request-diff

```
usage: gitlab project-merge-request-diff [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-diff get

```
usage: gitlab project-merge-request-diff get [-h] [--sudo SUDO] --project-id
                                              PROJECT_ID --mr-iid MR_IID --id
                                              ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--id <id>

gitlab project-merge-request-diff list

```
usage: gitlab project-merge-request-diff list [-h] [--sudo SUDO] --project-id
                                               PROJECT_ID --mr-iid MR_IID
                                               [--page PAGE]
                                               [--per-page PER_PAGE]
                                               [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request-discussion

```
usage: gitlab project-merge-request-discussion [-h]
                                              list
                                              get
                                              create
                                              update
                                              ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-discussion create

```
usage: gitlab project-merge-request-discussion create [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID --body
                                                       BODY
                                                       [--created-at CREATED_AT]
                                                       [--position POSITION]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

```
--body <body>
--created-at <created_at>
--position <position>
```

gitlab project-merge-request-discussion get

```
usage: gitlab project-merge-request-discussion get [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --mr-iid MR_IID --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--mr-iid <mr_iid>
```

```
--id <id>
```

gitlab project-merge-request-discussion list

```
usage: gitlab project-merge-request-discussion list [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --mr-iid MR_IID
                                                 [--page PAGE]
                                                 [--per-page PER_PAGE]
                                                 [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--mr-iid <mr_iid>
```

```
--page <page>
```

```
--per-page <per_page>
```

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request-discussion update

```
usage: gitlab project-merge-request-discussion update [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID --id ID
                                                       --resolved RESOLVED
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--id <id>

--resolved <resolved>

gitlab project-merge-request-discussion-note

```
usage: gitlab project-merge-request-discussion-note [-h]
get
create
update
delete
...
```

-h, --help

show this help message and exit

gitlab project-merge-request-discussion-note create

```
usage: gitlab project-merge-request-discussion-note create [-h] [--sudo SUDO]
                                                       --project-id
                                                       PROJECT_ID --mr-iid
                                                       MR_IID
                                                       --discussion-id
                                                       DISCUSSION_ID
                                                       --body BODY
                                                       [--created-at CREATED_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--discussion-id <discussion_id>

```
--body <body>  
--created-at <created_at>
```

gitlab project-merge-request-discussion-note delete

```
usage: gitlab project-merge-request-discussion-note delete [-h] [--sudo SUDO]  
                --project-id  
                PROJECT_ID --mr-iid  
                MR_IID  
                --discussion-id  
                DISCUSSION_ID --id  
                ID
```

```
-h, --help  
    show this help message and exit  
--sudo <sudo>  
--project-id <project_id>  
--mr-iid <mr_iid>  
--discussion-id <discussion_id>  
--id <id>
```

gitlab project-merge-request-discussion-note get

```
usage: gitlab project-merge-request-discussion-note get [-h] [--sudo SUDO]  
                --project-id  
                PROJECT_ID --mr-iid  
                MR_IID --discussion-id  
                DISCUSSION_ID --id ID
```

```
-h, --help  
    show this help message and exit  
--sudo <sudo>  
--project-id <project_id>  
--mr-iid <mr_iid>  
--discussion-id <discussion_id>  
--id <id>
```

gitlab project-merge-request-discussion-note update

```
usage: gitlab project-merge-request-discussion-note update [-h] [--sudo SUDO]
--project-id
PROJECT_ID --mr-iid
MR_IID
--discussion-id
DISCUSSION_ID --id
ID --body BODY
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--discussion-id <discussion_id>

--id <id>

--body <body>

gitlab project-merge-request-draft-note

```
usage: gitlab project-merge-request-draft-note [-h]
list
get
create
update
delete
...
```

-h, --help

show this help message and exit

gitlab project-merge-request-draft-note create

```
usage: gitlab project-merge-request-draft-note create [-h] [--sudo SUDO]
--project-id PROJECT_ID
--mr-iid MR_IID --note
NOTE
[--commit-id COMMIT_ID]
[--in-reply-to-discussion-id IN_
REPLY_TO_DISCUSSION_ID]
[--position POSITION]
[--resolve-discussion RESOLVE_
DISCUSSION]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--mr-iid <mr_iid>
--note <note>
--commit-id <commit_id>
--in-reply-to-discussion-id <in_reply_to_discussion_id>
--position <position>
--resolve-discussion <resolve_discussion>
```

gitlab project-merge-request-draft-note delete

```
usage: gitlab project-merge-request-draft-note delete [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--mr-iid <mr_iid>
--id <id>
```

gitlab project-merge-request-draft-note get

```
usage: gitlab project-merge-request-draft-note get [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--mr-iid <mr_iid>
--id <id>
```

gitlab project-merge-request-draft-note list

```
usage: gitlab project-merge-request-draft-note list [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --mr-iid MR_IID
                                                    [--page PAGE]
                                                    [--per-page PER_PAGE]
                                                    [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request-draft-note update

```
usage: gitlab project-merge-request-draft-note update [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID --id ID
                                                       [--position POSITION]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--id <id>

--position <position>

gitlab project-merge-request-note

```
usage: gitlab project-merge-request-note [-h]
  list
  get
  create
  update
  delete
  ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-note create

```
usage: gitlab project-merge-request-note create [-h] [--sudo SUDO]
                                                --project-id PROJECT_ID
                                                --mr-iid MR_IID --body BODY
```

-h, --help

show this help message and exit

--sudo <sudo>**--project-id <project_id>****--mr-iid <mr_iid>****--body <body>****gitlab project-merge-request-note delete**

```
usage: gitlab project-merge-request-note delete [-h] [--sudo SUDO]
                                                --project-id PROJECT_ID
                                                --mr-iid MR_IID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>**--project-id <project_id>****--mr-iid <mr_iid>****--id <id>****gitlab project-merge-request-note get**

```
usage: gitlab project-merge-request-note get [-h] [--sudo SUDO] --project-id
                                              PROJECT_ID --mr-iid MR_IID --id
                                              ID
```

-h, --help

show this help message and exit

--sudo <sudo>**--project-id <project_id>****--mr-iid <mr_iid>****--id <id>**

gitlab project-merge-request-note list

```
usage: gitlab project-merge-request-note list [-h] [--sudo SUDO] --project-id  
PROJECT_ID --mr-iid MR_IID  
[--page PAGE]  
[--per-page PER_PAGE]  
[--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request-note update

```
usage: gitlab project-merge-request-note update [-h] [--sudo SUDO]  
--project-id PROJECT_ID  
--mr-iid MR_IID --id ID --body  
BODY
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--id <id>

--body <body>

gitlab project-merge-request-note-award-emoji

```
usage: gitlab project-merge-request-note-award-emoji [-h]  
list  
get  
create  
delete  
...
```

-h, --help

show this help message and exit

gitlab project-merge-request-note-award-emoji create

```
usage: gitlab project-merge-request-note-award-emoji create
      [-h] [--sudo SUDO] --project-id PROJECT_ID --mr-iid MR_IID --note-id
      NOTE_ID --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--note-id <note_id>

--name <name>

gitlab project-merge-request-note-award-emoji delete

```
usage: gitlab project-merge-request-note-award-emoji delete
      [-h] [--sudo SUDO] --project-id PROJECT_ID --mr-iid MR_IID --note-id
      NOTE_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--note-id <note_id>

--id <id>

gitlab project-merge-request-note-award-emoji get

```
usage: gitlab project-merge-request-note-award-emoji get [-h] [--sudo SUDO]
      --project-id
      PROJECT_ID --mr-iid
      MR_IID --note-id
      NOTE_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

```
--note-id <note_id>
--id <id>
```

gitlab project-merge-request-note-award-emoji list

```
usage: gitlab project-merge-request-note-award-emoji list [-h] [--sudo SUDO]
                                                               --project-id
                                                               PROJECT_ID --mr-iid
                                                               MR_IID --note-id
                                                               NOTE_ID
                                                               [--page PAGE]
                                                               [--per-page PER_PAGE]
                                                               [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--mr-iid <mr_iid>
```

```
--note-id <note_id>
```

```
--page <page>
```

```
--per-page <per_page>
```

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request-pipeline

```
usage: gitlab project-merge-request-pipeline [-h] {list,create} ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-pipeline create

```
usage: gitlab project-merge-request-pipeline create [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --mr-iid MR_IID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--mr-iid <mr_iid>
```

gitlab project-merge-request-pipeline list

```
usage: gitlab project-merge-request-pipeline list [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --mr-iid MR_IID
                                                 [--page PAGE]
                                                 [--per-page PER_PAGE]
                                                 [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request-resource-label-event

```
usage: gitlab project-merge-request-resource-label-event [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-resource-label-event get

```
usage: gitlab project-merge-request-resource-label-event get
        [-h] [--sudo SUDO] --project-id PROJECT_ID --mr-iid MR_IID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--id <id>

gitlab project-merge-request-resource-label-event list

```
usage: gitlab project-merge-request-resource-label-event list
      [-h] [--sudo SUDO] --project-id PROJECT_ID --mr-iid MR_IID
      [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request-resource-milestone-event

```
usage: gitlab project-merge-request-resource-milestone-event
      [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-resource-milestone-event get

```
usage: gitlab project-merge-request-resource-milestone-event get
      [-h] [--sudo SUDO] --project-id PROJECT_ID --mr-iid MR_IID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--id <id>

gitlab project-merge-request-resource-milestone-event list

```
usage: gitlab project-merge-request-resource-milestone-event list
      [-h] [--sudo SUDO] --project-id PROJECT_ID --mr-iid MR_IID
      [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request-resource-state-event

```
usage: gitlab project-merge-request-resource-state-event [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-resource-state-event get

```
usage: gitlab project-merge-request-resource-state-event get
      [-h] [--sudo SUDO] --project-id PROJECT_ID --mr-iid MR_IID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--id <id>

gitlab project-merge-request-resource-state-event list

```
usage: gitlab project-merge-request-resource-state-event list
      [-h] [--sudo SUDO] --project-id PROJECT_ID --mr-iid MR_IID
      [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-merge-request-reviewer-detail

```
usage: gitlab project-merge-request-reviewer-detail [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab project-merge-request-reviewer-detail list

```
usage: gitlab project-merge-request-reviewer-detail list [-h] [--sudo SUDO]
      --project-id
      PROJECT_ID --mr-iid
      MR_IID [--page PAGE]
      [--per-page PER_PAGE]
      [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--mr-iid <mr_iid>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-merge-train

```
usage: gitlab project-merge-train [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab project-merge-train list

```
usage: gitlab project-merge-train list [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID [--scope SCOPE]
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--scope <scope>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-milestone

```
usage: gitlab project-milestone [-h]
    list
    get
    create
    update
    delete
    issues
    merge-requests
    ...
```

-h, --help

show this help message and exit

gitlab project-milestone create

```
usage: gitlab project-milestone create [-h] [--sudo SUDO] --project-id
                                      PROJECT_ID --title TITLE
                                      [--description DESCRIPTION]
                                      [--due-date DUE_DATE]
                                      [--start-date START_DATE]
                                      [--state-event STATE_EVENT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--title <title>

--description <description>

--due-date <due_date>

--start-date <start_date>

--state-event <state_event>

gitlab project-milestone delete

```
usage: gitlab project-milestone delete [-h] [--sudo SUDO] --project-id
                                       PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-milestone get

```
usage: gitlab project-milestone get [-h] [--sudo SUDO] --project-id PROJECT_ID
                                    --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-milestone issues

```
usage: gitlab project-milestone issues [-h] --project-id PROJECT_ID  
                                     [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-milestone list

```
usage: gitlab project-milestone list [-h] [--sudo SUDO] --project-id  
                                     PROJECT_ID [--iids IIDS] [--state STATE]  
                                     [--search SEARCH] [--page PAGE]  
                                     [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--iids <iids>

--state <state>

--search <search>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-milestone merge-requests

```
usage: gitlab project-milestone merge-requests [-h] --project-id PROJECT_ID  
                                              [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-milestone update

```
usage: gitlab project-milestone update [-h] [--sudo SUDO] --project-id  
                                      PROJECT_ID --id ID [--title TITLE]  
                                      [--description DESCRIPTION]  
                                      [--due-date DUE_DATE]  
                                      [--start-date START_DATE]  
                                      [--state-event STATE_EVENT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

--title <title>

--description <description>

--due-date <due_date>

--start-date <start_date>

--state-event <state_event>

gitlab project-note

```
usage: gitlab project-note [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab project-note get

```
usage: gitlab project-note get [-h] [--sudo SUDO] --project-id PROJECT_ID --id  
                               ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-note list

```
usage: gitlab project-note list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                [--page PAGE] [--per-page PER_PAGE]
                                [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>**--project-id <project_id>****--page <page>****--per-page <per_page>****--get-all**

Return all items from the server, without pagination.

gitlab project-notification-settings

```
usage: gitlab project-notification-settings [-h] {get,update} ...
```

-h, --help

show this help message and exit

gitlab project-notification-settings get

```
usage: gitlab project-notification-settings get [-h] [--sudo SUDO]
                                                --project-id PROJECT_ID
```

-h, --help

show this help message and exit

--sudo <sudo>**--project-id <project_id>****gitlab project-notification-settings update**

```
usage: gitlab project-notification-settings update [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 [--level LEVEL]
                                                 [--notification-email NOTIFICATION_
                                                 ↵EMAIL]
                                                 [--new-note NEW_NOTE]
                                                 [--new-issue NEW_ISSUE]
                                                 [--reopen-issue REOPEN_ISSUE]
                                                 [--close-issue CLOSE_ISSUE]
                                                 [--reassign-issue REASSIGN_ISSUE]
```

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↳ REQUEST]	[--new-merge-request NEW_MERGE_
↳ REQUEST]	[--reopen-merge-request REOPEN_MERGE_
↳ REQUEST]	[--close-merge-request CLOSE_MERGE_
↳ MERGE_REQUEST]	[--reassign-merge-request REASSIGN_
↳ REQUEST]	[--merge-merge-request MERGE_MERGE_

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--level <level>

--notification-email <notification_email>

--new-note <new_note>

--new-issue <new_issue>

--reopen-issue <reopen_issue>

--close-issue <close_issue>

--reassign-issue <reassign_issue>

--new-merge-request <new_merge_request>

--reopen-merge-request <reopen_merge_request>

--close-merge-request <close_merge_request>

--reassign-merge-request <reassign_merge_request>

--merge-merge-request <merge_merge_request>

gitlab project-package

usage: gitlab project-package [-h] {list,get,delete} ...

-h, --help

show this help message and exit

gitlab project-package delete

```
usage: gitlab project-package delete [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-package get

```
usage: gitlab project-package get [-h] [--sudo SUDO] --project-id PROJECT_ID  
--id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-package list

```
usage: gitlab project-package list [-h] [--sudo SUDO] --project-id PROJECT_ID  
[--order-by ORDER_BY] [--sort SORT]  
[--package-type PACKAGE_TYPE]  
[--package-name PACKAGE_NAME] [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--order-by <order_by>

--sort <sort>

--package-type <package_type>

--package-name <package_name>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-package-file

```
usage: gitlab project-package-file [-h] {list,delete} ...
```

-h, --help

show this help message and exit

gitlab project-package-file delete

```
usage: gitlab project-package-file delete [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --package-id PACKAGE_ID
                                         --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--package-id <package_id>

--id <id>

gitlab project-package-file list

```
usage: gitlab project-package-file list [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --package-id PACKAGE_ID
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--package-id <package_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-package-pipeline

```
usage: gitlab project-package-pipeline [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab project-package-pipeline list

```
usage: gitlab project-package-pipeline list [-h] [--sudo SUDO] --project-id
                                             PROJECT_ID --package-id PACKAGE_ID
                                             [--page PAGE]
                                             [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--package-id <package_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-pages-domain

```
usage: gitlab project-pages-domain [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-pages-domain create

```
usage: gitlab project-pages-domain create [-h] [--sudo SUDO] --project-id
                                            PROJECT_ID --domain DOMAIN
                                            [--certificate CERTIFICATE]
                                            [--key KEY]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

```
--domain <domain>
--certificate <certificate>
--key <key>
```

gitlab project-pages-domain delete

```
usage: gitlab project-pages-domain delete [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --domain DOMAIN
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--domain <domain>
```

gitlab project-pages-domain get

```
usage: gitlab project-pages-domain get [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --domain DOMAIN
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--domain <domain>
```

gitlab project-pages-domain list

```
usage: gitlab project-pages-domain list [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID [--page PAGE]
                                         [--per-page PER_PAGE] [--get-all]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--page <page>
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab project-pages-domain update

```
usage: gitlab project-pages-domain update [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --domain DOMAIN  
                                         [--certificate CERTIFICATE]  
                                         [--key KEY]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--domain <domain>

--certificate <certificate>

--key <key>

gitlab project-pipeline

```
usage: gitlab project-pipeline [-h] {list,get,create,delete,cancel,retry} ...
```

-h, --help

show this help message and exit

gitlab project-pipeline cancel

```
usage: gitlab project-pipeline cancel [-h] --project-id PROJECT_ID  
                                         [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-pipeline create

```
usage: gitlab project-pipeline create [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --ref REF
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--ref <ref>

gitlab project-pipeline delete

```
usage: gitlab project-pipeline delete [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-pipeline get

```
usage: gitlab project-pipeline get [-h] [--sudo SUDO] --project-id PROJECT_ID  
--id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-pipeline list

```
usage: gitlab project-pipeline list [-h] [--sudo SUDO] --project-id PROJECT_ID  
[--scope SCOPE] [--status STATUS]  
[--source SOURCE] [--ref REF] [--sha SHA]  
[--yaml-errors YAML_ERRORS] [--name NAME]  
[--username USERNAME]  
[--order-by ORDER_BY] [--sort SORT]  
[--page PAGE] [--per-page PER_PAGE]  
[--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--scope <scope>

--status <status>

--source <source>

--ref <ref>

```
--sha <sha>
--yaml-errors <yaml_errors>
--name <name>
--username <username>
--order-by <order_by>
--sort <sort>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-pipeline retry

```
usage: gitlab project-pipeline retry [-h] --project-id PROJECT_ID
                                     [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-pipeline-bridge

```
usage: gitlab project-pipeline-bridge [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab project-pipeline-bridge list

```
usage: gitlab project-pipeline-bridge list [-h] [--sudo SUDO] --project-id
                                             PROJECT_ID --pipeline-id
                                             PIPELINE_ID [--scope SCOPE]
                                             [--page PAGE] [--per-page PER_PAGE]
                                             [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

```
--project-id <project_id>
--pipeline-id <pipeline_id>
--scope <scope>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-pipeline-job

```
usage: gitlab project-pipeline-job [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab project-pipeline-job list

```
usage: gitlab project-pipeline-job list [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --pipeline-id PIPELINE_ID
                                         [--scope SCOPE]
                                         [--include-retried INCLUDE_RETRIED]
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--pipeline-id <pipeline_id>

--scope <scope>

--include-retried <include_retried>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-pipeline-schedule

```
usage: gitlab project-pipeline-schedule [-h]
  list
  get
  create
  update
  delete
  take-ownership
  play
  ...
```

-h, --help

show this help message and exit

gitlab project-pipeline-schedule create

```
usage: gitlab project-pipeline-schedule create [-h] [--sudo SUDO] --project-id
                                               PROJECT_ID --description
                                               DESCRIPTION --ref REF --cron
                                               CRON
                                               [--cron-timezone CRON_TIMEZONE]
                                               [--active ACTIVE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--description <description>

--ref <ref>

--cron <cron>

--cron-timezone <cron_timezone>

--active <active>

gitlab project-pipeline-schedule delete

```
usage: gitlab project-pipeline-schedule delete [-h] [--sudo SUDO] --project-id
                                               PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-pipeline-schedule get

```
usage: gitlab project-pipeline-schedule get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-pipeline-schedule list

```
usage: gitlab project-pipeline-schedule list [-h] [--sudo SUDO] --project-id  
PROJECT_ID [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-pipeline-schedule play

```
usage: gitlab project-pipeline-schedule play [-h] --project-id PROJECT_ID  
[--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-pipeline-schedule take-ownership

```
usage: gitlab project-pipeline-schedule take-ownership [-h] --project-id  
PROJECT_ID  
[--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-pipeline-schedule update

```
usage: gitlab project-pipeline-schedule update [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID  
[--description DESCRIPTION]  
[--ref REF] [--cron CRON]  
[--cron-timezone CRON_TIMEZONE]  
[--active ACTIVE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

--description <description>

--ref <ref>

--cron <cron>

--cron-timezone <cron_timezone>

--active <active>

gitlab project-pipeline-schedule-pipeline

```
usage: gitlab project-pipeline-schedule-pipeline [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab project-pipeline-schedule-pipeline list

```
usage: gitlab project-pipeline-schedule-pipeline list [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --pipeline-schedule-id
                                                    PIPELINE_SCHEDULE_ID
                                                    [--page PAGE]
                                                    [--per-page PER_PAGE]
                                                    [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--pipeline-schedule-id <pipeline_schedule_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-pipeline-schedule-variable

```
usage: gitlab project-pipeline-schedule-variable [-h]
    create
    update
    delete
    ...
```

-h, --help

show this help message and exit

gitlab project-pipeline-schedule-variable create

```
usage: gitlab project-pipeline-schedule-variable create [-h] [--sudo SUDO]
                                                       --project-id
                                                       PROJECT_ID
                                                       --pipeline-schedule-id
                                                       PIPELINE_SCHEDULE_ID
                                                       --key KEY --value
                                                       VALUE
```

-h, --help

show this help message and exit

--sudo <sudo>

```
--project-id <project_id>
--pipeline-schedule-id <pipeline_schedule_id>
--key <key>
--value <value>
```

gitlab project-pipeline-schedule-variable delete

```
usage: gitlab project-pipeline-schedule-variable delete [-h] [--sudo SUDO]
                                                       --project-id
                                                       PROJECT_ID
                                                       --pipeline-schedule-id
                                                       PIPELINE_SCHEDULE_ID
                                                       --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--pipeline-schedule-id <pipeline_schedule_id>

--key <key>

gitlab project-pipeline-schedule-variable update

```
usage: gitlab project-pipeline-schedule-variable update [-h] [--sudo SUDO]
                                                       --project-id
                                                       PROJECT_ID
                                                       --pipeline-schedule-id
                                                       PIPELINE_SCHEDULE_ID
                                                       --key KEY --value
                                                       VALUE
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--pipeline-schedule-id <pipeline_schedule_id>

--key <key>

--value <value>

gitlab project-pipeline-test-report

```
usage: gitlab project-pipeline-test-report [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab project-pipeline-test-report get

```
usage: gitlab project-pipeline-test-report get [-h] [--sudo SUDO] --project-id
                                               PROJECT_ID --pipeline-id
                                               PIPELINE_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--pipeline-id <pipeline_id>

gitlab project-pipeline-test-report-summary

```
usage: gitlab project-pipeline-test-report-summary [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab project-pipeline-test-report-summary get

```
usage: gitlab project-pipeline-test-report-summary get [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --pipeline-id
                                                       PIPELINE_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--pipeline-id <pipeline_id>

gitlab project-pipeline-variable

```
usage: gitlab project-pipeline-variable [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab project-pipeline-variable list

```
usage: gitlab project-pipeline-variable list [-h] [--sudo SUDO] --project-id
                                              PROJECT_ID --pipeline-id
                                              PIPELINE_ID [--page PAGE]
                                              [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--pipeline-id <pipeline_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-protected-branch

```
usage: gitlab project-protected-branch [-h]
  list
  get
  create
  update
  delete
  ...
```

-h, --help

show this help message and exit

gitlab project-protected-branch create

```
usage: gitlab project-protected-branch create [-h] [--sudo SUDO] --project-id
                                              PROJECT_ID --name NAME
                                              [--push-access-level PUSH_ACCESS_LEVEL]
                                              [--merge-access-level MERGE_ACCESS_LEVEL]
                                              [--unprotect-access-level UNPROTECT_ACCESS_
                                               LEVEL]
                                              [--allow-force-push ALLOW_FORCE_PUSH]
                                              [--allowed-to-push ALLOWED_TO_PUSH]
                                              [--allowed-to-merge ALLOWED_TO_MERGE]
                                              [--allowed-to-unprotect ALLOWED_TO_
                                               UNPROTECT]
                                              [--code-owner-approval-required CODE_OWNER_
                                               APPROVAL_REQUIRED]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

--push-access-level <push_access_level>

--merge-access-level <merge_access_level>

--unprotect-access-level <unprotect_access_level>

--allow-force-push <allow_force_push>

--allowed-to-push <allowed_to_push>

--allowed-to-merge <allowed_to_merge>

--allowed-to-unprotect <allowed_to_unprotect>

--code-owner-approval-required <code_owner_approval_required>

gitlab project-protected-branch delete

```
usage: gitlab project-protected-branch delete [-h] [--sudo SUDO] --project-id
                                              PROJECT_ID --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-protected-branch get

```
usage: gitlab project-protected-branch get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-protected-branch list

```
usage: gitlab project-protected-branch list [-h] [--sudo SUDO] --project-id  
PROJECT_ID [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-protected-branch update

```
usage: gitlab project-protected-branch update [-h] [--sudo SUDO] --project-id  
PROJECT_ID --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-protected-environment

```
usage: gitlab project-protected-environment [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab project-protected-environment create

```
usage: gitlab project-protected-environment create [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --name NAME
                                                 --deploy-access-levels
                                                 DEPLOY_ACCESS_LEVELS
                                                 [--required-approval-count REQUIRED_
                                                 APPROVAL_COUNT]
                                                 [--approval-rules APPROVAL_RULES]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

--deploy-access-levels <deploy_access_levels>

--required-approval-count <required_approval_count>

--approval-rules <approval_rules>

gitlab project-protected-environment delete

```
usage: gitlab project-protected-environment delete [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-protected-environment get

```
usage: gitlab project-protected-environment get [-h] [--sudo SUDO]
                                               --project-id PROJECT_ID --name
                                               NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-protected-environment list

```
usage: gitlab project-protected-environment list [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 [--page PAGE]
                                                 [--per-page PER_PAGE]
                                                 [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-protected-tag

```
usage: gitlab project-protected-tag [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab project-protected-tag create

```
usage: gitlab project-protected-tag create [-h] [--sudo SUDO] --project-id  
PROJECT_ID --name NAME  
[--create-access-level CREATE_ACCESS_LEVEL]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

--create-access-level <create_access_level>

gitlab project-protected-tag delete

```
usage: gitlab project-protected-tag delete [-h] [--sudo SUDO] --project-id  
PROJECT_ID --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-protected-tag get

```
usage: gitlab project-protected-tag get [-h] [--sudo SUDO] --project-id  
PROJECT_ID --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-protected-tag list

```
usage: gitlab project-protected-tag list [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID [--page PAGE]
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-push-rules

```
usage: gitlab project-push-rules [-h] {get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-push-rules create

```
usage: gitlab project-push-rules create [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID
                                         [--author-email-regex AUTHOR_EMAIL_REGEX]
                                         [--branch-name-regex BRANCH_NAME_REGEX]
                                         [--commit-committer-check COMMIT_COMMITTER_CHECK]
                                         [--commit-message-negative-regex COMMIT_MESSAGE_
                                         NEGATIVE_REGEX]
                                         [--commit-message-regex COMMIT_MESSAGE_REGEX]
                                         [--deny-delete-tag DENY_DELETE_TAG]
                                         [--file-name-regex FILE_NAME_REGEX]
                                         [--max-file-size MAX_FILE_SIZE]
                                         [--member-check MEMBER_CHECK]
                                         [--prevent-secrets PREVENT_SECRETS]
                                         [--reject-unsigned-commits REJECT_UNSIGNED_
                                         COMMITS]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

```
--author-email-regex <author_email_regex>
--branch-name-regex <branch_name_regex>
--commit-committer-check <commit_committer_check>
--commit-message-negative-regex <commit_message_negative_regex>
--commit-message-regex <commit_message_regex>
--deny-delete-tag <deny_delete_tag>
--file-name-regex <file_name_regex>
--max-file-size <max_file_size>
--member-check <member_check>
--prevent-secrets <prevent_secrets>
--reject-unsigned-commits <reject_unsigned_commits>
```

gitlab project-push-rules delete

```
usage: gitlab project-push-rules delete [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

gitlab project-push-rules get

```
usage: gitlab project-push-rules get [-h] [--sudo SUDO] --project-id
                                      PROJECT_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

gitlab project-push-rules update

```
usage: gitlab project-push-rules update [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID
                                         [--author-email-regex AUTHOR_EMAIL_REGEX]
                                         [--branch-name-regex BRANCH_NAME_REGEX]
                                         [--commit-committer-check COMMIT_COMMITTER_CHECK]
                                         [--commit-message-negative-regex COMMIT_MESSAGE_
                                         ↪NEGATIVE_REGEX]
                                         [--commit-message-regex COMMIT_MESSAGE_REGEX]
                                         [--deny-delete-tag DENY_DELETE_TAG]
                                         [--file-name-regex FILE_NAME_REGEX]
                                         [--max-file-size MAX_FILE_SIZE]
                                         [--member-check MEMBER_CHECK]
                                         [--prevent-secrets PREVENT_SECRETS]
                                         [--reject-unsigned-commits REJECT_UNSIGNED_
                                         ↪COMMITS]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--author-email-regex <author_email_regex>

--branch-name-regex <branch_name_regex>

--commit-committer-check <commit_committer_check>

--commit-message-negative-regex <commit_message_negative_regex>

--commit-message-regex <commit_message_regex>

--deny-delete-tag <deny_delete_tag>

--file-name-regex <file_name_regex>

--max-file-size <max_file_size>

--member-check <member_check>

--prevent-secrets <prevent_secrets>

--reject-unsigned-commits <reject_unsigned_commits>

gitlab project-registry-repository

```
usage: gitlab project-registry-repository [-h] {list,delete} ...
```

-h, --help

show this help message and exit

gitlab project-registry-repository delete

```
usage: gitlab project-registry-repository delete [-h] [--sudo SUDO]
                                                --project-id PROJECT_ID --id
                                                ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-registry-repository list

```
usage: gitlab project-registry-repository list [-h] [--sudo SUDO] --project-id
                                                PROJECT_ID [--page PAGE]
                                                [--per-page PER_PAGE]
                                                [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-registry-tag

```
usage: gitlab project-registry-tag [-h] {list,get,delete,delete-in-bulk} ...
```

-h, --help

show this help message and exit

gitlab project-registry-tag delete

```
usage: gitlab project-registry-tag delete [-h] [--sudo SUDO] --project-id
                                                PROJECT_ID --repository-id
                                                REPOSITORY_ID --name NAME
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--repository-id <repository_id>
--name <name>
```

gitlab project-registry-tag delete-in-bulk

```
usage: gitlab project-registry-tag delete-in-bulk [-h] --project-id PROJECT_ID
                                                --repository-id
                                                REPOSITORY_ID [--sudo SUDO]
                                                --name NAME
                                                --name-regex-delete
                                                NAME_REGEX_DELETE
                                                [--keep-n KEEP_N]
                                                [--name-regex-keep NAME_REGEX_KEEP]
                                                [--older-than OLDER_THAN]
```

-h, --help

show this help message and exit

```
--project-id <project_id>
--repository-id <repository_id>
--sudo <sudo>
--name <name>
--name-regex-delete <name_regex_delete>
--keep-n <keep_n>
--name-regex-keep <name_regex_keep>
--older-than <older_than>
```

gitlab project-registry-tag get

```
usage: gitlab project-registry-tag get [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --repository-id
                                         REPOSITORY_ID --name NAME
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--repository-id <repository_id>
--name <name>
```

gitlab project-registry-tag list

```
usage: gitlab project-registry-tag list [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --repository-id  
                                         REPOSITORY_ID [--page PAGE]  
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--repository-id <repository_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-release

```
usage: gitlab project-release [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-release create

```
usage: gitlab project-release create [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --tag-name TAG_NAME  
                                         [--name NAME] [--description DESCRIPTION]  
                                         [--ref REF] [--assets ASSETS]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--tag-name <tag_name>

--name <name>

--description <description>

--ref <ref>

--assets <assets>

gitlab project-release delete

```
usage: gitlab project-release delete [-h] [--sudo SUDO] --project-id  
PROJECT_ID --tag-name TAG_NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--tag-name <tag_name>

gitlab project-release get

```
usage: gitlab project-release get [-h] [--sudo SUDO] --project-id PROJECT_ID  
--tag-name TAG_NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--tag-name <tag_name>

gitlab project-release list

```
usage: gitlab project-release list [-h] [--sudo SUDO] --project-id PROJECT_ID  
[--order-by ORDER_BY] [--sort SORT]  
[--include-html-description INCLUDE_HTML_DESCRIPTION]  
[--page PAGE] [--per-page PER_PAGE]  
[--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--order-by <order_by>

--sort <sort>

--include-html-description <include_html_description>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-release update

```
usage: gitlab project-release update [-h] [--sudo SUDO] --project-id  
PROJECT_ID --tag-name TAG_NAME  
[--name NAME] [--description DESCRIPTION]  
[--milestones MILESTONES]  
[--released-at RELEASED_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--tag-name <tag_name>

--name <name>

--description <description>

--milestones <milestones>

--released-at <released_at>

gitlab project-release-link

```
usage: gitlab project-release-link [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-release-link create

```
usage: gitlab project-release-link create [-h] [--sudo SUDO] --project-id  
PROJECT_ID --tag-name TAG_NAME  
--name NAME --url URL  
[--filepath FILEPATH]  
[--direct-asset-path DIRECT_ASSET_PATH]  
[--link-type LINK_TYPE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--tag-name <tag_name>

--name <name>

--url <url>

```
--filepath <filepath>
--direct-asset-path <direct_asset_path>
--link-type <link_type>
```

gitlab project-release-link delete

```
usage: gitlab project-release-link delete [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --tag-name TAG_NAME --id
                                         ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--tag-name <tag_name>
```

```
--id <id>
```

gitlab project-release-link get

```
usage: gitlab project-release-link get [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --tag-name TAG_NAME --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--tag-name <tag_name>
```

```
--id <id>
```

gitlab project-release-link list

```
usage: gitlab project-release-link list [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --tag-name TAG_NAME
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--tag-name <tag_name>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-release-link update

```
usage: gitlab project-release-link update [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --tag-name TAG_NAME --id
                                         ID [--name NAME] [--url URL]
                                         [--filepath FILEPATH]
                                         [--direct-asset-path DIRECT_ASSET_PATH]
                                         [--link-type LINK_TYPE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--tag-name <tag_name>

--id <id>

--name <name>

--url <url>

--filepath <filepath>

--direct-asset-path <direct_asset_path>

--link-type <link_type>

gitlab project-remote-mirror

```
usage: gitlab project-remote-mirror [-h] {list,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-remote-mirror create

```
usage: gitlab project-remote-mirror create [-h] [--sudo SUDO] --project-id  
PROJECT_ID --url URL  
[--enabled ENABLED]  
[--only-protected-branches ONLY_PROTECTED_  
→BRANCHES]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--url <url>

--enabled <enabled>

--only-protected-branches <only_protected_branches>

gitlab project-remote-mirror delete

```
usage: gitlab project-remote-mirror delete [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-remote-mirror list

```
usage: gitlab project-remote-mirror list [-h] [--sudo SUDO] --project-id  
PROJECT_ID [--page PAGE]  
[--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-remote-mirror update

```
usage: gitlab project-remote-mirror update [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --id ID  
                                         [--enabled ENABLED]  
                                         [--only-protected-branches ONLY_PROTECTED_  
                                         ↵BRANCHES]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

--enabled <enabled>

--only-protected-branches <only_protected_branches>

gitlab project-resource-group

```
usage: gitlab project-resource-group [-h] {list,get,update} ...
```

-h, --help

show this help message and exit

gitlab project-resource-group get

```
usage: gitlab project-resource-group get [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--key <key>

gitlab project-resource-group list

```
usage: gitlab project-resource-group list [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID [--order-by ORDER_BY]  
                                         [--sort SORT]  
                                         [--include-html-description INCLUDE_HTML_  
                                         ↵DESCRIPTION]  
                                         [--page PAGE] [--per-page PER_PAGE]  
                                         [--get-all]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--order-by <order_by>
--sort <sort>
--include-html-description <include_html_description>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-resource-group update

```
usage: gitlab project-resource-group update [-h] [--sudo SUDO] --project-id
                                             PROJECT_ID --key KEY
                                             [--process-mode PROCESS_MODE]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--key <key>
--process-mode <process_mode>
```

gitlab project-resource-group-upcoming-job

```
usage: gitlab project-resource-group-upcoming-job [-h] {list} ...
```

```
-h, --help
    show this help message and exit
```

gitlab project-resource-group-upcoming-job list

```
usage: gitlab project-resource-group-upcoming-job list [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --resource-group-key
                                                       RESOURCE_GROUP_KEY
                                                       [--page PAGE]
                                                       [--per-page PER_PAGE]
                                                       [--get-all]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--resource-group-key <resource_group_key>
--page <page>
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab project-runner

```
usage: gitlab project-runner [-h] {list,create,delete} ...
```

```
-h, --help
    show this help message and exit
```

gitlab project-runner create

```
usage: gitlab project-runner create [-h] [--sudo SUDO] --project-id PROJECT_ID
                                    --runner-id RUNNER_ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--runner-id <runner_id>
```

gitlab project-runner delete

```
usage: gitlab project-runner delete [-h] [--sudo SUDO] --project-id PROJECT_ID
                                    --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--id <id>
```

gitlab project-runner list

```
usage: gitlab project-runner list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  [--scope SCOPE] [--tag-list TAG_LIST]
                                  [--page PAGE] [--per-page PER_PAGE]
                                  [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--scope <scope>

--tag-list <tag_list>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-secure-file

```
usage: gitlab project-secure-file [-h] {list,get,create,delete,download} ...
```

-h, --help

show this help message and exit

gitlab project-secure-file create

```
usage: gitlab project-secure-file create [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --name NAME --file FILE
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

--file <file>

gitlab project-secure-file delete

```
usage: gitlab project-secure-file delete [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-secure-file download

```
usage: gitlab project-secure-file download [-h] --project-id PROJECT_ID  
                                         [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-secure-file get

```
usage: gitlab project-secure-file get [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-secure-file list

```
usage: gitlab project-secure-file list [-h] [--sudo SUDO] --project-id  
                                         PROJECT_ID [--page PAGE]  
                                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

```
--project-id <project_id>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-service

```
usage: gitlab project-service [-h] {list,get,update,delete,available} ...
```

```
-h, --help
```

show this help message and exit

gitlab project-service available

```
usage: gitlab project-service available [-h] --project-id PROJECT_ID
                                         [--sudo SUDO] --slug SLUG
```

```
-h, --help
```

show this help message and exit

```
--project-id <project_id>
--sudo <sudo>
--slug <slug>
```

gitlab project-service delete

```
usage: gitlab project-service delete [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --slug SLUG
```

```
-h, --help
```

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--slug <slug>
```

gitlab project-service get

```
usage: gitlab project-service get [-h] [--sudo SUDO] --project-id PROJECT_ID
                                 --slug SLUG
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--slug <slug>

gitlab project-service list

```
usage: gitlab project-service list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                   [--page PAGE] [--per-page PER_PAGE]
                                   [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-service update

```
usage: gitlab project-service update [-h] [--sudo SUDO] --project-id
                                     PROJECT_ID --slug SLUG
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--slug <slug>

gitlab project-snippet

```
usage: gitlab project-snippet [-h]
  list
  get
  create
  update
  delete
  user-agent-detail
  content
  ...
```

-h, --help

show this help message and exit

gitlab project-snippet content

```
usage: gitlab project-snippet content [-h] --project-id PROJECT_ID
                                       [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-snippet create

```
usage: gitlab project-snippet create [-h] [--sudo SUDO] --project-id
                                      PROJECT_ID --title TITLE --visibility
                                      VISIBILITY [--description DESCRIPTION]
                                      [--content CONTENT]
                                      [--files FILES | --file-name FILE_NAME]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--title <title>

--visibility <visibility>

--description <description>

--content <content>

--files <files>

--file-name <file_name>

gitlab project-snippet delete

```
usage: gitlab project-snippet delete [-h] [--sudo SUDO] --project-id  
PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-snippet get

```
usage: gitlab project-snippet get [-h] [--sudo SUDO] --project-id PROJECT_ID  
--id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-snippet list

```
usage: gitlab project-snippet list [-h] [--sudo SUDO] --project-id PROJECT_ID  
[--page PAGE] [--per-page PER_PAGE]  
[--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-snippet update

```
usage: gitlab project-snippet update [-h] [--sudo SUDO] --project-id  
                                     PROJECT_ID --id ID [--title TITLE]  
                                     [--files FILES] [--file-name FILE_NAME]  
                                     [--content CONTENT]  
                                     [--visibility VISIBILITY]  
                                     [--description DESCRIPTION]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

--title <title>

--files <files>

--file-name <file_name>

--content <content>

--visibility <visibility>

--description <description>

gitlab project-snippet user-agent-detail

```
usage: gitlab project-snippet user-agent-detail [-h] --project-id PROJECT_ID  
                                                [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--project-id <project_id>

--sudo <sudo>

--id <id>

gitlab project-snippet-award-emoji

```
usage: gitlab project-snippet-award-emoji [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab project-snippet-award-emoji create

```
usage: gitlab project-snippet-award-emoji create [-h] [--sudo SUDO]
                                                --project-id PROJECT_ID
                                                --snippet-id SNIPPET_ID
                                                --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--snippet-id <snippet_id>

--name <name>

gitlab project-snippet-award-emoji delete

```
usage: gitlab project-snippet-award-emoji delete [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --snippet-id SNIPPET_ID --id
                                                 ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--snippet-id <snippet_id>

--id <id>

gitlab project-snippet-award-emoji get

```
usage: gitlab project-snippet-award-emoji get [-h] [--sudo SUDO] --project-id
                                               PROJECT_ID --snippet-id
                                               SNIPPET_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--snippet-id <snippet_id>

--id <id>

gitlab project-snippet-award-emoji list

```
usage: gitlab project-snippet-award-emoji list [-h] [--sudo SUDO] --project-id  
PROJECT_ID --snippet-id  
SNIPPET_ID [--page PAGE]  
[--per-page PER_PAGE]  
[--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--snippet-id <snippet_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-snippet-discussion

```
usage: gitlab project-snippet-discussion [-h] {list,get,create} ...
```

-h, --help

show this help message and exit

gitlab project-snippet-discussion create

```
usage: gitlab project-snippet-discussion create [-h] [--sudo SUDO]  
--project-id PROJECT_ID  
--snippet-id SNIPPET_ID --body  
BODY [--created-at CREATED_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--snippet-id <snippet_id>

--body <body>

--created-at <created_at>

gitlab project-snippet-discussion get

```
usage: gitlab project-snippet-discussion get [-h] [--sudo SUDO] --project-id  
                                PROJECT_ID --snippet-id  
                                SNIPPET_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--snippet-id <snippet_id>

--id <id>

gitlab project-snippet-discussion list

```
usage: gitlab project-snippet-discussion list [-h] [--sudo SUDO] --project-id  
                                PROJECT_ID --snippet-id  
                                SNIPPET_ID [--page PAGE]  
                                [--per-page PER_PAGE]  
                                [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--snippet-id <snippet_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-snippet-discussion-note

```
usage: gitlab project-snippet-discussion-note [-h]  
      get  
      create  
      update  
      delete  
      ...
```

-h, --help

show this help message and exit

gitlab project-snippet-discussion-note create

```
usage: gitlab project-snippet-discussion-note create [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --snippet-id SNIPPET_ID
                                                    --discussion-id
                                                    DISCUSSION_ID --body BODY
                                                    [--created-at CREATED_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--snippet-id <snippet_id>

--discussion-id <discussion_id>

--body <body>

--created-at <created_at>

gitlab project-snippet-discussion-note delete

```
usage: gitlab project-snippet-discussion-note delete [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --snippet-id SNIPPET_ID
                                                    --discussion-id
                                                    DISCUSSION_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--snippet-id <snippet_id>

--discussion-id <discussion_id>

--id <id>

gitlab project-snippet-discussion-note get

```
usage: gitlab project-snippet-discussion-note get [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --snippet-id SNIPPET_ID
                                                    --discussion-id
                                                    DISCUSSION_ID --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--snippet-id <snippet_id>
--discussion-id <discussion_id>
--id <id>
```

gitlab project-snippet-discussion-note update

```
usage: gitlab project-snippet-discussion-note update [-h] [--sudo SUDO]
                                                    --project-id PROJECT_ID
                                                    --snippet-id SNIPPET_ID
                                                    --discussion-id
                                                    DISCUSSION_ID --id ID
                                                    --body BODY
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--snippet-id <snippet_id>
--discussion-id <discussion_id>
--id <id>
--body <body>
```

gitlab project-snippet-note

```
usage: gitlab project-snippet-note [-h] {list,get,create,update,delete} ...
```

```
-h, --help
    show this help message and exit
```

gitlab project-snippet-note create

```
usage: gitlab project-snippet-note create [-h] [--sudo SUDO] --project-id
                                            PROJECT_ID --snippet-id SNIPPET_ID
                                            --body BODY
```

```
-h, --help
    show this help message and exit
```

```
--sudo <sudo>
--project-id <project_id>
--snippet-id <snippet_id>
--body <body>
```

gitlab project-snippet-note delete

```
usage: gitlab project-snippet-note delete [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --snippet-id SNIPPET_ID
                                         --id ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--snippet-id <snippet_id>
--id <id>
```

gitlab project-snippet-note get

```
usage: gitlab project-snippet-note get [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --snippet-id SNIPPET_ID --id
                                         ID
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--snippet-id <snippet_id>
--id <id>
```

gitlab project-snippet-note list

```
usage: gitlab project-snippet-note list [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --snippet-id SNIPPET_ID
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--snippet-id <snippet_id>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-snippet-note update

```
usage: gitlab project-snippet-note update [-h] [--sudo SUDO] --project-id
                                         PROJECT_ID --snippet-id SNIPPET_ID
                                         --id ID --body BODY
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--snippet-id <snippet_id>
--id <id>
--body <body>
```

gitlab project-snippet-note-award-emoji

```
usage: gitlab project-snippet-note-award-emoji [-h]
  list
  get
  create
  delete
  ...
```

-h, --help

show this help message and exit

gitlab project-snippet-note-award-emoji create

```
usage: gitlab project-snippet-note-award-emoji create [-h] [--sudo SUDO]
                                         --project-id PROJECT_ID
                                         --snippet-id SNIPPET_ID
                                         --note-id NOTE_ID --name
                                         NAME
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--snippet-id <snippet_id>
--note-id <note_id>
--name <name>
```

gitlab project-snippet-note-award-emoji delete

```
usage: gitlab project-snippet-note-award-emoji delete [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --snippet-id SNIPPET_ID
                                                       --note-id NOTE_ID --id
                                                       ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--snippet-id <snippet_id>
--note-id <note_id>
--id <id>
```

gitlab project-snippet-note-award-emoji get

```
usage: gitlab project-snippet-note-award-emoji get [-h] [--sudo SUDO]
                                                       --project-id PROJECT_ID
                                                       --snippet-id SNIPPET_ID
                                                       --note-id NOTE_ID --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--project-id <project_id>
--snippet-id <snippet_id>
--note-id <note_id>
--id <id>
```

gitlab project-snippet-note-award-emoji list

```
usage: gitlab project-snippet-note-award-emoji list [-h] [--sudo SUDO]
                                                 --project-id PROJECT_ID
                                                 --snippet-id SNIPPET_ID
                                                 --note-id NOTE_ID
                                                 [--page PAGE]
                                                 [--per-page PER_PAGE]
                                                 [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--snippet-id <snippet_id>

--note-id <note_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-storage

```
usage: gitlab project-storage [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab project-storage get

```
usage: gitlab project-storage get [-h] [--sudo SUDO] --project-id PROJECT_ID
                                 --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-tag

```
usage: gitlab project-tag [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab project-tag create

```
usage: gitlab project-tag create [-h] [--sudo SUDO] --project-id PROJECT_ID
                                 --tag-name TAG_NAME --ref REF
                                 [--message MESSAGE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--tag-name <tag_name>

--ref <ref>

--message <message>

gitlab project-tag delete

```
usage: gitlab project-tag delete [-h] [--sudo SUDO] --project-id PROJECT_ID
                                 --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-tag get

```
usage: gitlab project-tag get [-h] [--sudo SUDO] --project-id PROJECT_ID
                               --name NAME
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--name <name>

gitlab project-tag list

```
usage: gitlab project-tag list [-h] [--sudo SUDO] --project-id PROJECT_ID  
                               [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-trigger

```
usage: gitlab project-trigger [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-trigger create

```
usage: gitlab project-trigger create [-h] [--sudo SUDO] --project-id  
                                   PROJECT_ID --description DESCRIPTION
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--description <description>

gitlab project-trigger delete

```
usage: gitlab project-trigger delete [-h] [--sudo SUDO] --project-id  
                                   PROJECT_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-trigger get

```
usage: gitlab project-trigger get [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                 --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

gitlab project-trigger list

```
usage: gitlab project-trigger list [-h] [--sudo SUDO] --project-id PROJECT_ID  
                                 [--page PAGE] [--per-page PER_PAGE]  
                                 [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-trigger update

```
usage: gitlab project-trigger update [-h] [--sudo SUDO] --project-id  
                                     PROJECT_ID --id ID --description  
                                     DESCRIPTION
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--id <id>

--description <description>

gitlab project-user

```
usage: gitlab project-user [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab project-user list

```
usage: gitlab project-user list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                [--search SEARCH] [--skip-users SKIP_USERS]
                                [--page PAGE] [--per-page PER_PAGE]
                                [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--search <search>

--skip-users <skip_users>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-variable

```
usage: gitlab project-variable [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab project-variable create

```
usage: gitlab project-variable create [-h] [--sudo SUDO] --project-id
                                      PROJECT_ID --key KEY --value VALUE
                                      [--protected PROTECTED]
                                      [--variable-type VARIABLE_TYPE]
                                      [--masked MASKED]
                                      [--environment-scope ENVIRONMENT_SCOPE]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--key <key>
--value <value>
--protected <protected>
--variable-type <variable_type>
--masked <masked>
--environment-scope <environment_scope>
```

gitlab project-variable delete

```
usage: gitlab project-variable delete [-h] [--sudo SUDO] --project-id
PROJECT_ID --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--key <key>

gitlab project-variable get

```
usage: gitlab project-variable get [-h] [--sudo SUDO] --project-id PROJECT_ID
--key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--key <key>

gitlab project-variable list

```
usage: gitlab project-variable list [-h] [--sudo SUDO] --project-id PROJECT_ID
[--page PAGE] [--per-page PER_PAGE]
[--get-all]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--project-id <project_id>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab project-variable update

```
usage: gitlab project-variable update [-h] [--sudo SUDO] --project-id
                                      PROJECT_ID --key KEY --value VALUE
                                      [--protected PROTECTED]
                                      [--variable-type VARIABLE_TYPE]
                                      [--masked MASKED]
                                      [--environment-scope ENVIRONMENT_SCOPE]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
```

```
--project-id <project_id>
```

```
--key <key>
```

```
--value <value>
```

```
--protected <protected>
```

```
--variable-type <variable_type>
```

```
--masked <masked>
```

```
--environment-scope <environment_scope>
```

gitlab project-wiki

```
usage: gitlab project-wiki [-h] {list,get,create,update,delete,upload} ...
```

-h, --help

show this help message and exit

gitlab project-wiki create

```
usage: gitlab project-wiki create [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  --title TITLE --content CONTENT
                                  [--format FORMAT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--title <title>

--content <content>

--format <format>

gitlab project-wiki delete

```
usage: gitlab project-wiki delete [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  --slug SLUG
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--slug <slug>

gitlab project-wiki get

```
usage: gitlab project-wiki get [-h] [--sudo SUDO] --project-id PROJECT_ID
                                --slug SLUG
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--slug <slug>

gitlab project-wiki list

```
usage: gitlab project-wiki list [-h] [--sudo SUDO] --project-id PROJECT_ID
                                [--with-content WITH_CONTENT] [--page PAGE]
                                [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--with-content <with_content>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab project-wiki update

```
usage: gitlab project-wiki update [-h] [--sudo SUDO] --project-id PROJECT_ID
                                  --slug SLUG [--title TITLE]
                                  [--content CONTENT] [--format FORMAT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--project-id <project_id>

--slug <slug>

--title <title>

--content <content>

--format <format>

gitlab project-wiki upload

```
usage: gitlab project-wiki upload [-h] --project-id PROJECT_ID [--sudo SUDO]
                                  --slug SLUG --filename FILENAME --filepath
                                  FILEPATH
```

-h, --help

show this help message and exit

--project-id <project_id>

```
--sudo <sudo>
--slug <slug>
--filename <filename>
--filepath <filepath>
```

gitlab registry-repository

```
usage: gitlab registry-repository [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab registry-repository get

```
usage: gitlab registry-repository get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab runner

```
usage: gitlab runner [-h] {list,get,create,update,delete,all,verify} ...
```

-h, --help

show this help message and exit

gitlab runner all

```
usage: gitlab runner all [-h] --id ID [--scope SCOPE]
```

-h, --help

show this help message and exit

--id <id>

--scope <scope>

gitlab runner create

```
usage: gitlab runner create [-h] [--sudo SUDO] --token TOKEN
                            [--description DESCRIPTION] [--info INFO]
                            [--active ACTIVE] [--locked LOCKED]
                            [--run-untagged RUN_UNTAGGED]
                            [--tag-list TAG_LIST]
                            [--access-level ACCESS_LEVEL]
                            [--maximum-timeout MAXIMUM_TIMEOUT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--token <token>

--description <description>

--info <info>

--active <active>

--locked <locked>

--run-untagged <run_untagged>

--tag-list <tag_list>

--access-level <access_level>

--maximum-timeout <maximum_timeout>

gitlab runner delete

```
usage: gitlab runner delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab runner get

```
usage: gitlab runner get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab runner list

```
usage: gitlab runner list [-h] [--sudo SUDO] [--scope SCOPE] [--type TYPE]
                           [--status STATUS] [--paused PAUSED]
                           [--tag-list TAG_LIST] [--page PAGE]
                           [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--scope <scope>

--type <type>

--status <status>

--paused <paused>

--tag-list <tag_list>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab runner update

```
usage: gitlab runner update [-h] [--sudo SUDO] --id ID
                            [--description DESCRIPTION] [--active ACTIVE]
                            [--tag-list TAG_LIST]
                            [--run-untagged RUN_UNTAGGED] [--locked LOCKED]
                            [--access-level ACCESS_LEVEL]
                            [--maximum-timeout MAXIMUM_TIMEOUT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

--description <description>

--active <active>

--tag-list <tag_list>

--run-untagged <run_untagged>

--locked <locked>

--access-level <access_level>

--maximum-timeout <maximum_timeout>

gitlab runner verify

```
usage: gitlab runner verify [-h] --id ID --token TOKEN
```

-h, --help

show this help message and exit

--id <id>

--token <token>

gitlab runner-all

```
usage: gitlab runner-all [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab runner-all list

```
usage: gitlab runner-all list [-h] [--sudo SUDO] [--scope SCOPE] [--type TYPE]
                               [--status STATUS] [--paused PAUSED]
                               [--tag-list TAG_LIST] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--scope <scope>

--type <type>

--status <status>

--paused <paused>

--tag-list <tag_list>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab runner-job

```
usage: gitlab runner-job [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab runner-job list

```
usage: gitlab runner-job list [-h] [--sudo SUDO] --runner-id RUNNER_ID
                               [--status STATUS] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--runner-id <runner_id>

--status <status>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab shared-project

```
usage: gitlab shared-project [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab shared-project list

```
usage: gitlab shared-project list [-h] [--sudo SUDO] --group-id GROUP_ID
                                   [--archived ARCHIVED]
                                   [--visibility VISIBILITY]
                                   [--order-by ORDER_BY] [--sort SORT]
                                   [--search SEARCH] [--simple SIMPLE]
                                   [--starred STARRED]
                                   [--with-issues-enabled WITH_ISSUES_ENABLED]
                                   [--with-merge-requests-enabled WITH_MERGE_REQUESTS_
                                   ↪ENABLED]
                                   [--min-access-level MIN_ACCESS_LEVEL]
                                   [--with-custom-attributes WITH_CUSTOM_ATTRIBUTES]
                                   [--page PAGE] [--per-page PER_PAGE]
                                   [--get-all]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--group-id <group_id>
--archived <archived>
--visibility <visibility>
--order-by <order_by>
--sort <sort>
--search <search>
--simple <simple>
--starred <starred>
--with-issues-enabled <with_issues_enabled>
--with-merge-requests-enabled <with_merge_requests_enabled>
--min-access-level <min_access_level>
--with-custom-attributes <with_custom_attributes>
--page <page>
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab snippet

```
usage: gitlab snippet [-h]
list
get
create
update
delete
user-agent-detail
content
public
...
```

```
-h, --help
    show this help message and exit
```

gitlab snippet content

```
usage: gitlab snippet content [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab snippet create

```
usage: gitlab snippet create [-h] [--sudo SUDO] --title TITLE
                             [--description DESCRIPTION] [--content CONTENT]
                             [--visibility VISIBILITY]
                             [--files FILES | --file-name FILE_NAME]
```

-h, --help

show this help message and exit

--sudo <sudo>

--title <title>

--description <description>

--content <content>

--visibility <visibility>

--files <files>

--file-name <file_name>

gitlab snippet delete

```
usage: gitlab snippet delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab snippet get

```
usage: gitlab snippet get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab snippet list

```
usage: gitlab snippet list [-h] [--sudo SUDO] [--page PAGE]
                           [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab snippet public

```
usage: gitlab snippet public [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab snippet update

```
usage: gitlab snippet update [-h] [--sudo SUDO] --id ID [--title TITLE]
                             [--files FILES] [--file-name FILE_NAME]
                             [--content CONTENT] [--visibility VISIBILITY]
                             [--description DESCRIPTION]
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

--title <title>

```
--files <files>
--file-name <file_name>
--content <content>
--visibility <visibility>
--description <description>
```

gitlab snippet user-agent-detail

```
usage: gitlab snippet user-agent-detail [-h] --id ID
```

-h, --help
show this help message and exit
--id <id>

gitlab starred-project

```
usage: gitlab starred-project [-h] {list} ...
```

-h, --help
show this help message and exit

gitlab starred-project list

```
usage: gitlab starred-project list [-h] [--sudo SUDO] --user-id USER_ID
                                   [--archived ARCHIVED]
                                   [--membership MEMBERSHIP]
                                   [--min-access-level MIN_ACCESS_LEVEL]
                                   [--order-by ORDER_BY] [--owned OWNED]
                                   [--search SEARCH] [--simple SIMPLE]
                                   [--sort SORT] [--starred STARRED]
                                   [--statistics STATISTICS]
                                   [--visibility VISIBILITY]
                                   [--with-custom-attributes WITH_CUSTOM_ATTRIBUTES]
                                   [--with-issues-enabled WITH_ISSUES_ENABLED]
                                   [--with-merge-requests-enabled WITH_MERGE_REQUESTS_
                                   ↵ENABLED]
                                   [--page PAGE] [--per-page PER_PAGE]
                                   [--get-all]
```

-h, --help
show this help message and exit
--sudo <sudo>
--user-id <user_id>

```
--archived <archived>
--membership <membership>
--min-access-level <min_access_level>
--order-by <order_by>
--owned <owned>
--search <search>
--simple <simple>
--sort <sort>
--starred <starred>
--statistics <statistics>
--visibility <visibility>
--with-custom-attributes <with_custom_attributes>
--with-issues-enabled <with_issues_enabled>
--with-merge-requests-enabled <with_merge_requests_enabled>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab todo

```
usage: gitlab todo [-h] {list,delete,mark-as-done,mark-all-as-done} ...
```

-h, --help

show this help message and exit

gitlab todo delete

```
usage: gitlab todo delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab todo list

```
usage: gitlab todo list [-h] [--sudo SUDO] [--action ACTION]
                        [--author-id AUTHOR_ID] [--project-id PROJECT_ID]
                        [--state STATE] [--type TYPE] [--page PAGE]
                        [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--action <action>

--author-id <author_id>

--project-id <project_id>

--state <state>

--type <type>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab todo mark-all-as-done

```
usage: gitlab todo mark-all-as-done [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab todo mark-as-done

```
usage: gitlab todo mark-as-done [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab topic

```
usage: gitlab topic [-h] {list,get,create,update,delete,merge} ...
```

-h, --help

show this help message and exit

gitlab topic create

```
usage: gitlab topic create [-h] [--sudo SUDO] --name NAME [--avatar AVATAR]
                           [--description DESCRIPTION] [--title TITLE]
```

-h, --help

show this help message and exit

--sudo <sudo>

--name <name>

--avatar <avatar>

--description <description>

--title <title>

gitlab topic delete

```
usage: gitlab topic delete [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab topic get

```
usage: gitlab topic get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab topic list

```
usage: gitlab topic list [-h] [--sudo SUDO] [--page PAGE]
                         [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab topic merge

```
usage: gitlab topic merge [-h] --id ID --source-topic-id SOURCE_TOPIC_ID
                          --target-topic-id TARGET_TOPIC_ID
```

-h, --help

show this help message and exit

--id <id>

--source-topic-id <source_topic_id>

--target-topic-id <target_topic_id>

gitlab topic update

```
usage: gitlab topic update [-h] [--sudo SUDO] --id ID [--avatar AVATAR]
                           [--description DESCRIPTION] [--name NAME]
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

--avatar <avatar>

--description <description>

--name <name>

gitlab user

```
usage: gitlab user [-h]
  list
  get
  create
  update
  delete
  block
  follow
  unfollow
  unblock
  deactivate
  activate
  approve
  reject
  ban
  unban
  ...
```

-h, --help

show this help message and exit

gitlab user activate

```
usage: gitlab user activate [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab user approve

```
usage: gitlab user approve [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab user ban

```
usage: gitlab user ban [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab user block

```
usage: gitlab user block [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab user create

```
usage: gitlab user create [-h] [--sudo SUDO] [--email EMAIL]
                           [--username USERNAME] [--name NAME]
                           [--password PASSWORD]
                           [--reset-password RESET_PASSWORD] [--skype SKYPE]
                           [--linkedin LINKEDIN] [--twitter TWITTER]
                           [--projects-limit PROJECTS_LIMIT]
                           [--extern-uid EXTERN_UID] [--provider PROVIDER]
                           [--bio BIO] [--admin ADMIN]
                           [--can-create-group CAN_CREATE_GROUP]
                           [--website-url WEBSITE_URL]
                           [--skip-confirmation SKIP_CONFIRMATION]
                           [--external EXTERNAL] [--organization ORGANIZATION]
                           [--location LOCATION] [--avatar AVATAR]
                           [--public-email PUBLIC_EMAIL]
                           [--private-profile PRIVATE_PROFILE]
                           [--color-scheme-id COLOR_SCHEME_ID]
                           [--theme-id THEME_ID]
```

-h, --help

show this help message and exit

--sudo <sudo>

--email <email>

--username <username>

--name <name>

--password <password>

--reset-password <reset_password>

--skype <skype>

--linkedin <linkedin>

--twitter <twitter>

--projects-limit <projects_limit>

--extern-uid <extern_uid>

--provider <provider>

```
--bio <bio>
--admin <admin>
--can-create-group <can_create_group>
--website-url <website_url>
--skip-confirmation <skip_confirmation>
--external <external>
--organization <organization>
--location <location>
--avatar <avatar>
--public-email <public_email>
--private-profile <private_profile>
--color-scheme-id <color_scheme_id>
--theme-id <theme_id>
```

gitlab user deactivate

```
usage: gitlab user deactivate [-h] --id ID
```

-h, --help
show this help message and exit
--id <id>

gitlab user delete

```
usage: gitlab user delete [-h] [--sudo SUDO] --id ID
```

-h, --help
show this help message and exit
--sudo <sudo>
--id <id>

gitlab user follow

```
usage: gitlab user follow [-h] --id ID
```

-h, --help

show this help message and exit

--id <id>

gitlab user get

```
usage: gitlab user get [-h] [--sudo SUDO] --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

gitlab user list

```
usage: gitlab user list [-h] [--sudo SUDO] [--active ACTIVE]
                        [--blocked BLOCKED] [--username USERNAME]
                        [--extern-uid EXTERN_UID] [--provider PROVIDER]
                        [--external EXTERNAL] [--search SEARCH]
                        [--custom-attributes CUSTOM_ATTRIBUTES]
                        [--status STATUS] [--two-factor TWO_FACTOR]
                        [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--active <active>

--blocked <blocked>

--username <username>

--extern-uid <extern_uid>

--provider <provider>

--external <external>

--search <search>

--custom-attributes <custom_attributes>

--status <status>

--two-factor <two_factor>

```
--page <page>
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab user reject

```
usage: gitlab user reject [-h] --id ID
```

```
-h, --help
    show this help message and exit
--id <id>
```

gitlab user unban

```
usage: gitlab user unban [-h] --id ID
```

```
-h, --help
    show this help message and exit
--id <id>
```

gitlab user unblock

```
usage: gitlab user unblock [-h] --id ID
```

```
-h, --help
    show this help message and exit
--id <id>
```

gitlab user unfollow

```
usage: gitlab user unfollow [-h] --id ID
```

```
-h, --help
    show this help message and exit
--id <id>
```

gitlab user update

```
usage: gitlab user update [-h] [--sudo SUDO] --id ID --email EMAIL --username
                          USERNAME --name NAME [--password PASSWORD]
                          [--skype SKYPE] [--linkedin LINKEDIN]
                          [--twitter TWITTER]
                          [--projects-limit PROJECTS_LIMIT]
                          [--extern-uid EXTERN_UID] [--provider PROVIDER]
                          [--bio BIO] [--admin ADMIN]
                          [--can-create-group CAN_CREATE_GROUP]
                          [--website-url WEBSITE_URL]
                          [--skip-reconfirmation SKIP_RECONFIRMATION]
                          [--external EXTERNAL] [--organization ORGANIZATION]
                          [--location LOCATION] [--avatar AVATAR]
                          [--public-email PUBLIC_EMAIL]
                          [--private-profile PRIVATE_PROFILE]
                          [--color-scheme-id COLOR_SCHEME_ID]
                          [--theme-id THEME_ID]
```

-h, --help

show this help message and exit

--sudo <sudo>

--id <id>

--email <email>

--username <username>

--name <name>

--password <password>

--skype <skype>

--linkedin <linkedin>

--twitter <twitter>

--projects-limit <projects_limit>

--extern-uid <extern_uid>

--provider <provider>

--bio <bio>

--admin <admin>

--can-create-group <can_create_group>

--website-url <website_url>

--skip-reconfirmation <skip_reconfirmation>

--external <external>

```
--organization <organization>
--location <location>
--avatar <avatar>
--public-email <public_email>
--private-profile <private_profile>
--color-scheme-id <color_scheme_id>
--theme-id <theme_id>
```

gitlab user-activities

```
usage: gitlab user-activities [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab user-activities list

```
usage: gitlab user-activities list [-h] [--sudo SUDO] [--page PAGE]
                                   [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab user-custom-attribute

```
usage: gitlab user-custom-attribute [-h] {list,get,delete} ...
```

-h, --help

show this help message and exit

gitlab user-custom-attribute delete

```
usage: gitlab user-custom-attribute delete [-h] [--sudo SUDO] --user-id
                                         USER_ID --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>**--user-id <user_id>****--key <key>****gitlab user-custom-attribute get**

```
usage: gitlab user-custom-attribute get [-h] [--sudo SUDO] --user-id USER_ID
                                         --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>**--user-id <user_id>****--key <key>****gitlab user-custom-attribute list**

```
usage: gitlab user-custom-attribute list [-h] [--sudo SUDO] --user-id USER_ID
                                         [--page PAGE] [--per-page PER_PAGE]
                                         [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>**--user-id <user_id>****--page <page>****--per-page <per_page>****--get-all**

Return all items from the server, without pagination.

gitlab user-email

```
usage: gitlab user-email [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab user-email create

```
usage: gitlab user-email create [-h] [--sudo SUDO] --user-id USER_ID --email  
                                EMAIL
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--email <email>

gitlab user-email delete

```
usage: gitlab user-email delete [-h] [--sudo SUDO] --user-id USER_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--id <id>

gitlab user-email get

```
usage: gitlab user-email get [-h] [--sudo SUDO] --user-id USER_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--id <id>

gitlab user-email list

```
usage: gitlab user-email list [-h] [--sudo SUDO] --user-id USER_ID
                               [--page PAGE] [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab user-event

```
usage: gitlab user-event [-h] {list} ...
```

-h, --help

show this help message and exit

gitlab user-event list

```
usage: gitlab user-event list [-h] [--sudo SUDO] --user-id USER_ID
                               [--action ACTION] [--target-type TARGET_TYPE]
                               [--before BEFORE] [--after AFTER] [--sort SORT]
                               [--scope SCOPE] [--page PAGE]
                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--action <action>

--target-type <target_type>

--before <before>

--after <after>

--sort <sort>

--scope <scope>

--page <page>

```
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab user-gpg-key

```
usage: gitlab user-gpg-key [-h] {list,get,create,delete} ...
```

```
-h, --help
    show this help message and exit
```

gitlab user-gpg-key create

```
usage: gitlab user-gpg-key create [-h] [--sudo SUDO] --user-id USER_ID --key
                                  KEY
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--user-id <user_id>
--key <key>
```

gitlab user-gpg-key delete

```
usage: gitlab user-gpg-key delete [-h] [--sudo SUDO] --user-id USER_ID --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--user-id <user_id>
--id <id>
```

gitlab user-gpg-key get

```
usage: gitlab user-gpg-key get [-h] [--sudo SUDO] --user-id USER_ID --id ID
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--user-id <user_id>
--id <id>
```

gitlab user-gpg-key list

```
usage: gitlab user-gpg-key list [-h] [--sudo SUDO] --user-id USER_ID  
                                [--page PAGE] [--per-page PER_PAGE]  
                                [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab user-impersonation-token

```
usage: gitlab user-impersonation-token [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab user-impersonation-token create

```
usage: gitlab user-impersonation-token create [-h] [--sudo SUDO] --user-id  
                                                USER_ID --name NAME --scopes  
                                                SCOPES [--expires-at EXPIRES_AT]
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--name <name>

--scopes <scopes>

--expires-at <expires_at>

gitlab user-impersonation-token delete

```
usage: gitlab user-impersonation-token delete [-h] [--sudo SUDO] --user-id
                                               USER_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--id <id>

gitlab user-impersonation-token get

```
usage: gitlab user-impersonation-token get [-h] [--sudo SUDO] --user-id
                                              USER_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--id <id>

gitlab user-impersonation-token list

```
usage: gitlab user-impersonation-token list [-h] [--sudo SUDO] --user-id
                                               USER_ID [--state STATE]
                                               [--page PAGE]
                                               [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--state <state>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab user-key

```
usage: gitlab user-key [-h] {list,get,create,delete} ...
```

-h, --help

show this help message and exit

gitlab user-key create

```
usage: gitlab user-key create [-h] [--sudo SUDO] --user-id USER_ID --title
                               TITLE --key KEY
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--title <title>

--key <key>

gitlab user-key delete

```
usage: gitlab user-key delete [-h] [--sudo SUDO] --user-id USER_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--id <id>

gitlab user-key get

```
usage: gitlab user-key get [-h] [--sudo SUDO] --user-id USER_ID --id ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--id <id>

gitlab user-key list

```
usage: gitlab user-key list [-h] [--sudo SUDO] --user-id USER_ID [--page PAGE]
                            [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--page <page>

--per-page <per_page>

--get-all

Return all items from the server, without pagination.

gitlab user-membership

```
usage: gitlab user-membership [-h] {list,get} ...
```

-h, --help

show this help message and exit

gitlab user-membership get

```
usage: gitlab user-membership get [-h] [--sudo SUDO] --user-id USER_ID
                                  --source-id SOURCE_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--source-id <source_id>

gitlab user-membership list

```
usage: gitlab user-membership list [-h] [--sudo SUDO] --user-id USER_ID
                                    [--type TYPE] [--page PAGE]
                                    [--per-page PER_PAGE] [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

```
--type <type>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab user-personal-access-token

```
usage: gitlab user-personal-access-token [-h] {create} ...
```

```
-h, --help
```

show this help message and exit

gitlab user-personal-access-token create

```
usage: gitlab user-personal-access-token create [-h] [--sudo SUDO] --user-id
                                                USER_ID --name NAME --scopes
                                                SCOPES
                                                [--expires-at EXPIRES_AT]
```

```
-h, --help
```

show this help message and exit

```
--sudo <sudo>
```

```
--user-id <user_id>
```

```
--name <name>
```

```
--scopes <scopes>
```

```
--expires-at <expires_at>
```

gitlab user-project

```
usage: gitlab user-project [-h] {list,create} ...
```

```
-h, --help
```

show this help message and exit

gitlab user-project create

```
usage: gitlab user-project create [-h] [--sudo SUDO] --user-id USER_ID --name
                                  NAME [--default-branch DEFAULT_BRANCH]
                                  [--issues-enabled ISSUES_ENABLED]
                                  [--wall-enabled WALL_ENABLED]
                                  [--merge-requests-enabled MERGE_REQUESTS_ENABLED]
                                  [--wiki-enabled WIKI_ENABLED]
                                  [--snippets-enabled SNIPPETS_ENABLED]
                                  [--squash-option SQUASH_OPTION]
                                  [--public PUBLIC] [--visibility VISIBILITY]
                                  [--description DESCRIPTION]
                                  [--builds-enabled BUILDS_ENABLED]
                                  [--public-builds PUBLIC_BUILDS]
                                  [--import-url IMPORT_URL]
                                  [--only-allow-merge-if-build-succeeds ONLY_ALLOW_MERGE_
→ IF_BUILD_SUCCEEDS]
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--name <name>

--default-branch <default_branch>

--issues-enabled <issues_enabled>

--wall-enabled <wall_enabled>

--merge-requests-enabled <merge_requests_enabled>

--wiki-enabled <wiki_enabled>

--snippets-enabled <snippets_enabled>

--squash-option <squash_option>

--public <public>

--visibility <visibility>

--description <description>

--builds-enabled <builds_enabled>

--public-builds <public_builds>

--import-url <import_url>

--only-allow-merge-if-build-succeeds <only_allow_merge_if_build_succeeds>

gitlab user-project list

```
usage: gitlab user-project list [-h] [--sudo SUDO] --user-id USER_ID
                                [--archived ARCHIVED]
                                [--visibility VISIBILITY]
                                [--order-by ORDER_BY] [--sort SORT]
                                [--search SEARCH] [--simple SIMPLE]
                                [--owned OWNED] [--membership MEMBERSHIP]
                                [--starred STARRED] [--statistics STATISTICS]
                                [--with-issues-enabled WITH_ISSUES_ENABLED]
                                [--with-merge-requests-enabled WITH_MERGE_REQUESTS_
                                ↪ENABLED]
                                [--with-custom-attributes WITH_CUSTOM_ATTRIBUTES]
                                [--with-programming-language WITH_PROGRAMMING_LANGUAGE]
                                [--wiki-checksum-failed WIKI_CHECKSUM_FAILED]
                                [--repository-checksum-failed REPOSITORY_CHECKSUM_FAILED]
                                [--min-access-level MIN_ACCESS_LEVEL]
                                [--id-after ID_AFTER] [--id-before ID_BEFORE]
                                [--page PAGE] [--per-page PER_PAGE]
                                [--get-all]
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

--archived <archived>

--visibility <visibility>

--order-by <order_by>

--sort <sort>

--search <search>

--simple <simple>

--owned <owned>

--membership <membership>

--starred <starred>

--statistics <statistics>

--with-issues-enabled <with_issues_enabled>

--with-merge-requests-enabled <with_merge_requests_enabled>

--with-custom-attributes <with_custom_attributes>

--with-programming-language <with_programming_language>

--wiki-checksum-failed <wiki_checksum_failed>

```
--repository-checksum-failed <repository_checksum_failed>
--min-access-level <min_access_level>
--id-after <id_after>
--id-before <id_before>
--page <page>
--per-page <per_page>
--get-all
```

Return all items from the server, without pagination.

gitlab user-status

```
usage: gitlab user-status [-h] {get} ...
```

-h, --help

show this help message and exit

gitlab user-status get

```
usage: gitlab user-status get [-h] [--sudo SUDO] --user-id USER_ID
```

-h, --help

show this help message and exit

--sudo <sudo>

--user-id <user_id>

gitlab variable

```
usage: gitlab variable [-h] {list,get,create,update,delete} ...
```

-h, --help

show this help message and exit

gitlab variable create

```
usage: gitlab variable create [-h] [--sudo SUDO] --key KEY --value VALUE
                               [--protected PROTECTED]
                               [--variable-type VARIABLE_TYPE]
                               [--masked MASKED]
```

-h, --help

show this help message and exit

```
--sudo <sudo>
--key <key>
--value <value>
--protected <protected>
--variable-type <variable_type>
--masked <masked>
```

gitlab variable delete

```
usage: gitlab variable delete [-h] [--sudo SUDO] --key KEY
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--key <key>
```

gitlab variable get

```
usage: gitlab variable get [-h] [--sudo SUDO] --key KEY
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--key <key>
```

gitlab variable list

```
usage: gitlab variable list [-h] [--sudo SUDO] [--page PAGE]
                            [--per-page PER_PAGE] [--get-all]
```

```
-h, --help
    show this help message and exit
--sudo <sudo>
--page <page>
--per-page <per_page>
--get-all
    Return all items from the server, without pagination.
```

gitlab variable update

```
usage: gitlab variable update [-h] [--sudo SUDO] --key KEY --value VALUE
                               [--protected PROTECTED]
                               [--variable-type VARIABLE_TYPE]
                               [--masked MASKED]
```

-h, --help

show this help message and exit

--sudo <sudo>

--key <key>

--value <value>

--protected <protected>

--variable-type <variable_type>

--masked <masked>

7.8 Lower-level APIs

python-gitlab's API levels provide different degrees of convenience, control and stability.

7.8.1 Main interface - Gitlab, managers and objects

As shown in previous sections and examples, the high-level API interface wraps GitLab's API endpoints and makes them available from the `Gitlab` instance via managers that create objects you can manipulate.

This is what most users will want to use, as it covers most of GitLab's API endpoints, and allows you to write idiomatic Python code when interacting with the API.

7.8.2 Lower-level API - HTTP methods

Danger: At this point, python-gitlab will no longer take care of URL-encoding and other transformations needed to correctly pass API parameter types. You have to construct these correctly yourself.

However, you still benefit from many of the client's *Features* such as authentication, requests and retry handling.

Important: If you've found yourself at this section because of an endpoint not yet implemented in the library - please consider opening a pull request implementing the resource or at least filing an issue so we can track progress.

High-quality pull requests for standard endpoints that pass CI and include unit tests and documentation are easy to review, and can land quickly with monthly releases. If you ask, we can also trigger a new release, so you and everyone benefits from the contribution right away!

Managers and objects call specific HTTP methods to fetch or send data to the server. These methods can be invoked directly to access endpoints not currently implemented by the client. This essentially gives you some level of usability for any endpoint the moment it is available on your GitLab instance.

These methods can be accessed directly via the `Gitlab` instance (e.g. `gl.http_get()`), or via an object's manager (e.g. `project.manager.gitlab.http_get()`), if the `Gitlab` instance is not available in the current context.

For example, if you'd like to access GitLab's [undocumented latest pipeline endpoint](#), you can do so by calling `http_get()` with the path to the endpoint:

```
>>> gl = gitlab.Gitlab(private_token=private_token)
>>>
>>> pipeline = gl.http_get("/projects/gitlab-org%2Fgitlab/pipelines/latest")
>>> pipeline["id"]
449070256
```

The available methods are:

- `http_get()`
- `http_post()`
- `http_put()`
- `http_patch()`
- `http_delete()`
- `http_list()` (a wrapper around `http_get` handling pagination, including with lazy generators)
- `http_head()` (only returns the header dictionary)

7.8.3 Lower-lower-level API - HTTP requests

Important: This is mostly intended for internal use in `python-gitlab` and may have a less stable interface than higher-level APIs. To lessen the chances of a change to the interface impacting your code, we recommend using keyword arguments when calling the interfaces.

At the lowest level, HTTP methods call `http_request()`, which performs the actual request and takes care of details such as timeouts, retries, and handling rate-limits.

This method can be invoked directly to or customize this behavior for a single request, or to call custom HTTP methods not currently implemented in the library - while still making use of all of the client's options and authentication methods.

For example, if for whatever reason you want to fetch allowed methods for an endpoint at runtime:

```
>>> gl = gitlab.Gitlab(private_token=private_token)
>>>
>>> response = gl.http_request(verb="OPTIONS", path="/projects")
>>> response.headers["Allow"]
'OPTIONS, GET, POST, HEAD'
```

Or get the total number of a user's events with a customized HEAD request:

```
>>> response = gl.http_request(
    verb="HEAD",
    path="/events",
```

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(continued from previous page)

```
query_params={"sudo": "some-user"},  
            timeout=10  
        )  
    >>> response.headers["X-Total"]  
'123'
```

7.9 CHANGELOG

7.9.1 v4.4.0 (2024-01-15)

Chore

- chore(deps): update all non-major dependencies ([550f935](#))
- chore(deps): update pre-commit hook pycqa/flake8 to v7 ([9a199b6](#))
- chore(deps): update dependency jinja2 to v3.1.3 [security] ([880913b](#))
- chore(deps): update dependency flake8 to v7 ([20243c5](#))
- chore(deps): update all non-major dependencies ([cbc13a6](#))
- chore(ci): align upload and download action versions ([dcca59d](#))
- chore(deps): update actions/upload-artifact action to v4 ([7114af3](#))
- chore(ci): add Python 3.13 development CI job

Add a job to test the development versions of Python 3.13. ([ff0c11b](#))

- chore(deps): update all non-major dependencies ([369a595](#))

Feature

- feat(api): add reviewer_details manager for merge_request to get reviewers of merge request

Those changes implements ‘GET /projects/:id/merge_requests/:merge_request_iid/reviewers’ gitlab API call. Naming for call is not reviewers because reviewers attribute already present in merge request response ([adbd90c](#))

- feat(api): support access token rotate API ([b13971d](#))
- feat(api): support single resource access token get API ([dae9e52](#))

Fix

- fix(cli): support binary files with @ notation

Support binary files being used in the CLI with arguments using the @ notation. For example --avatar @/path/to/avatar.png

Also explicitly catch the common OSError exception, which is the parent exception for things like: FileNotFoundError, PermissionError and more exceptions.

Remove the bare exception handling. We would rather have the full traceback of any exceptions that we don’t know about and add them later if needed.

Closes: #2752 ([57749d4](#))

7.9.2 v4.3.0 (2023-12-28)

Chore

- chore(deps): update all non-major dependencies (d7bdb02)
- chore(deps): update actions/stale action to v9 (c01988b)
- chore(deps): update all non-major dependencies (9e067e5)
- chore(deps): update actions/setup-python action to v5 (fad1441)
- chore(deps): update all non-major dependencies (bb2af7b)
- chore(deps): update all non-major dependencies (5ef1b4a)
- chore(deps): update dependency types-setuptools to v69 (de11192)

Documentation

- docs: fix rst link typo in CONTRIBUTING.rst (2b6da6e)

Feature

- feat(api): add support for the Draft notes API (#2728)
- feat(api): add support for the Draft notes API
- fix(client): handle empty 204 responses in PUT requests (ebf9d82)

Fix

- fix(cli): add ability to disable SSL verification

Add a --no-ssl-verify option to disable SSL verification

Closes: #2714 (3fe9fa6)

7.9.3 v4.2.0 (2023-11-28)

Chore

- chore(deps): update all non-major dependencies (8aeb853)
- chore(deps): update dessant/lock-threads action to v5 (f4ce867)
- chore(deps): update all non-major dependencies (9fe2335)
- chore(deps): update all non-major dependencies (91e66e9)
- chore(deps): update all non-major dependencies (d0546e0)

Feature

- feat: add pipeline status as Enum

<https://docs.gitlab.com/ee/api/pipelines.html> (4954bbc)

- feat(api): add support for wiki attachments (#2722)

Added UploadMixin in mixin module
Added UploadMixin dependency for Project, ProjectWiki, GroupWiki
Added api tests for wiki upload
Added unit test for mixin
Added docs sections to wikis.rst ([7b864b8](#))

7.9.4 v4.1.1 (2023-11-03)

Chore

- chore(ci): add release id to workflow step (9270e10)
- chore(deps): update all non-major dependencies (32954fb)

Documentation

- docs(users): add missing comma in v4 API create runner examples

The examples which show usage of new runner registration api endpoint are missing commas. This change adds the missing commas. ([b1b2edf](#))

Fix

- fix(build): include py.typed in dists ([b928639](#))

7.9.5 v4.1.0 (2023-10-28)

Chore

- chore(deps): update all non-major dependencies ([bf68485](#))
- chore(CHANGELOG): re-add v4.0.0 changes using old format ([258a751](#))
- chore(CHANGELOG): revert python-semantic-release format change ([b5517e0](#))
- chore: add source label to container image ([7b19278](#))
- chore(rtd): revert to python 3.11 (#2694) ([1113742](#))

Ci

- ci: remove unneeded GitLab auth ([fd7bbfc](#))

Feature

- feat: add Merge Request merge_status and detailed_merge_status values as constants ([e18a424](#))

Fix

- fix: remove deprecated MergeStatus ([c6c012b](#))

7.9.6 v4.0.0 (2023-10-17)

Breaking

- docs(advanced): document new netrc behavior

BREAKING CHANGE: python-gitlab now explicitly passes auth to requests, meaning it will only read netrc credentials if no token is provided, fixing a bug where netrc credentials took precedence over OAuth tokens. This also affects the CLI, where all environment variables now take precedence over netrc files. ([45b8930](#))

- refactor(build): build project using PEP 621

BREAKING CHANGE: python-gitlab now stores metadata in pyproject.toml as per PEP 621, with setup.py removed. pip version v21.1 or higher is required if you want to perform an editable install. ([71fca8c](#))

- refactor(const): remove deprecated global constant import

BREAKING CHANGE: Constants defined in `gitlab.const` can no longer be imported globally from `gitlab`. Import them from `gitlab.const` instead. ([e4a1f6e](#))

- refactor(list): `as_list` support is removed.

In `list()` calls support for the `as_list` argument has been removed. `as_list` was previously deprecated and now the use of `iterator` will be required if wanting to have same functionality as using `as_list`

BREAKING CHANGE: Support for the deprecated `as_list` argument in `list()` calls has been removed. Use `iterator` instead. ([9b6d89e](#))

- refactor(lint): remove deprecated `lint()` in favor of `ci_lint.create()`

BREAKING CHANGE: The deprecated `lint()` method is no longer available. Use `ci_lint.create()` instead. ([@b17a2d](#))

- refactor(artifacts): remove deprecated `artifact()` in favor of `artifacts.raw()`

BREAKING CHANGE: The deprecated `project.artifact()` method is no longer available. Use `project.artifacts.raw()` instead. ([90134c9](#))

- refactor(artifacts): remove deprecated `artifacts()` in favor of `artifacts.download()`

BREAKING CHANGE: The deprecated `project.artifacts()` method is no longer available. Use `project.artifacts.download()` instead. ([42639f3](#))

- refactor(groups): remove deprecated LDAP group link add/delete methods

BREAKING CHANGE: The deprecated `group.add_ldap_group_link()` and `group.delete_ldap_group_link()` methods are no longer available. Use `group.ldap_group_links.create()` and `group.ldap_group_links.delete()` instead. ([5c8b7c1](#))

- refactor(projects): remove deprecated `project.transfer_project()` in favor of `project.transfer()`

BREAKING CHANGE: The deprecated `project.transfer_project()` method is no longer available. Use `project.transfer()` instead. ([27ed490](#))

- fix(cli): remove deprecated --all option in favor of --get-all

BREAKING CHANGE: The --all option is no longer available in the CLI. Use --get-all instead. ([e9d48cf](#))

- feat: remove support for Python 3.7, require 3.8 or higher

Python 3.8 is End-of-Life (EOL) as of 2023-06-27 as stated in <https://devguide.python.org/versions/> and <https://peps.python.org/pep-0537/>

By dropping support for Python 3.7 and requiring Python 3.8 or higher it allows python-gitlab to take advantage of new features in Python 3.8, which are documented at: <https://docs.python.org/3/whatsnew/3.8.html>

BREAKING CHANGE: As of python-gitlab 4.0.0, Python 3.7 is no longer supported. Python 3.8 or higher is required. ([@58d5a5](#))

Chore

- chore(ci): follow upstream config for release build_command ([3e20a76](#))
- chore(ci): update release build for python-semantic-release v8 (#2692) ([bf050d1](#))
- chore(deps): update pre-commit hook pycqa/pylint to v3 ([0f4a346](#))
- chore(deps): update all non-major dependencies ([1348a04](#))
- chore: add package pipelines API link ([2a2404f](#))
- chore(ci): fix pre-commit deps and python version ([1e7f257](#))
- chore(ci): remove Python 3.13 dev job ([e8c50f2](#))
- chore(helpers): fix previously undetected flake8 issue ([bf8bd73](#))
- chore: fix test names ([f1654b8](#))
- chore: make linters happy ([3b83d5d](#))
- chore: change _update_uses to _update_method and use an Enum

Change the name of the _update_uses attribute to _update_method and store an Enum in the attribute to indicate which type of HTTP method to use. At the moment it supports POST and PUT. But can in the future support PATCH. ([7073a2d](#))

- chore(deps): update all non-major dependencies ([ff45124](#))
- chore(deps): update dependency pylint to v3 ([491350c](#))
- chore(deps): update pre-commit hook maxbrunet/pre-commit-renovate to v37 ([b4951cd](#))
- chore(deps): update all non-major dependencies ([0d49164](#))
- chore(deps): update dependency commitizen to v3.10.0 ([becd8e2](#))
- chore(deps): update pre-commit hook commitizen-tools/commitizen to v3.10.0 ([626c2f8](#))
- chore(deps): update all non-major dependencies ([6093dbc](#))
- chore(deps): update all non-major dependencies ([bb728b1](#))
- chore(deps): update all non-major dependencies to v23.9.1 ([a16b732](#))
- chore(deps): update actions/checkout action to v4 ([af13914](#))
- chore(deps): update all non-major dependencies ([9083787](#))
- chore(deps): update dependency build to v1 ([2e856f2](#))
- chore(deps): update all non-major dependencies ([b6a3db1](#))

- chore(rtd): use readthedocs v2 syntax ([6ce2149](#))
- chore(rtd): fix docs build on readthedocs.io (#2654) ([3d7139b](#))
- chore(ci): adapt release workflow and config for v8 ([827fefef](#))
- chore(deps): update relekang/python-semantic-release action to v8 ([c57c85d](#))
- chore(deps): update all non-major dependencies ([16f2d34](#))
- chore(deps): update all non-major dependencies ([5b33ade](#))
- chore(deps): update pre-commit hook maxbrunet/pre-commit-renovate to v36 ([db58cca](#))
- chore(deps): update dependency ubuntu to v22 ([8865552](#))
- chore(deps): update all non-major dependencies ([3732841](#))
- chore(deps): update dependency pytest-docker to v2 ([b87bb0d](#))
- chore: switch to docker-compose v2

Closes: #2625 ([713b5ca](#))

- chore: update PyYAML to 6.0.1

Fixes issue with CI having error: `AttributeError: cython_sources`

Closes: #2624 ([3b8939d](#))

- chore(deps): update all non-major dependencies ([511f45c](#))
- chore(deps): update all non-major dependencies ([d4a7410](#))
- chore(deps): update all non-major dependencies ([12846cf](#))
- chore(deps): update all non-major dependencies ([33d2aa2](#))
- chore(deps): update dependency types-setuptools to v68 ([bdd4eb6](#))
- chore(deps): update actions/upload-artifact action to v3 ([b78d6bf](#))
- chore(deps): update dependency setuptools to v68 ([0f06082](#))
- chore(deps): bring myst-parser up to date with sphinx 7 ([da03e9c](#))
- chore(deps): bring furo up to date with sphinx ([a15c927](#))
- chore(deps): update dependency sphinx to v7 ([2918dfd](#))
- chore(deps): update actions/checkout action to v3 ([e2af1e8](#))
- chore(deps): update actions/setup-python action to v4 ([e0d6783](#))
- chore(deps): update all non-major dependencies ([5ff56d8](#))
- chore(deps): pin pytest-console-scripts for 3.7 ([6d06630](#))
- chore(deps): update all non-major dependencies ([7586a5c](#))

Documentation

- docs: correct error with back-ticks (#2653)

New linting package update detected the issue. ([@b98dd3](#))

- docs(access_token): adopt token docs to 16.1

expires_at is now required Upstream MR: https://gitlab.com/gitlab-org/gitlab/-/merge_requests/124964 ([fe7a971](#))

- docs(files): fix minor typo in variable declaration (118ce42)

Feature

- feat(client): mask tokens by default when logging ([1611d78](#))
- feat(api): add ProjectPackagePipeline

Add ProjectPackagePipeline, which is scheduled to be included in GitLab 16.0 ([5b4add](#))

- feat: officially support Python 3.12 ([2a69c0e](#))
- feat(packages): Allow uploading bytes and files

This commit adds a keyword argument to GenericPackageManager.upload() to allow uploading bytes and file-like objects to the generic package registry. That necessitates changing file path to be a keyword argument as well, which then cascades into a whole slew of checks to not allow passing both and to not allow uploading file-like objects as JSON data.

Closes <https://github.com/python-gitlab/python-gitlab/issues/1815> ([61e0fae](#))

- feat: Use requests AuthBase classes ([5f46cf0](#))
- feat(api): add support for job token scope settings ([59d6a88](#))
- feat(api): support project remote mirror deletion ([d900910](#))
- feat(api): add optional GET attrs for /projects/:id/ci/lint ([40a102d](#))
- feat(api): add support for new runner creation API (#2635)

Co-authored-by: Nejc Habjan <hab.nejc@gmail.com> ([4abcd17](#))

- feat(releases): Add support for direct_asset_path

This commit adds support for the “new” alias for `filepath: direct_asset_path` (added in 15.10) in release links API. ([d054917](#))

- feat: Added iteration to issue and group filters ([8d2d297](#))

Fix

- fix(cli): add _from_parent_attrs to user-project manager (#2558) ([016d90c](#))
- fix(cli): fix action display in –help when there are few actions

fixes #2656 ([b22d662](#))

- fix(client): support empty 204 responses in http_patch ([e15349c](#))
- fix(snippets): allow passing list of files ([31c3c5e](#))

Test

- test: add tests for token masking ([163bfcf](#))
- test(cli): add test for user-project list ([a788cff](#))
- test: correct calls to `script_runner.run()`

Warnings were being raised. Resolve those warnings. ([cd04315](#))

- test: fix failing tests that use 204 (No Content) plus content

`urllib3>=2` now checks for expected content length. Also codes 204 and 304 are set to expect a content length of 0 [1]

So in the unit tests stop setting content to return in these situations.

[1]<https://github.com/urllib3/urllib3/blob/88a707290b655394aade060a8b7eaee83152dc8b/src/urllib3/response.py#L691-L693> ([3074f52](#))

Unknown

- chore(deps): update dependency requests to v2.31.0 [security]

Also update dependency `responses==0.23.3` as it provides support for `urllib3>=2`

Closes: #2626 ([988a6e7](#))

7.9.7 v3.15.0 (2023-06-09)

Chore

- chore(deps): update pre-commit hook maxbrunet/pre-commit-renovate to v35 ([8202e3f](#))
- chore: update sphinx from 5.3.0 to 6.2.1 ([c44a290](#))
- chore: update copyright year to include 2023 ([511c6e5](#))
- chore(deps): update all non-major dependencies ([e3de6ba](#))
- chore(deps): update pre-commit hook commitizen-tools/commitizen to v3 ([1591e33](#))
- chore(deps): update dependency types-setuptools to v67 ([c562424](#))
- chore(deps): update dependency requests-toolbelt to v1 ([86eba06](#))
- chore(deps): update dependency myst-parser to v1 ([9c39848](#))
- chore(deps): update dependency commitizen to v3 ([784d59e](#))
- chore(ci): use OIDC trusted publishing for pypi.org (#2559)
- chore(ci): use OIDC trusted publishing for pypi.org
- chore(ci): explicitly install setuptools in tests ([7be09e5](#))

Documentation

- docs: remove exclusive EE about issue links ([e0f6f18](#))

Feature

- feat: add support for `select='package_file'` in package upload

Add ability to use `select='package_file'` when uploading a generic package as described in: https://docs.gitlab.com/ee/user/packages/generic_packages/index.html

Closes: #2557 ([3a49f09](#))

- feat(api): add support for events scope parameter ([348f56e](#))
- feat: usernames support for MR approvals

This can be used instead of ‘user_ids’

See: https://docs.gitlab.com/ee/api/merge_request_approvals.html#create-project-level-rule ([a2b8c8c](#))

7.9.8 v3.14.0 (2023-04-11)

Chore

- chore(ci): wait for all coverage reports in CI status ([511764d](#))
- chore(setup): depend on typing-extensions for 3.7 until EOL ([3abc557](#))
- chore: add Contributor Covenant 2.1 as Code of Conduct

See https://www.contributor-covenant.org/version/2/1/code_of_conduct/ ([fe334c9](#))

- chore(deps): update all non-major dependencies ([8b692e8](#))
- chore(deps): update dependency furo to v2023 ([7a1545d](#))
- chore(deps): update actions/stale action to v8 ([7ac4b86](#))
- chore(pre-commit): Bumping versions ([e973729](#))
- chore(.github): actually make PR template the default ([7a8a862](#))
- chore: use a dataclass to return values from `prepare_send_data`

I found the tuple of three values confusing. So instead use a dataclass to return the three values. It is still confusing but a little bit less so.

Also add some unit tests ([f2b5e4f](#))

- chore(contributing): refresh development docs ([d387d91](#))
- chore(github): add default pull request template ([bf46c67](#))
- chore(deps): update all non-major dependencies (#2493)
- chore(deps): update all non-major dependencies
- chore/fixtures): downgrade GitLab for now
- chore(deps): ungroup typing deps, group gitlab instead
- chore(deps): downgrade argcomplete for now

Co-authored-by: renovate[bot] <29139614+renovate[bot]@users.noreply.github.com> Co-authored-by: Nejc Habjan <nejc.habjan@siemens.com> ([07d03dc](#))

- chore(deps): update dependency pre-commit to v3 (#2508)

Co-authored-by: renovate[bot] <29139614+renovate[bot]@users.noreply.github.com> ([7d779c8](#))

- chore(deps): update dependency coverage to v7 (#2501)

Co-authored-by: renovate[bot] <29139614+renovate[bot]@users.noreply.github.com> ([aee73d0](#))

- chore(deps): update dependency flake8 to v6 (#2502)

Co-authored-by: renovate[bot] <29139614+renovate[bot]@users.noreply.github.com> ([3d4596e](#))

- chore(renovate): switch to gitlab-ee ([8da48ee](#))
- chore(renovate): bring back custom requirements pattern ([ae0b21c](#))
- chore(deps): update mypy (1.0.0) and responses (0.22.0)

Update the `requirements-*` files.

In order to update mypy==1.0.0 we need to also update responses==0.22.0

Fix one issue found by mypy

Leaving updates for `precommit` to be done in a separate commit by someone. ([9c24657](#))

- chore(renovate): do not ignore tests dir ([5b8744e](#))
- chore(deps): update all non-major dependencies ([2f06999](#))
- chore(deps): update pre-commit hook psf/black to v23 ([217a787](#))
- chore(deps): update black (23.1.0) and commitizen (2.40.0) (#2479)

Update the dependency versions: black: 23.1.0 commitizen: 2.40.0

They needed to be updated together as just updating `black` caused a dependency conflict.

Updated files by running `black` and committing the changes. ([44786ef](#))

- chore: add SECURITY.md ([572ca3b](#))
- chore: remove `pre-commit` as a default `tox` environment (#2470)

For users who use `tox` having `pre-commit` as part of the default environment list is redundant as it will run the same tests again that are being run in other environments. For example: `black`, `flake8`, `pylint`, and more. ([fde2495](#))

- chore: add Python 3.12 testing

Add a unit test for Python 3.12. This will use the latest version of Python 3.12 that is available from <https://github.com/actions/python-versions/>

At this time it is 3.12.0-alpha.4 but will move forward over time until the final 3.12 release and updates. So 3.12.0, 3.12.1, ... will be matched. ([0867564](#))

Documentation

- docs(objects): fix typo in pipeline schedules ([3057f45](#))
- docs(advanced): clarify netrc, proxy behavior with requests ([1da7c53](#))
- docs: fix update badge behaviour

docs: fix update badge behaviour

Earlier: badge.image_link = new_link

Now: badge.image_url = new_image_url badge.link_url = new_link_url ([3d7ca1c](#))

- docs(advanced): fix typo in Gitlab examples ([1992790](#))

Feature

- feat(projects): allow importing additional items from GitHub ([ce84f2e](#))
- feat(objects): support fetching PATs via id or self endpoint ([19b38bd](#))
- feat: add resource_weight_event for ProjectIssue ([6e5ef55](#))
- feat(backends): use PEP544 protocols for structural subtyping (#2442)

The purpose of this change is to track API changes described in <https://github.com/python-gitlab/python-gitlab/blob/main/docs/api-levels.rst>, for example, for package versioning and breaking change announcements in case of protocol changes.

This is MVP implementation to be used by #2435. ([4afeaff](#))

- feat(client): add http_patch method (#2471)

In order to support some new API calls we need to support the HTTP PATCH method.

Closes: #2469 ([f711d9e](#))

- feat(cli): add setting of allow_force_push for protected branch

For the CLI: add allow_force_push as an optional argument for creating a protected branch.

API reference: https://docs.gitlab.com/ee/api/protected_branches.html#protect-repository-branches

Closes: #2466 ([929e07d](#))

Fix

- fix(cli): warn user when no fields are displayed ([8bf53c8](#))
- fix(client): properly parse content-type when charset is present ([76063c3](#))
- fix: support int for parent_id in import_group

This will also fix other use cases where an integer is passed in to MultipartEncoder.

Added unit tests to show it works.

Closes: #2506 ([90f96ac](#))

- fix(cli): add ability to escape at-prefixed parameter (#2513)
- fix(cli): Add ability to escape at-prefixed parameter (#2511)

Co-authored-by: Nejc Habjan <hab.nejc@gmail.com> (4f7c784)

- fix(cli): display items when iterator is returned (33a04e7)
- fix: typo fixed in docs (ee5f444)

Refactor

- refactor(client): let mypy know http_password is set (2dd177b)

Test

- test(unit): increase V4 CLI coverage (5748d37)
- test(unit): split the last remaining unittest-based classes into modules” (14e0f65)
- test(unit): remove redundant package (4a9e3ee)
- test(unit): consistently use inline fixtures (1bc56d1)
- test(meta): move meta suite into unit tests

They’re always run with it anyway, so it makes no difference. (847004b)

- test(functional): clarify MR fixture factory name (d8fd1a8)

Unknown

- Merge pull request #2465 from valentingregoire/typos
- docs: fix typo in issue docs (43f5ac5)
- Merge branch ‘main’ into typos (3cf390)

7.9.9 v3.13.0 (2023-01-30)

Chore

- chore: make backends private (1e629af)
- chore(deps): update all non-major dependencies (ea7010b)
- chore: add a UserWarning if both iterator=True and page=X are used (#2462)

If a caller calls a `list()` method with both `iterator=True` (or `as_list=False`) and `page=X` then emit a `UserWarning` as the options are mutually exclusive. (8e85791)

- chore: remove tox envdir values

tox > 4 no longer will re-use the tox directory :(What this means is that with the previous config if you ran: \$ tox -e mypy; tox -e isort; tox -e mypy It would recreate the tox environment each time :(

By removing the envdir values it will have the tox environments in separate directories and not recreate them.

The have an FAQ entry about this: <https://tox.wiki/en/latest/upgrading.html#re-use-of-environments> (3c7c7fc)

- chore: update attributes for create and update projects (aa44f2a)

- chore(deps): update all non-major dependencies (122988c)
- chore(deps): update all non-major dependencies (49c0233)
- chore(deps): update all non-major dependencies (10c4f31)
- chore(deps): update all non-major dependencies (bbd01e8)
- chore(deps): update actions/stale action to v7 (76eb024)
- chore(ci): complete all unit tests even if one has failed (#2438) (069c6c3)
- chore: add test, docs, and helper for 409 retries (3e1c625)
- chore(deps): update all non-major dependencies (6682808)
- chore(deps): update all non-major dependencies (1816107)
- chore(deps): update pre-commit hook pycqa/flake8 to v6 (82c61e1)
- chore: add docs for schedule pipelines (9a9a6a9)
- chore(tox): ensure test envs have all dependencies (63cf4e4)
- chore(deps): update pre-commit hook maxbrunet/pre-commit-renovate to v34.48.4 (985b971)
- chore(deps): update dessant/lock-threads action to v4 (337b25c)
- chore: Use SPDX license expression in project metadata (acb3a4a)
- chore(deps): update actions/download-artifact action to v3 (64ca597)
- chore(deps): update all non-major dependencies (21e767d)

Documentation

- docs(faq): describe and group common errors (4c9a072)

Feature

- feat(group): add support for group restore API (9322db6)
- feat(client): automatically retry on HTTP 409 Resource lock

Fixes: #2325 (dcfed76a)

- feat(api): add support for bulk imports API (043de2d)
- feat(api): add support for resource groups (5f8b8f5)
- feat(api): support listing pipelines triggered by pipeline schedules (865fa41)
- feat: allow filtering pipelines by source

See: <https://docs.gitlab.com/ee/api/pipelines.html#list-project-pipelines> Added in GitLab 14.3 (b6c0872)

- feat(client): bootstrap the http backends concept (#2391) (91a665f)
- feat: add resource iteration events (see https://docs.gitlab.com/ee/api/resource_iteration_events.html) (ef5feb4)
- feat: allow passing kwargs to Gitlab class when instantiating with `from_config` (#2392) (e88d34e)
- feat: add `keep_base_url` when getting configuration from file (50a0301)

Fix

- fix(client): regression - do not automatically get_next if page=# and iterator=True/as_list=False are used

This fix a regression introduced on commit <https://github.com/python-gitlab/python-gitlab/commit/1339d645ce58a2e1198b898b9549ba5917b1ff12>

If page is used, then get_next should be false.

This was found on the mesa ci project, after upgrading the python-gitlab version, the script that monitors the ci was getting killed by consuming too much memory. ([585e3a8](#))

- fix: change return value to “None” in case getattr returns None to prevent error ([3f86d36](#))
- fix(deps): bump requests-toolbelt to fix deprecation warning ([faf842e](#))
- fix: Use the ProjectIterationManager within the Project object

The Project object was previously using the GroupIterationManager resulting in the incorrect API endpoint being used. Utilize the correct ProjectIterationManager instead.

Resolves #2403 ([44f05dc](#))

- fix(api): Make description optional for releases ([5579750](#))

Refactor

- refactor: add reason property to RequestsResponse (#2439) ([b59b7bd](#))
- refactor: remove unneeded requests.utils import (#2426) ([6fca651](#))
- refactor: Migrate MultipartEncoder to RequestsBackend (#2421) ([43b369f](#))
- refactor: move Response object to backends (#2420) ([7d9ce0d](#))
- refactor: move the request call to the backend (#2413) ([283e7cc](#))
- refactor: Moving RETRYABLE_TRANSIENT_ERROR_CODES to const ([887852d](#))

Test

- test(functional): do not require config file ([43c2dda](#))
- test(unit): expand tests for pipeline schedules ([c7cf0d1](#))

7.9.10 v3.12.0 (2022-11-28)

Chore

- chore: validate httpx package is not installed by default ([0ecf3bb](#))
- chore(deps): update all non-major dependencies ([d8a657b](#))
- chore(deps): update pre-commit hook maxbrunet/pre-commit-renovate to v34.24.0 ([a0553c2](#))
- chore: correct website for pylint

Use <https://github.com/PyCQA/pylint> as the website for pylint. ([fcfd72fe](#))

- chore(deps): update pre-commit hook maxbrunet/pre-commit-renovate to v34.20.0 ([e6f1bd6](#))
- chore(deps): update all non-major dependencies ([b2c6d77](#))

- chore(deps): update pre-commit hook maxbrunet/pre-commit-renovate to v34 ([623e768](#))

Documentation

- docs: Use the term “log file” for getting a job log file

The GitLab docs refer to it as a log file: <https://docs.gitlab.com/ee/api/jobs.html#get-a-log-file>

“trace” is the endpoint name but not a common term people will think of for a “log file” ([9d2b1ad](#))

- docs(groups): describe GitLab.com group creation limitation ([9bd433a](#))
- docs(api): pushrules remove saying None is returned when not found

In `groups.pushrules.get()`, GitLab does not return None when no rules are found. GitLab returns a 404.

Update docs to not say it will return None

Also update docs in `project.pushrules.get()` to be consistent. Not 100% sure if it returns None or returns a 404, but we don’t need to document that.

Closes: #2368 ([c3600b4](#))

Feature

- feat: add support for SAML group links (#2367) ([1020ce9](#))
- feat(groups): add LDAP link manager and deprecate old API endpoints ([3a61f60](#))
- feat(groups): add support for listing ldap_group_links (#2371) ([ad7c8fa](#))
- feat: implement secure files API ([d0a0348](#))
- feat(ci): Re-Run Tests on PR Comment workflow ([034cde3](#))
- feat(api): add support for getting a project’s pull mirror details

Add the ability to get a project’s pull mirror details. This was added in GitLab 15.5 and is a PREMIUM feature.

<https://docs.gitlab.com/ee/api/projects.html#get-a-projects-pull-mirror-details> ([060cf1e](#))

- feat(api): add support for remote project import from AWS S3 (#2357) ([892281e](#))
- feat(api): add support for remote project import (#2348) ([e5dc72d](#))
- feat(api): add application statistics ([6fcf3b6](#))

Fix

- fix(cli): Enable debug before doing auth

Authentication issues are currently hard to debug since `--debug` only has effect after `gl.auth()` has been called.

For example, a 401 error is printed without any details about the actual HTTP request being sent:

```
$ gitlab --debug --server-url https://gitlab.com current-user get  
401: 401 Unauthorized
```

By moving the call to `gl.enable_debug()` the usual debug logs get printed before the final error message.

Signed-off-by: Emanuele Aina <emanuele.aina@collabora.com> ([65abb85](#))

- fix(cli): expose missing mr_default_target_self project attribute

Example::

```
gitlab project update --id 616 --mr-default-target-self 1
```

References:

- https://gitlab.com/gitlab-org/gitlab/-/merge_requests/58093
- https://gitlab.com/gitlab-org/gitlab/-/blob/v13.11.0-ee/doc/user/project/merge_requests/creating_merge_requests.md#new-merge-request-from-a-fork
- [https://gitlab.com/gitlab-org/gitlab/-/blob/v14.7.0-ee/doc/api/projects.md#get-single-project \(12aea32\)](https://gitlab.com/gitlab-org/gitlab/-/blob/v14.7.0-ee/doc/api/projects.md#get-single-project (12aea32))
- fix: use POST method and return dict in `cancel_merge_when_pipeline_succeeds()` (#2350)
 - Call was incorrectly using a PUT method when should have used a POST method.
 - Changed return type to a `dict` as GitLab only returns {‘status’: ‘success’} on success. Since the function didn’t work previously, this should not impact anyone.
 - Updated the test fixture `merge_request` to add ability to create a pipeline.
 - Added functional test for `mr.cancel_merge_when_pipeline_succeeds()`

Fixes: #2349 ([bd82d74](#))

Refactor

- refactor: explicitly use ProjectSecureFile ([0c98b2d](#))

Test

- test(api): fix flaky test `test_cancel_merge_when_pipeline_succeeds`

This is an attempt to fix the flaky test `test_cancel_merge_when_pipeline_succeeds`. Were seeing a: 405 Method Not Allowed error when setting the MR to `merge_when_pipeline_succeeds`.

Closes: #2383 ([6525c17](#))

Unknown

- Merge pull request #2347 from Shreya-7/issue-2264-add-application-statistics

feat(api): add application statistics ([31ec146](#))

- Merge pull request #2351 from python-gitlab/renovate/all-minor-patch

chore(deps): update all non-major dependencies ([2974966](#))

- Merge pull request #2352 from python-gitlab/renovate/maxbrunet-pre-commit-renovate-34.x

chore(deps): update pre-commit hook maxbrunet/pre-commit-renovate to v34 ([c3d9820](#))

7.9.11 v3.11.0 (2022-10-28)

Chore

- chore: add responses to pre-commit deps ([4b8ddc7](#))
- chore: add basic type checks to functional/api tests ([5b642a5](#))
- chore: add basic typing to functional tests ([ee143c9](#))
- chore: narrow type hints for license API ([50731c1](#))
- chore: add basic type checks to meta tests ([545d6d6](#))
- chore: add basic typing to smoke tests ([64e8c31](#))
- chore: add basic typing to test root ([0b2f6bc](#))
- chore(deps): update pre-commit hook maxbrunet/pre-commit-renovate to v33 ([932bbde](#))
- chore(deps): update all non-major dependencies ([dde3642](#))
- chore: add `not-callable` to pylint ignore list

The `not-callable` error started showing up. Ignore this error as it is invalid. Also `mypy` tests for these issues.

Closes: #2334 ([f0c02a5](#))

- chore: revert compose upgrade

This reverts commit f825d70e25feae8cd9da84e768ec6075edbc2200. ([dd04e8e](#))

- chore(deps): update all non-major dependencies ([2966234](#))
- chore: use kwargs for `http_request` docs ([124abab](#))
- chore(deps): pin GitHub Actions ([8dbaa5c](#))
- chore(deps): group non-major upgrades to reduce noise ([37d14bd](#))
- chore(deps): pin and clean up test dependencies ([60b9197](#))
- chore(deps): pin dependencies ([953f38d](#))
- chore: topic functional tests ([d542eba](#))
- chore: renovate and precommit cleanup ([153d373](#))
- chore(deps): update black to v22.10.0 ([531ee05](#))
- chore(deps): update dependency types-requests to v2.28.11.2 ([d47c0f0](#))
- chore: fix flaky test ([fdd4114](#))
- chore: update the issue templates
- Have an option to go to the discussions
- Have an option to go to the Gitter chat
- Move the bug/issue template into the `.github/ISSUE_TEMPLATE/` directory ([c15bd33](#))
- chore: simplify `wait_for_sidekiq` usage

Simplify usage of `wait_for_sidekiq` by putting the assert if it timed out inside the function rather than after calling it. ([196538b](#))

- chore(deps): update dependency pylint to v2.15.3 ([6627a60](#))
- chore(deps): update dependency `mypy` to v0.981 ([da48849](#))

- chore(deps): update dependency commitizen to v2.35.0 ([4ce9559](#))
- chore(deps): update typing dependencies ([81285fa](#))

Documentation

- docs(advanced): add hint on type narrowing ([a404152](#))
- docs: add minimal docs about the `enable_debug()` method

Add some minimal documentation about the `enable_debug()` method. ([b4e9ab7](#))

- docs(commits): fix commit create example for binary content ([bcc1eb4](#))
- docs(readme): add a basic feature list ([b4d53f1](#))
- docs(api): describe use of lower-level methods ([b7a6874](#))
- docs(api): describe the `list()` and `all()` runners' functions ([b6cc3f2](#))
- docs(api): Update `merge_requests.rst`: `mr_id` to `mr_iid`

Type: Author probably meant `mr_iid` (i.e. project-specific MR ID) and **not** `mr_id` (i.e. server-wide MR ID)

Closes: <https://github.com/python-gitlab/python-gitlab/issues/2295>

Signed-off-by: Stavros Ntentos <133706+stdedos@users.noreply.github.com> ([b32234d](#))

Feature

- feat(build): officially support Python 3.11 ([74f66c7](#))
- feat(api): add support for topics merge API ([9a6d197](#))

Fix

- fix: remove `project.approvals.set_approvals()` method

The `project.approvals.set_approvals()` method used the `/projects/:id/approvers` end point. That end point was removed from GitLab in the 13.11 release, on 2-Apr-2021 in commit `27dc2f2fe81249bbdc25f7bd8fe799752aac05e6` via merge commit `e482597a8cf1bae8e27abd6774b684fb90491835`. It was deprecated on 19-Aug-2019.

See merge request: https://gitlab.com/gitlab-org/gitlab/-/merge_requests/57473 ([91f08f0](#))

- fix: use epic id instead of iid for epic notes ([97cae38](#))
- fix(cli): handle list response for json/yaml output

Handle the case with the CLI where a list response is returned from GitLab and json/yaml output is requested.

Add a functional CLI test to validate it works.

Closes: #2287 ([9b88132](#))

- fix: intermittent failure in `test_merge_request_reset_approvals`

Have been seeing intermittent failures in the test: `tests/functional/api/test_merge_requests.py::test_merge_request_reset_approvals`

Also saw a failure in: `tests/functional/cli/test_cli_v4.py::test_accept_request_merge[subprocess]`

Add a call to `wait_for_sidekiq()` to hopefully resolve the issues. ([3dde36e](#))

Refactor

- refactor: pre-commit trigger from tox (6e59c12)
- refactor: migrate legacy EE tests to pytest ([88c2505](#))
- refactor: pytest-docker fixtures ([3e4781a](#))
- refactor(deps): drop compose v1 dependency in favor of v2 ([f825d70](#))

Test

- test: fix `test_project_push_rules` test

Make the `test_project_push_rules` test work. ([8779cf6](#))

- test: enable skipping tests per GitLab plan ([01d5f68](#))
- test: use false instead of /usr/bin/false

On Debian systems false is located at /bin/false (coreutils package). This fixes unit test failure on Debian system:

FileNotFoundError: [Errno 2] No such file or directory: '/usr/bin/false' /usr/lib/python3.10/subprocess.py:1845:
FileNotFoundError ([51964b3](#))

Unknown

- Merge pull request #2345 from python-gitlab/jlvillal/enable_debug

docs: add minimal docs about the `enable_debug()` method ([8f74a33](#))

- Merge pull request #2343 from python-gitlab/feat/python-3-11

feat(build): officially support Python 3.11 ([a3b4824](#))

- Merge pull request #2341 from python-gitlab/renovate/maxbrunet-pre-commit-renovate-33.x

chore(deps): update pre-commit hook maxbrunet/pre-commit-renovate to v33 ([31a39e1](#))

- Merge pull request #2320 from lmilbaum/refactoring

refactor: pre-commit triggered from tox ([eec6c02](#))

- Merge pull request #2333 from python-gitlab/jlvillal/remove_approvers_endpoint

fix: remove `project.approvals.set_approvals()` method ([eb54adf](#))

- Merge pull request #2332 from python-gitlab/jlvillal/fix_test

test: fix `test_project_push_rules` test ([c676b43](#))

- Merge pull request #2322 from AndreySV/fix-test-with-false

test: use false instead of /usr/bin/false ([4eca9b9](#))

- Merge pull request #2318 from python-gitlab/renovate/all-minor-patch

chore(deps): update all non-major dependencies ([9410acb](#))

7.9.12 v3.10.0 (2022-09-28)

Chore

- chore: bump GitLab docker image to 15.4.0-ee.0
- Use `settings.delayed_group_deletion=False` as that is the recommended method to turn off the delayed group deletion now.
- Change test to look for `default` as `pages` is not mentioned in the docs[1]

[1] https://docs.gitlab.com/ee/api/sidekiq_metrics.html#get-the-current-queue-metrics (`b87a2bc`)

- chore(deps): update black to v22.8.0 (`86b0e40`)
- chore(deps): update dependency types-requests to v2.28.10 (`5dde7d4`)
- chore(deps): update dependency pytest to v7.1.3 (`ec7f26c`)
- chore(deps): update dependency commitizen to v2.32.5 (`e180f14`)
- chore(deps): update pre-commit hook commitizen-tools/commitizen to v2.32.2 (`31ba64f`)
- chore(deps): update dependency commitizen to v2.32.2 (`31aea28`)

Feature

- feat: Add reset_approvals api

Added the newly added `reset_approvals` merge request api.

Signed-off-by: Lucas Zampieri <lzampier@redhat.com> (`88693ff`)

Fix

- fix(cli): add missing attributes for creating MRs (`1714d0a`)
- fix(cli): add missing attribute for MR changes (`20c46a0`)

Unknown

- Merge pull request #2280 from python-gitlab/jlvillal/docker_image

chore: bump GitLab docker image to 15.4.0-ee.0 (`fceeebc`)

- Merge pull request #2261 from python-gitlab/renovate/commitizen-2.x

chore(deps): update dependency commitizen to v2.32.2 (`336ee21`)

- Merge pull request #2262 from python-gitlab/renovate/commitizen-tools-commitizen-2.x

chore(deps): update pre-commit hook commitizen-tools/commitizen to v2.32.2 (`89bf581`)

- Merge pull request #2254 from python-gitlab/jlvillal/deploy_approve

feat: add support for deployment approval endpoint (`56fbe02`)

7.9.13 v3.9.0 (2022-08-28)

Chore

- chore: Only check for our UserWarning

The GitHub CI is showing a ResourceWarning, causing our test to fail.

Update test to only look for our UserWarning which should not appear.

What was seen when debugging the GitHub CI: {message: ResourceWarning(“unclosed <socket.socket fd=12, family=AddressFamily.AF_INET, type=SocketKind.SOCK_STREAM, proto=6, laddr=('127.0.0.1', 50862), raddr=('127.0.0.1', 8080)>”), category: ‘ResourceWarning’, filename: ‘/home/runner/work/python-gitlab/python-gitlab/.tox/api_func_v4/lib/python3.10/site-packages/urllib3/poolmanager.py’, lineno: 271, line: None } ([bd4dfb4](#))

- chore: fix issue if only run test_gitlab.py func test

Make it so can run just the test_gitlab.py functional test.

For example: \$ tox -e api_func_v4 –k test_gitlab.py ([98f1956](#))

- chore(ci): make pytest annotations work ([f67514e](#))
- chore(deps): update pre-commit hook commitizen-tools/commitizen to v2.32.1 ([cdd6efe](#))
- chore(deps): update dependency commitizen to v2.32.1 ([9787c5c](#))
- chore(deps): update dependency types-requests to v2.28.9 ([be932f6](#))
- chore(deps): update dependency types-setuptools to v64 ([4c97f26](#))
- chore(deps): update pre-commit hook pycqa/flake8 to v5 ([835d884](#))
- chore(deps): update dependency types-requests to v2.28.8 ([8e5b86f](#))
- chore(deps): update pre-commit hook commitizen-tools/commitizen to v2.31.0 ([71d37d9](#))
- chore(deps): update dependency commitizen to v2.31.0 ([4ff0894](#))

Feature

- feat: add support for deployment approval endpoint

Add support for the deployment approval endpoint[1]

[1] <https://docs.gitlab.com/ee/api/deployments.html#approve-or-reject-a-blocked-deployment> Closes: #2253 ([9c9eeb9](#))

- feat: add support for merge_base API ([dd4fdbd5](#))

Unknown

- Merge pull request #2255 from python-gitlab/jl villal/noop

chore: fix issue if only run test_gitlab.py func test ([e095735](#))

- Merge pull request #2241 from python-gitlab/renovate/pycqa-flake8-5.x

chore(deps): update pre-commit hook pycqa/flake8 to v5 ([13d4927](#))

- Merge pull request #2239 from python-gitlab/renovate/commitizen-tools-commitizen-2.x

chore(deps): update pre-commit hook commitizen-tools/commitizen to v2.31.0 ([9381a44](#))

- Merge pull request #2238 from python-gitlab/renovate/commitizen-2.x
chore(deps): update dependency commitizen to v2.31.0 ([b432e47](#))

7.9.14 v3.8.1 (2022-08-10)

Chore

- chore(deps): update dependency commitizen to v2.29.5 ([181390a](#))
- chore(deps): update dependency flake8 to v5.0.4 ([50a4fec](#))
- chore(deps): update dependency sphinx to v5 ([3f3396e](#))
- chore: remove broad Exception catching from `config.py`

Change “except Exception:” catching to more granular exceptions.

A step in enabling the “broad-except” check in pylint. ([@abc90b](#))

- chore: add license badge to readme ([9aecc9e](#))
- chore: consolidate license and authors ([366665e](#))

Fix

- fix(client): do not assume user attrs returned for auth()

This is mostly relevant for people mocking the API in tests. ([a07547c](#))

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- Merge pull request #2233 from python-gitlab/fix/do-not-require-web-url ([99d580a](#))
- Merge pull request #2153 from python-gitlab/renovate/sphinx-5.x

chore(deps): update dependency sphinx to v5 ([1e12eaf](#))

- Merge pull request #2212 from python-gitlab/jl villal/config

chore: remove broad Exception catching from `config.py` ([70e67bf](#))

7.9.15 v3.8.0 (2022-08-04)

Chore

- chore: use `urlunparse` instead of string replace

Use the `urlunparse()` function to reconstruct the URL without the query parameters. ([6d1b62d](#))

- chore(ci): bump semantic-release for fixed commit parser ([1e063ae](#))
- chore: enable mypy check `disallow_any_generics` ([24d17b4](#))
- chore: enable mypy check `no_implicit_optional` ([64b208e](#))
- chore(deps): update dependency types-requests to v2.28.6 ([54dd4c3](#))
- chore(deps): update dependency flake8 to v5 ([cdc384b](#))

- chore(deps): update pre-commit hook commitizen-tools/commitizen to v2.29.2 ([4988c02](#))
- chore(deps): update dependency commitizen to v2.29.2 ([30274ea](#))
- chore: change `_repr_attr` for Project to be `path_with_namespace`

Previously `_repr_attr` was `path` but that only gives the basename of the path. So <https://gitlab.com/gitlab-org/gitlab> would only show “gitlab”. Using `path_with_namespace` it will now show “gitlab-org/gitlab” ([7cccefef](#))

- chore: make code PEP597 compliant

Use `encoding='utf-8'` in `open()` and open-like functions.

<https://peps.python.org/pep-0597/> ([433dba0](#))

- chore: enable mypy check `warn_return_any`

Update code so that the `warn_return_any` check passes. ([76ec4b4](#))

- chore(clusters): deprecate clusters support

Cluster support was deprecated in GitLab 14.5 [1]. And disabled by default in GitLab 15.0 [2]

- Update docs to mark clusters as deprecated
- Remove testing of clusters

[1] https://docs.gitlab.com/ee/api/project_clusters.html [2] <https://gitlab.com/groups/gitlab-org/configure/-/epics/8/b46b379>

- chore(topics): ‘title’ is required when creating a topic

In GitLab >= 15.0 `title` is required when creating a topic. ([271f688](#))

Documentation

- docs: describe self-revoking personal access tokens ([5ea48fc](#))

Feature

- feat(client): warn user on misconfigured URL in `auth()` ([0040b43](#))
- feat: Support downloading archive subpaths ([cadb0e5](#))

Fix

- fix(client): ensure encoded query params are never duplicated ([1398426](#))
- fix: optionally keep user-provided base URL for pagination (#2149) ([e2ea8b8](#))

Refactor

- refactor(client): factor out URL check into a helper ([af21a18](#))
- refactor(client): remove handling for incorrect link header

This was a quirk only present in GitLab 13.0 and fixed with 13.1. See https://gitlab.com/gitlab-org/gitlab-/merge_requests/33714 and <https://gitlab.com/gitlab-org/gitlab/-/issues/218504> for more context. ([77c04b1](#))

Test

- test(unit): reproduce duplicate encoded query params ([6f71c66](#))
- test: attempt to make functional test startup more reliable

The functional tests have been erratic. Current theory is that we are starting the tests before the GitLab container is fully up and running.

- Add checking of the Health Check[1] endpoints.
- Add a 20 second delay after we believe it is up and running.
- Increase timeout from 300 to 400 seconds

[1] https://docs.gitlab.com/ee/user/admin_area/monitoring/health_check.html ([67508e8](#))

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- Merge pull request #2221 from python-gitlab/jl villal/unparse

chore: use `urlunparse` instead of `string replace` ([9e0b60f](#))

- Merge pull request #2219 from python-gitlab/fix/no-duplicate-params

fix(client): ensure encoded query params are never duplicated ([d263f57](#))

- Merge pull request #2220 from python-gitlab/chore/bump-semantic-release

chore(ci): bump semantic-release for fixed commit parser ([2ebfc70](#))

- Merge pull request #2211 from python-gitlab/jl villal/mypy_step_step

chore: enable mypy check `disallow_any_generics` ([1136b17](#))

- Merge pull request #2208 from python-gitlab/renovate/commitizen-tools-commitizen-2.x

chore(deps): update pre-commit hook commitizen-tools/commitizen to v2.29.2 ([6cedbc8](#))

- Merge pull request #2210 from python-gitlab/jl villal/mypy_step_by_step

chore: enable mypy check `no_implicit_optional` ([1c91b24](#))

- Merge pull request #2209 from python-gitlab/renovate/flake8-5.x

chore(deps): update dependency flake8 to v5 ([d81cec3](#))

- Merge pull request #2203 from python-gitlab/jl villal/project_repr

chore: change `_repr_attr` for Project to be `path_with_namespace` ([98bdb98](#))

- Merge pull request #2188 from python-gitlab/jl villal/fix_functional_ci

test: attempt to make functional test startup more reliable ([17414f7](#))

- Merge pull request #2199 from orf/patch-1

Support downloading archive subpaths ([5e1df65](#))

- Merge pull request #2157 from python-gitlab/jl villal/mypy_step_by_step

chore: enable mypy check warn_return_any ([b8be32a](#))

- Merge pull request #2201 from python-gitlab/jl villal/encoding_warning

chore: make code PEP597 compliant ([1b7cd31](#))

- Merge pull request #2194 from python-gitlab/jl villal/update-gitlab

test(functional): bump GitLab docker image to 15.2.0-ee.0 ([7a53c69](#))

7.9.16 v3.7.0 (2022-07-28)

Chore

- chore: revert “test(functional): simplify token creation”

This reverts commit 67ab24fe5ae10a9f8cc9122b1a08848e8927635d. ([4b798fc](#))

- chore: enable using GitLab EE in functional tests

Enable using GitLab Enterprise Edition (EE) in the functional tests. This will allow us to add functional tests for EE only features in the functional tests. ([17c01ea](#))

- chore(deps): update dependency mypy to v0.971 ([7481d27](#))
- chore(deps): update pre-commit hook commitizen-tools/commitizen to v2.29.0 ([ad8d62a](#))
- chore(deps): update typing dependencies ([f2209a0](#))
- chore(deps): update dependency commitizen to v2.29.0 ([c365be1](#))
- chore(authors): fix email and do the ABC ([9833632](#))
- chore: make reset_gitlab() better

Saw issues in the CI where reset_gitlab() would fail. It would fail to delete the group that is created when GitLab starts up. Extending the timeout didn't fix the issue.

Changed the code to use the new helpers.safe_delete() function. Which will delete the resource and then make sure it is deleted before returning.

Also added some logging functionality that can be seen if logging is turned on in pytest. ([d87d6b1](#))

- chore: fixtures: after delete() wait to verify deleted

In our fixtures that create:

- groups
- project merge requests
- projects
- users

They delete the created objects after use. Now wait to ensure the objects are deleted before continuing as having unexpected objects existing can impact some of our tests. ([1f73b6b](#))

- chore: add a lazy boolean attribute to RESTObject

This can be used to tell if a RESTObject was created using lazy=True.

Add a message to the AttributeError if attribute access fails for an instance created with lazy=True. ([a7e8cfb](#))

- chore: enable mypy check `strict_equality`

Enable the mypy `strict_equality` check. ([a29cd6c](#))

- chore: change name of API functional test to `api_func_v4`

The CLI test is `cli_func_v4` and using `api_func_v4` matches with that naming convention. ([8cf5cd9](#))

- chore(deps): update typing dependencies ([e772248](#))
- chore(deps): update pre-commit hook pycqa/pylint to v2.14.5 ([c75a1d8](#))
- chore(deps): update dependency pylint to v2.14.5 ([e153636](#))
- chore(deps): update pre-commit hook commitizen-tools/commitizen to v2.28.0 ([d238e1b](#))
- chore(deps): update dependency commitizen to v2.28.0 ([8703dd3](#))
- chore(deps): update black to v22.6.0 ([82bd596](#))
- chore(deps): update pre-commit hook pycqa/pylint to v2.14.4 ([5cd39be](#))
- chore(ci_lint): add create attributes ([6e1342f](#))
- chore(deps): update dependency requests to v2.28.1 ([be33245](#))
- chore(deps): update dependency pylint to v2.14.4 ([2cee2d4](#))
- chore: simplify multi-nested try blocks

Instead of have a multi-nested series of try blocks. Convert it to a more readable series of `if` statements. ([e734470](#))

- chore(docs): convert tabs to spaces

Some tabs snuck into the documentation. Convert them to 4-spaces. ([9ea5520](#))

- chore: fix misspelling ([2d08fc8](#))

Documentation

- docs(cli): showcase use of token scopes ([4a6f8d6](#))
- docs(projects): document export with upload to URL ([03f5484](#))
- docs: describe fetching existing export status ([9c5b8d5](#))
- docs(authors): add John ([e2afb84](#))
- docs: document CI Lint usage ([d5de4b1](#))
- docs(users): add docs about listing a user's projects

Add docs about listing a user's projects.

Update docs on the membership API to update the URL to the upstream docs and also add a note that it requires Administrator access to use. ([065a1a5](#))

- docs: update return type of pushrules

Update the return type of pushrules to surround None with back-ticks to make it code-formatted. ([53cbecc](#))

- docs: describe ROPC flow in place of password authentication ([91c17b7](#))
- docs(readme): Remove redundant -v that breaks the command Remove redundant -v that breaks the command ([c523e18](#))

Feature

- feat: allow sort/ordering for project releases

See: <https://docs.gitlab.com/ee/api/releases/#list-releases> ([b1dd284](#))

- feat(cli): add a custom help formatter

Add a custom argparse help formatter that overrides the output format to list items vertically.

The formatter is derived from argparse.HelpFormatter with minimal changes.

Co-authored-by: John Villalovos <john@sodarock.com> Co-authored-by: Nejc Habjan <nejc.habjan@siemens.com> ([005ba93](#))

- feat: add support for iterations API ([194ee01](#))
- feat(groups): add support for shared projects API ([66461ba](#))
- feat(issues): add support for issue reorder API ([8703324](#))
- feat(namespaces): add support for namespace existence API ([4882cb2](#))
- feat: add support for group and project invitations API ([7af3d40](#))
- feat(projects): add support for project restore API ([4794ecc](#))
- feat: add support for filtering jobs by scope

See: ‘scope’ here: <https://docs.gitlab.com/ee/api/jobs.html#list-project-jobs> ([0e1c0dd](#))

- feat: add `asdict()` and `to_json()` methods to Gitlab Objects

Add an `asdict()` method that returns a dictionary representation copy of the Gitlab Object. This is a copy and changes made to it will have no impact on the Gitlab Object.

The `asdict()` method name was chosen as both the `dataclasses` and `attrs` libraries have an `asdict()` function which has the similar purpose of creating a dictionary representation of an object.

Also add a `to_json()` method that returns a JSON string representation of the object.

Closes: #1116 ([08ac071](#))

- feat(api): add support for instance-level registry repositories ([284d739](#))
- feat(groups): add support for group-level registry repositories ([70148c6](#))
- feat: Add ‘merge_pipelines_enabled’ project attribute

Boolean. Enable or disable merge pipelines.

See: <https://docs.gitlab.com/ee/api/projects.html#edit-project> https://docs.gitlab.com/ee/ci/pipelines/merged_results_pipelines.html ([fc33c93](#))

- feat: support validating CI lint results ([3b1ede4](#))
- feat(cli): add support for global CI lint ([3f67c4b](#))
- feat(objects): add Project CI Lint support

Add support for validating a project’s CI configuration [1]

[1] <https://docs.gitlab.com/ee/api/lint.html> ([b213dd3](#))

- feat: add support for group push rules

Add the `GroupPushRules` and `GroupPushRulesManager` classes.

Closes: #1259 ([b5cdc09](#))

- feat(api): add support for get for a MR approval rule

In GitLab 14.10 they added support to get a single merge request approval rule [1]

Add support for it to ProjectMergeRequestApprovalRuleManager

[1] https://docs.gitlab.com/ee/api/merge_request_approvals.html#get-a-single-merge-request-level-rule (89c18c6)

Fix

- fix: support array types for most resources (d9126cd)
- fix: use the [] after key names for array variables in params
- 1. If a value is of type ArrayAttribute then append ‘[]’ to the name of the value for query parameters (params).

This is step 3 in a series of steps of our goal to add full support for the GitLab API data types[1]:

- array
- hash
- array of hashes

Step one was: commit 5127b1594c00c7364e9af15e42d2e2f2d909449b Step two was: commit a57334f1930752c70ea15847a39324fa94042460

Fixes: #1698

[1] <https://docs.gitlab.com/ee/#encoding-api-parameters-of-array-and-hash-types> (1af44ce)

- fix(runners): fix listing for /runners/all (c6dd57c)
- fix(config): raise error when gitlab id provided but no config section found (1ef7018)
- fix(config): raise error when gitlab id provided but no config file found (ac46c1c)
- fix: add get_all param (and --get-all) to allow passing all to API (7c71d5d)
- fix: results returned by attributes property to show updates

Previously the attributes method would show the original values in a Gitlab Object even if they had been updated. Correct this so that the updated value will be returned.

Also use copy.deepcopy() to ensure that modifying the dictionary returned can not also modify the object. (e5afffc8)

- fix: Enable epic notes

Add the notes attribute to GroupEpic (5fc3216)

- fix(cli): remove irrelevant MR approval rule list filters (0daec5f)
- fix: ensure path elements are escaped

Ensure the path elements that are passed to the server are escaped. For example a “/” will be changed to “%2F”

Closes: #2116 (5d9c198)

Refactor

- refactor: migrate services to integrations ([a428051](#))
- refactor(objects): move ci lint to separate file ([6491f1b](#))
- refactor(test-projects): apply suggestions and use fixtures ([a51f848](#))

Test

- test(cli): add tests for token scopes ([263fe3d](#))
- test: add test to show issue fixed

<https://github.com/python-gitlab/python-gitlab/issues/1698> has been fixed. Add test to show that. ([75bec7d](#))

- test(functional): bump GitLab docker image to 15.2.0-ee.0

Use the GitLab docker image 15.2.0-ee.0 in the functional testing. ([69014e9](#))

- test: always ensure clean config environment ([8d4f13b](#))
- test(ee): add an EE specific test ([10987b3](#))
- test(functional): simplify token creation ([67ab24f](#))
- test: fix broken test if user had config files

Use `monkeypatch` to ensure that no config files are reported for the test.

Closes: #2172 ([864fc12](#))

- test: allow podman users to run functional tests

Users of `podman` will likely have `DOCKER_HOST` set to something like `unix:///run/user/1000/podman/podman.sock`

Pass this environment variable so that it will be used during the functional tests. ([ff215b7](#))

- test(api_func_v4): catch deprecation warning for `gl.lint()`

Catch the deprecation warning for the call to `gl.lint()`, so it won't show up in the log. ([95fe924](#))

- test(functional): use both `get_all` and `all` in `list()` tests ([201298d](#))
- test: add more tests for container registries ([f6b6e18](#))
- test(functional): replace `len()` calls with list membership checks ([97e0eb9](#))

Unknown

- Merge pull request #2198 from nickbroon/nickbroon-release-sort-order

feat: allow sort/ordering for project releases ([c33cb20](#))

- Merge pull request #2195 from python-gitlab/jlvillal/array_test

test: add test to show issue fixed ([1cf5932](#))

- Merge pull request #1699 from python-gitlab/jlvillal/arrays

fix: use the [] after key names for array variables in `params` ([510ec30](#))

- Merge pull request #1778 from python-gitlab/jlvillal/gitlab-ee

chore: enable using GitLab EE in functional tests ([b661003](#))

- Merge pull request #2184 from python-gitlab/renovate/commitizen-tools-commitizen-2.x
- chore(deps): update pre-commit hook commitizen-tools/commitizen to v2.29.0 (346cf76)
- Merge pull request #2182 from python-gitlab/renovate/commitizen-2.x
- chore(deps): update dependency commitizen to v2.29.0 ([e2ca0b4](#))
- Merge pull request #2173 from python-gitlab/jl villal/config_test_fix
- test: fix broken test if user had config files ([1ecbc7c](#))
- Merge pull request #2166 from python-gitlab/jl villal/podman
- test: allow podman users to run functional tests ([0b02b95](#))
- Merge pull request #1785 from python-gitlab/jl villal/reset_gitlab
- chore: make reset_gitlab() better ([789ef81](#))
- Merge pull request #1784 from python-gitlab/jl villal/sidekiq
- chore: fixtures: after delete() wait to verify deleted ([916b1db](#))
- Merge pull request #2163 from python-gitlab/jl villal/lint_warning
- test(api_func_v4): catch deprecation warning for gl.lint() ([1855279](#))
- Merge pull request #2161 from nickbroon/nickbroon-jobs_scope
- feat: add support for filtering jobs by scope ([0549afa](#))
- Merge pull request #2160 from python-gitlab/docs-author-add-john
- docs(authors): add John ([ead9f15](#))
- Merge pull request #1872 from python-gitlab/jl villal/as_dict
- feat: add asdict() and to_json() methods to Gitlab Objects ([fcbced8](#))
- Merge pull request #2082 from python-gitlab/jl villal/mark_lazy_state
- chore: add a lazy boolean attribute to RESTObject ([2c90fd0](#))
- Merge pull request #2146 from python-gitlab/jl villal/mypy_strict_step_by_step
- chore: enable mypy check strict_equality ([c84379d](#))
- Merge pull request #2147 from python-gitlab/jl villal/api_func_v4
- chore: change name of API functional test to api_func_v4 ([ed110bd](#))
- Merge pull request #2141 from nickbroon/nickbroon-merge_pipelines_enabled
- feat: Add 'merge_pipelines_enabled' project attribute ([e409811](#))
- Merge pull request #2125 from python-gitlab/jl villal/user_docs
- docs(users): add docs about listing a user's projects ([1fbfb22](#))
- Merge pull request #1896 from python-gitlab/jl villal/ci_lint
- feat: add Project CI Lint support ([d15fea0](#))
- Merge pull request #2126 from python-gitlab/jl villal/push_rules
- docs: update return type of pushrules ([88a1535](#))
- Merge pull request #1266 from gokeefe/gokeefe/group_push_rules
- #1259 Add GroupPushRules and GroupPushRulesManager classes ([768890a](#))

- Merge pull request #2114 from python-gitlab/jlvillal/remove_trys
chore: simplify multi-nested try blocks ([3df404c](#))
- Merge pull request #2117 from python-gitlab/jlvillal/encodedid_path
fix: ensure path elements are escaped ([04c6063](#))
- Merge pull request #2113 from tuxiqae/patch-1
Remove redundant -v that breaks the command ([ca3b438](#))
- Merge pull request #2069 from antoineauger/test/unit-tests-projects
test.projects): add unit tests for projects ([0e4db56](#))
- Merge pull request #2110 from python-gitlab/jlvillal/mr_approval_rules
feat(api): add support for get for a MR approval rule ([389e1e6](#))
- Merge pull request #2111 from python-gitlab/jlvillal/meta_fix
chore: fix misspelling ([6486566](#))
- Merge pull request #2112 from python-gitlab/jlvillal/doc_remove_tabs
chore(docs): convert tabs to spaces ([8771ad8](#))

7.9.17 v3.6.0 (2022-06-28)

Chore

- chore(deps): ignore python-semantic-release updates ([f185b17](#))
- chore(workflows): explicitly use python-version ([eb14475](#))
- chore(deps): update typing dependencies ([acc5c39](#))
- chore(deps): update actions/setup-python action to v4 ([77c1f03](#))
- chore(deps): update pre-commit hook pycqa/pylint to v2.14.3 ([d1fe838](#))
- chore(ci): increase timeout for docker container to come online

Have been seeing timeout issues more and more. Increase timeout from 200 seconds to 300 seconds (5 minutes). ([bda020b](#))

- chore(docs): ignore nitpicky warnings ([1c3efb5](#))
- chore: patch sphinx for explicit re-exports ([06871ee](#))
- chore: bump mypy pre-commit hook ([0bbcad7](#))
- chore(gitlab): fix implicit re-exports for mpypy ([981b844](#))
- chore: add link to Commitizen in Github workflow

Add a link to the Commitizen website in the Github workflow. Hopefully this will help people when their job fails. ([d08d07d](#))

- chore(deps): update dependency pylint to v2.14.3 ([9a16bb1](#))
- chore(deps): update pre-commit hook commitizen-tools/commitizen to v2.27.1 ([22c5db4](#))
- chore(deps): update dependency requests to v2.28.0 ([d361f4b](#))
- chore: fix issue found with pylint==2.14.3

A new error was reported when running pylint==2.14.3: gitlab/client.py:488:0: W1404: Implicit string concatenation found in call (implicit-str-concat)

Fixed this issue. ([eeab035](#))

- chore(deps): update dependency mypy to v0.961 ([f117b2f](#))
- chore(deps): update typing dependencies ([aebf9c8](#))
- chore(deps): update dependency mypy to v0.960 ([8c016c7](#))
- chore(cli): rename “object” to “GitLab resource”

Make the parser name more user friendly by renaming from generic “object” to “GitLab resource” ([62e64a6](#))

- chore: use multiple processors when running PyLint

Use multiple processors when running PyLint. On my system it took about 10.3 seconds to run PyLint before this change. After this change it takes about 5.8 seconds to run PyLint. ([7f2240f](#))

- chore: rename whaction and action to resource_action in CLI

Rename the variables whaction and action to resource_action to improve code-readability. ([fb3f28a](#))

- chore: enable pylint check: “redefined-outer-name”,

Enable the pylint check “redefined-outer-name” and fix the errors detected. ([1324ce1](#))

- chore: enable pylint check: “no-self-use”

Enable the pylint check “no-self-use” and fix the errors detected. ([80aadaf](#))

- chore: enable pylint check: “no-else-return”

Enable the pylint check “no-else-return” and fix the errors detected. ([d0b0811](#))

- chore: enable pylint check: “attribute-defined-outside-init”

Enable the pylint check: “attribute-defined-outside-init” and fix errors detected. ([d6870a9](#))

- chore: enable pylint check “raise-missing-from”

Enable the pylint check “raise-missing-from” and fix errors detected. ([1a2781e](#))

- chore: enable pylint checks which require no changes

Enabled the pylint checks that don’t require any code changes. Previously these checks were disabled. ([50fdbbc4](#))

- chore: enable pylint checks

Enable the pylint checks:

- unnecessary-pass
- unspecified-encoding

Update code to resolve errors found ([1e89164](#))

- chore: rename what to gitlab_resource

Naming a variable what makes it difficult to understand what it is used for.

Rename it to gitlab_resource as that is what is being stored.

The Gitlab documentation talks about them being resources: https://docs.gitlab.com/ee/api/api_resources.html

This will improve code readability. ([c86e471](#))

- chore: rename __call__() to run() in GitlabCLI

Less confusing to have it be a normal method. ([6189437](#))

- chore: enable ‘consider-using-sys-exit’ pylint check

Enable the ‘consider-using-sys-exit’ pylint check and fix errors raised. ([0afcc3e](#))

- chore: require f-strings

We previously converted all string formatting to use f-strings. Enable pylint check to enforce this. ([96e994d](#))

- chore(ci): pin 3.11 to beta.1 ([7119f2d](#))
- chore(cli): ignore coverage on exceptions triggering cli.die ([98ccc3c](#))
- chore: move `utils._validate_attrs` inside `types.RequiredOptional`

Move the `validate_attrs` function to be inside the `RequiredOptional` class. It makes sense for it to be part of the class as it is working on data related to the class. ([9d629bb](#))

- chore: remove use of ‘%’ string formatter in `gitlab/utils.py`

Replace usage with f-string ([0c5a121](#))

- chore: have `EncodedId` creation always return `EncodedId`

There is no reason to return an `int` as we can always return a `str` version of the `int`

Change `EncodedId` to always return an `EncodedId`. This removes the need to have `mypy` ignore the error raised. ([a1a246f](#))

- chore: move `RequiredOptional` to the `gitlab.types` module

By having `RequiredOptional` in the `gitlab.base` module it makes it difficult with circular imports. Move it to the `gitlab.types` module which has no dependencies on any other gitlab module. ([7d26530](#))

- chore: update type-hints return signature for `GetWithoutIdMixin` methods

Commit `f0152dc3cc9a42aa4dc3c0014b4c29381e9b39d6` removed situation where `get()` in a `GetWithoutIdMixin` based class could return `None`

Update the type-hints to no longer return `Optional` AKA `None` ([aa972d4](#))

- chore(deps): update dependency commitizen to v2.27.1 ([456f9f1](#))
- chore(deps): update typing dependencies ([f3f79c1](#))
- chore: correct `ModuleNotFoundError()` arguments

Previously in commit `233b79ed442aac66faf9eb4b0087ea126d6dff5` I had used the `name` argument for `ModuleNotFoundError()`. This basically is the equivalent of not passing any message to `ModuleNotFoundError()`. So when the exception was raised it wasn’t very helpful.

Correct that and add a unit-test that shows we get the message we expect. ([0b7933c](#))

- chore(mixins): remove `None` check as `http_get` always returns value ([f0152dc](#))

Documentation

- docs(api): add separate section for advanced usage ([22ae101](#))
- docs(api): document usage of `head()` methods ([f555bfb](#))
- docs(projects): provide more detailed import examples ([8f8611a](#))
- docs(projects): document 404 gotcha with unactivated integrations ([522ecff](#))
- docs(variables): instruct users to follow GitLab rules for values ([194b6be](#))
- docs(api): stop linking to `python-requests.org` ([49c7e83](#))

- docs(api): fix incorrect docs for merge_request_approvals (#2094)
- docs(api): fix incorrect docs for merge_request_approvals

The `set_approvers()` method is on the `ProjectApprovalManager` class. It is not part of the `ProjectApproval` class.

The docs were previously showing to call `set_approvers` using a `ProjectApproval` instance, which would fail. Correct the documentation.

This was pointed out by a question on the Gitter channel.

Co-authored-by: Nejc Habjan <nejc.habjan@siemens.com> ([5583eaa](#))

- docs(api-usage): add import os in example ([2194a44](#))
- docs: drop deprecated setuptools build_sphinx ([048d66a](#))
- docs(usage): refer to upstream docs instead of custom attributes ([ae7d3b0](#))
- docs(ext): fix rendering for RequiredOptional dataclass ([4d431e5](#))
- docs: documentation updates to reflect addition of mutually exclusive attributes ([24b720e](#))
- docs: use `as_list=False` or `all=True` in Getting started

In the “Getting started with the API” section of the documentation, use either `as_list=False` or `all=True` in the example usages of the `list()` method.

Also add a warning about the fact that `list()` by default does not return all items. ([de8c6e8](#))

Feature

- feat(downloads): allow streaming downloads access to response iterator (#1956)
- feat(downloads): allow streaming downloads access to response iterator

Allow access to the underlying response iterator when downloading in streaming mode by specifying `iterator=True`.

Update type annotations to support this change.

- docs(api-docs): add iterator example to artifact download

Document the usage of the `iterator=True` option when downloading artifacts

- test(packages): add tests for streaming downloads ([b644721](#))
- feat(api): support head() method for get and list endpoints ([ce9216c](#))
- feat(api): implement HEAD method ([90635a7](#))
- feat(users): add approve and reject methods to User

As requested in #1604.

Co-authored-by: John Villalovos <john@sodarock.com> ([f57139d](#))

- feat(api): convert gitlab.const to Enums

This allows accessing the elements by value, i.e.:

`import gitlab.const` `gitlab.const.AccessLevel(20)` ([c3c6086](#))

- feat: Add support for Protected Environments
- https://docs.gitlab.com/ee/api/protected_environments.html
- <https://github.com/python-gitlab/python-gitlab/issues/1130>

no write operation are implemented yet as I have no use case right now and am not sure how it should be done ([1dc9d0f](#))

- feat(users): add ban and unban methods ([0d44b11](#))
- feat(docker): provide a Debian-based slim image ([384031c](#))
- feat: support mutually exclusive attributes and consolidate validation to fix board lists (#2037)

add exclusive tuple to RequiredOptional data class to support for mutually exclusive attributes

consolidate `_check_missing_create_attrs` and `_check_missing_update_attrs` from `mixins.py` into `_validateAttrs` in `utils.py`

change `_createAttrs` in board list manager classes from `required=('label_id',)` to `exclusive=('label_id', 'assignee_id', 'milestone_id')`

closes <https://github.com/python-gitlab/python-gitlab/issues/1897> ([3fa330c](#))

- feat(client): introduce `iterator=True` and deprecate `as_list=False` in `list()`

`as_list=False` is confusing as it doesn't explain what is being returned. Replace it with `iterator=True` which more clearly explains to the user that an iterator/generator will be returned.

This maintains backward compatibility with `as_list` but does issue a `DeprecationWarning` if `as_list` is set. ([cdc6605](#))

Fix

- fix(base): do not fail `repr()` on lazy objects ([1efb123](#))
- fix(cli): project-merge-request-approval-rule

Using the CLI the command: `gitlab project-merge-request-approval-rule list -mr-iid 1 --project-id foo/bar`

Would raise an exception. This was due to the fact that `_id_attr` and `_repr_attr` were set for keys which are not returned in the response.

Add a unit test which shows the `repr` function now works. Before it did not.

This is an EE feature so we can't functional test it.

Closes: #2065 ([15a242c](#))

- fix(cli): fix project export download for CLI

Since ac1c619cae6481833f5df91862624bf0380fef67 we delete parent arg keys from the args dict so this has been trying to access the wrong attribute. ([5d14867](#))

Refactor

- refactor: do not recommend plain `gitlab.const` constants ([d652133](#))
- refactor: avoid possible breaking change in iterator (#2107)

Commit b6447211754e126f64e12fc735ad74fe557b7fb4 inadvertently introduced a possible breaking change as it added a new argument `iterator` and added it in between existing (potentially positional) arguments.

This moves the `iterator` argument to the end of the argument list and requires it to be a keyword-only argument. ([212ddfc](#))

- refactor: remove no-op id argument in `GetWithoutIdMixin` ([0f2a602](#))
- refactor(test-projects): remove `test_restore_project` ([9be0875](#))
- refactor(mixins): extract custom type transforms into `utils` ([09b3b22](#))

Test

- test: add tests and clean up usage for new enums ([323ab3c](#))
- test(pylint): enable pylint “unused-argument” check

Enable the pylint “unused-argument” check and resolve issues it found.

- Quite a few functions were accepting `**kwargs` but not then passing them on through to the next level. Now pass `**kwargs` to next level.
- Other functions had no reason to accept `**kwargs`, so remove it
- And a few other fixes. ([23feae9](#))
- test(api): add tests for HEAD method ([b0f02fa](#))
- test(projects): add unit tests for projects ([67942f0](#))
- test: move back to using latest Python 3.11 version ([8c34781](#))
- test: increase client coverage ([00aec96](#))
- test: add more tests for RequiredOptional ([ce40fde](#))
- test(cli): improve coverage for custom actions ([7327f78](#))
- test(gitlab): increase unit test coverage ([df072e1](#))

Unknown

- Merge pull request #2105 from python-gitlab/renovate/actions-setup-python-4.x
- chore(deps): update actions/setup-python action to v4 ([ebd5795](#))
- Merge pull request #2100 from python-gitlab/jlvillal/pylint_2022-06-26
- test(pylint): enable pylint “unused-argument” check ([3c3f865](#))
- Merge pull request #2061 from bgamari/patch-1
- feat(users): add approve and reject methods to User ([f9b7c7b](#))
- Merge pull request #2089 from python-gitlab/jlvillal/more_time
- chore(ci): increase timeout for docker container to come online ([a825844](#))
- Merge pull request #1688 from jspricke/enum
- feat(api): Convert gitlab.const to Enums ([f0ac3cd](#))
- Merge pull request #2084 from calve/protected-environments
- feat: Add support for Protected Environments ([1feabc0](#))
- Merge pull request #2083 from python-gitlab/jlvillal/cz
- chore: add link to Commitizen in Github workflow ([8342f53](#))
- Merge pull request #2066 from python-gitlab/jlvillal/approval_rule_id
- fix(cli): project-merge-request-approval-rule ([41ceaca](#))
- Merge pull request #2076 from python-gitlab/renovate/pylint-2.x
- chore(deps): update dependency pylint to v2.14.3 ([e48ad91](#))
- Merge pull request #2077 from python-gitlab/jlvillal/pylint

chore: fix issue found with pylint==2.14.3 ([8e0cd8b](#))

- Merge pull request #2064 from antoineauger/feat/user-ban-unban

feat(users): add ban and unban methods ([ca98d88](#))

- Merge pull request #2057 from walterrowe/main

docs: update docs to reflect addition of mutually exclusive attributes ([0f607f6](#))

- Merge pull request #2055 from python-gitlab/jlvillal/resource

chore(cli): rename “object” to “GitLab resource” ([0e3c461](#))

- Merge pull request #2045 from python-gitlab/jlvillal/test_validateAttrs

test: add more tests for RequiredOptional ([40c9b4f](#))

- Merge pull request #2056 from python-gitlab/jlvillal/pylint_job

chore: use multiple processors when running PyLint ([7b9bb3c](#))

- Merge pull request #2051 from python-gitlab/jlvillal/more_more_pylint

chore: enable more pylint checks ([7a5923c](#))

- Merge pull request #2054 from python-gitlab/jlvillal/resource

chore: rename whaction and action to resource_action in CLI ([61b8beb](#))

- Merge pull request #2049 from python-gitlab/jlvillal/python_311

test: move back to using latest Python 3.11 version ([6cdcccd9](#))

- Merge pull request #2053 from python-gitlab/jlvillal/resource

chore: rename what to gitlab_resource ([8d30b15](#))

- Merge pull request #2052 from python-gitlab/jlvillal/cli_minor_clean

chore: rename __call__() to run() in GitlabCLI ([4eb5bad](#))

- Merge pull request #2050 from python-gitlab/jlvillal/more_pylint

chore: enable ‘consider-using-sys-exit’ pylint check ([9ab3c10](#))

- Merge pull request #2043 from python-gitlab/jlvillal/f-string

chore: require f-strings ([3d000d3](#))

- Merge pull request #2042 from python-gitlab/jlvillal/exclusive

Clean-up the validateAttrs method/function ([28cf3c3](#))

- Merge pull request #2040 from python-gitlab/jlvillal/type_alias

chore: have EncodedId creation always return EncodedId ([dea9435](#))

- Merge pull request #2039 from python-gitlab/jlvillal/required_optional

chore: move RequiredOptional to the gitlab.types module ([37eb8e0](#))

- Merge pull request #2036 from python-gitlab/jlvillal/get_not_none

chore: update type-hints return signature for GetWithoutIdMixin methods ([1f17349](#))

- Merge pull request #2033 from python-gitlab/jlvillal/module_not_found_error

chore: correct ModuleNotFoundError() arguments ([b2e6f3b](#))

- Merge pull request #2034 from python-gitlab/renovate/typing-dependencies

chore(deps): update typing dependencies (38218e5)

- Merge pull request #2035 from python-gitlab/renovate/commitizen-2.x

chore(deps): update dependency commitizen to v2.27.1 (91e60ba)

- Merge pull request #2032 from python-gitlab/jvillal/i_hate_as_list

feat(client): introduce `iterator=True` and deprecate `as_list=False` in `list()` (c51b538)

- Merge pull request #1884 from python-gitlab/jvillal/list_docs

docs: use `as_list=False` or `all=True` in Getting started (5ae18d0)

7.9.18 v3.5.0 (2022-05-28)

Chore

- chore(ci): fix prefix for action version (1c02189)
- chore(ci): pin semantic-release version (0ea61cc)
- chore(deps): update pre-commit hook pycqa/pylint to v2.13.9 (1e22790)
- chore(deps): update dependency pylint to v2.13.9 (4224950)
- chore: run the `pylint` check by default in tox

Since we require `pylint` to pass in the CI. Let's run it by default in tox. (55ace1d)

- chore: rename the test which runs `flake8` to be `flake8`

Previously the test was called `pep8`. The test only runs `flake8` so call it `flake8` to be more precise. (78b4f99)

- chore(deps): update pre-commit hook pycqa/pylint to v2.13.8 (1835593)
- chore(deps): update dependency pylint to v2.13.8 (b235bb0)
- chore: add `cz` to default tox environment list and `skip_missing_interpreters`

Add the `cz` (`comittizen`) check by default.

Set `skip_missing_interpreters = True` so that when a user runs tox and doesn't have a specific version of Python it doesn't mark it as an error. (ba8c052)

- chore: exclude `build/` directory from `mypy` check

The `build/` directory is created by the tox environment `twine-check`. When the `build/` directory exists `mypy` will have an error. (989a12b)

- chore(deps): update dependency types-requests to v2.27.25 (d6ea47a)
- chore(ci): replace commitlint with commitizen (b8d15fe)
- chore(renovate): set schedule to reduce noise (882fe7a)
- chore(deps): update dependency types-requests to v2.27.24 (f88e3a6)
- chore(deps): update dependency types-requests to v2.27.23 (a6fed8b)

Documentation

- docs: update issue example and extend API usage docs ([aad71d2](#))
- docs(ATTRIBUTING.rst): fix link to conventional-changelog commit format documentation ([2373a4f](#))
- docs: add missing Admin access const value

As shown here, Admin access is set to 60: https://docs.gitlab.com/ee/api/protected_branches.html#protected-branches-api ([3e0d4d9](#))

- docs(merge_requests): add new possible merge request state and link to the upstream docs

The actual documentation do not mention the locked state for a merge request ([e660fa8](#))

Feature

- feat(objects): support get project storage endpoint ([8867ee5](#))
- feat: display human-readable attribute in `repr()` if present ([6b47c26](#))
- feat(ux): display `project.name_with_namespace` on project repr

This change the repr from:

```
$ gitlab.projects.get(id=some_id) <Project id:some_id>
```

To:

```
$ gitlab.projects.get(id=some_id) <Project id:some_id name_with_namespace:"group_name / project_name">
```

This is especially useful when working on random projects or listing of projects since users generally don't remember projects ids. ([e598762](#))

Fix

- fix(cli): changed default `allow_abbrev` value to fix arguments collision problem (#2013)

fix(cli): change default `allow_abbrev` value to fix argument collision ([d68cacf](#))

- fix: duplicate subparsers being added to argparse

Python 3.11 added an additional check in the argparse library which detected duplicate subparsers being added. We had duplicate subparsers being added.

Make sure we don't add duplicate subparsers.

Closes: #2015 ([f553fd3](#))

Test

- test(projects): add tests for list project methods ([fa47829](#))

Unknown

- Merge pull request #2022 from MichaelSweikata/feat/documentation-update
docs: update issue example and extend API usage docs ([792cee9](#))
- Merge pull request #2012 from rnoberger/rnoberger/test-projects
test: increase projects coverage ([fd9154e](#))
- Merge pull request #2019 from python-gitlab/jlvillal/tox
Some improvements to our tox environment defaults ([d121d2d](#))
 - Merge pull request #2018 from python-gitlab/renovate/pycqa-pylint-2.x
chore(deps): update pre-commit hook pycqa/pylint to v2.13.8 ([9e64645](#))
 - Merge pull request #2017 from python-gitlab/renovate/pylint-2.x
chore(deps): update dependency pylint to v2.13.8 ([0049f83](#))
 - Merge pull request #2014 from python-gitlab/jlvillal/python3.11beta1
fix: duplicate subparsers being added to argparse ([7d5a0c9](#))
 - Merge pull request #1996 from Psycojoker/project-name-in-repr
feat(ux): display project.name_with_namespace on project repr ([82c9a07](#))
 - Merge pull request #2008 from python-gitlab/jlvillal/mypy-tox
chore: exclude build/ directory from mypy check ([d169983](#))
 - Merge pull request #2009 from python-gitlab/jlvillal/tox-env
chore: add cz to default tox environment list and skip_missing_interpreters ([5cb2859](#))
 - Merge pull request #2005 from carlosduelo/patch-1
merge request can have state locked ([ef207da](#))
 - Merge pull request #2001 from python-gitlab/renovate/typing-dependencies
chore(deps): update dependency types-requests to v2.27.25 ([04e0d24](#))
 - Merge pull request #1994 from python-gitlab/renovate/typing-dependencies
chore(deps): update dependency types-requests to v2.27.24 ([79b903d](#))

7.9.19 v3.4.0 (2022-04-28)

Chore

- chore(deps): update dependency mypy to v0.950 ([241e626](#))
- chore(deps): update dependency types-requests to v2.27.22 ([22263e2](#))
- chore(deps): update dependency types-requests to v2.27.21 ([0fb0955](#))
- chore(deps): update dependency pytest to v7.1.2 ([fd3fa23](#))
- chore(deps): update typing dependencies ([c12466a](#))
- chore(deps): update pre-commit hook pycqa/pylint to v2.13.7 ([1396221](#))
- chore(deps): update dependency pylint to v2.13.7 ([5fb2234](#))

- chore(deps): update typing dependencies ([d27cc6a](#))
- chore(deps): update dependency pylint to v2.13.5 ([5709675](#))
- chore(deps): update pre-commit hook pycqa/pylint to v2.13.5 ([17d5c6c](#))
- chore(deps): update codecov/codecov-action action to v3 ([292e91b](#))
- chore(deps): update dependency types-setuptools to v57.4.12 ([6551353](#))
- chore(client): remove duplicate code ([5cbbf26](#))
- chore(deps): update dependency types-requests to v2.27.16 ([ad799fc](#))
- chore(deps): upgrade gitlab-ce to 14.9.2-ce.0 ([d508b18](#))
- chore(deps): update pre-commit hook pycqa/pylint to v2.13.4 ([9d0b252](#))
- chore(deps): update dependency pylint to v2.13.4 ([a9a9392](#))
- chore(deps): update pre-commit hook pycqa/pylint to v2.13.3 ([8f0a3af](#))
- chore(deps): update dependency pylint to v2.13.3 ([0ae3d20](#))
- chore(deps): update black to v22.3.0 ([8d48224](#))

Documentation

- docs(api-docs): docs fix for application scopes ([e1ad93d](#))

Feature

- feat: emit a warning when using a `list()` method returns max

A common cause of issues filed and questions raised is that a user will call a `list()` method and only get 20 items. As this is the default maximum of items that will be returned from a `list()` method.

To help with this we now emit a warning when the result from a `list()` method is greater-than or equal to 20 (or the specified `per_page` value) and the user is not using either `all=True`, `all=False`, `as_list=False`, or `page=X`. ([1339d64](#))

- feat(objects): support getting project/group deploy tokens by id ([fcd37fe](#))
- feat(user): support getting user SSH key by id ([6f93c05](#))
- feat(api): re-add topic delete endpoint

This reverts commit e3035a799a484f8d6c460f57e57d4b59217cd6de. ([d1d96bd](#))

Fix

- fix: add ChunkedEncodingError to list of retryable exceptions ([7beb20f](#))
- fix: avoid passing redundant arguments to API ([3431887](#))
- fix(cli): add missing filters for project commit list ([149d244](#))
- fix: add 52x range to retry transient failures and tests ([c3ef1b5](#))
- fix: also retry HTTP-based transient errors ([3b49e4d](#))

Unknown

- Merge pull request #1988 from python-gitlab/renovate/mypy-0.x
chore(deps): update dependency mypy to v0.950 ([0c0035e](#))
- Merge pull request #1986 from python-gitlab/renovate/typing-dependencies
chore(deps): update dependency types-requests to v2.27.21 ([ab8352e](#))
- Merge pull request #1983 from python-gitlab/renovate/pytest-7.x
chore(deps): update dependency pytest to v7.1.2 ([4a6bd90](#))
- Merge pull request #1981 from python-gitlab/renovate/typing-dependencies
chore(deps): update typing dependencies ([cf2953e](#))
- Merge pull request #1980 from python-gitlab/renovate/pycqa-pylint-2.x
chore(deps): update pre-commit hook pycqa/pylint to v2.13.7 ([0305979](#))
 - Merge pull request #1979 from python-gitlab/renovate/pylint-2.x
chore(deps): update dependency pylint to v2.13.7 ([396e30c](#))
 - Merge pull request #1965 from python-gitlab/fix/redundant-args-api
fix: avoid passing redundant arguments to API ([ba7692a](#))
 - Merge pull request #1974 from Sineaggi/add-chunked-to-list-of-retryable-exceptions
Add ChunkedEncodingError to list of retryable exceptions ([07a16af](#))
 - Merge pull request #1963 from python-gitlab/feat/deploy-token-get
feat(objects): support getting project/group deploy tokens by id ([69ace2d](#))
 - Merge pull request #1962 from python-gitlab/feat/user-ssh-key
feat(user): support getting user SSH key by id ([68bf5d8](#))
 - Merge pull request #1875 from python-gitlab/jlvillal/list_warning
feat: emit a warning when using a `list()` method returns max ([4d6f125](#))
 - Merge pull request #1971 from python-gitlab/renovate/pycqa-pylint-2.x
chore(deps): update pre-commit hook pycqa/pylint to v2.13.5 ([5370979](#))
 - Merge pull request #1964 from python-gitlab/fix/missing-commit-list-filters
fix(cli): add missing filters for project commit list ([3b0806e](#))
 - Merge pull request #1968 from python-gitlab/renovate/codecov-codecov-action-3.x
chore(deps): update codecov/codecov-action action to v3 ([de8cf9d](#))
 - Merge pull request #1967 from python-gitlab/renovate/typing-dependencies
chore(deps): update dependency types-setuptools to v57.4.12 ([3be5ac2](#))
 - Merge pull request #1904 from Sineaggi/retry-additional-http-transient-errors
Retry additional http transient errors ([0353bd4](#))
 - Merge pull request #1961 from python-gitlab/renovate/typing-dependencies
chore(deps): update dependency types-requests to v2.27.16 ([19ab07d](#))
 - Merge pull request #1959 from python-gitlab/renovate/pycqa-pylint-2.x

chore(deps): update pre-commit hook pycqa/pylint to v2.13.4 ([8db6841](#))

- Merge pull request #1958 from python-gitlab/renovate/pylint-2.x

chore(deps): update dependency pylint to v2.13.4 ([400d8e5](#))

- Merge pull request #1951 from wacuuu/main

docs: small docs fix-up for application scopes ([8e241e4](#))

- Merge pull request #1954 from python-gitlab/renovate/pycqa-pylint-2.x

chore(deps): update pre-commit hook pycqa/pylint to v2.13.3 ([eee173e](#))

- Merge pull request #1953 from python-gitlab/renovate/pylint-2.x

chore(deps): update dependency pylint to v2.13.3 ([5498f9e](#))

- Merge pull request #1952 from python-gitlab/renovate/black

chore(deps): update black to v22.3.0 ([f942e65](#))

7.9.20 v3.3.0 (2022-03-28)

Chore

- chore(deps): update dependency sphinx to v4.5.0 ([36ab769](#))
- chore(deps): update pre-commit hook pycqa/pylint to v2.13.2 ([14d367d](#))
- chore(deps): update dependency pylint to v2.13.2 ([10f15a6](#))
- chore(deps): update dependency types-requests to v2.27.15 ([2e8ecf5](#))
- chore(deps): update pre-commit hook pycqa/pylint to v2.13.1 ([1d0c6d4](#))
- chore(deps): update dependency types-requests to v2.27.14 ([be6b54c](#))
- chore(deps): update dependency pylint to v2.13.1 ([eefd724](#))
- chore(deps): update pre-commit hook pycqa/pylint to v2.13.0 ([9fe60f7](#))
- chore(deps): update dependency pylint to v2.13.0 ([5fa403b](#))
- chore(deps): update dependency mypy to v0.942 ([8ba0f8c](#))
- chore(deps): update dependency pytest-console-scripts to v1.3.1 ([da392e3](#))
- chore(deps): update dependency pytest to v7.1.1 ([e31f2ef](#))
- chore(deps): update typing dependencies ([21e7c37](#))
- chore(deps): update dependency mypy to v0.941 ([3a9d4f1](#))
- chore(deps): update dependency pytest to v7.1.0 ([27c7e33](#))
- chore(deps): update dependency types-requests to v2.27.12 ([8cd668e](#))
- chore(deps): update dependency mypy to v0.940 ([dd11084](#))
- chore(deps): update dependency types-setuptools to v57.4.10 ([b37fc41](#))
- chore(deps): update dependency pytest to v7 ([ae8d70d](#))
- chore(deps): update actions/upload-artifact action to v3 ([18a0eae](#))
- chore(deps): update actions/stale action to v5 ([d841185](#))

- chore(deps): update actions/setup-python action to v3 ([7f845f7](#))
- chore(deps): update pre-commit hook alessandrojcm/commitlint-pre-commit-hook to v8 ([5440780](#))
- chore(deps): update black to v22 ([3f84f1b](#))
- chore(deps): update dependency sphinx to v4.4.0 ([425d161](#))
- chore(deps): update actions/checkout action to v3 ([7333cbb](#))
- chore(deps): update dependency pytest-console-scripts to v1.3 ([9c202dd](#))
- chore(deps): update dependency mypy to v0.931 ([33646c1](#))
- chore(deps): update typing dependencies ([37a7c40](#))
- chore(deps): update dependency requests to v2.27.1 ([95dad55](#))

Documentation

- docs: fix typo and incorrect style ([2828b10](#))
- docs: add pipeline test report summary support ([d78afb3](#))
- docs(chore): include docs .js files in sdist ([3010b40](#))

Feature

- feat(object): add pipeline test report summary support ([a97e0cf](#))

Style

- style: reformat for black v22 ([93d4403](#))

Unknown

- Merge pull request #1947 from python-gitlab/renovate/typing-dependencies
- chore(deps): update dependency types-requests to v2.27.15 ([59ae16c](#))
- Merge pull request #1895 from python-gitlab/jvillal/rate-limit
- fix: support RateLimit-Reset header ([114958e](#))
- Merge pull request #1905 from derekschrock/docs-static
- docs(chore): Include docs .js files in sdist ([363bc87](#))
- Merge pull request #1917 from python-gitlab/renovate/major-black
- chore(deps): update black to v22 (major) ([a4e76eb](#))
- Merge pull request #1919 from python-gitlab/renovate/alessandrojcm-commitlint-pre-commit-hook-8.x
- chore(deps): update pre-commit hook alessandrojcm/commitlint-pre-commit-hook to v8 ([71ebee4](#))
- Merge pull request #1915 from kinbald/test-report-summary
- feat: add support for test report summary ([7966584](#))

7.9.21 v3.2.0 (2022-02-28)

Chore

- chore: create a custom `warnings.warn` wrapper

Create a custom `warnings.warn` wrapper that will walk the stack trace to find the first frame outside of the `gitlab/` path to print the warning against. This will make it easier for users to find where in their code the error is generated from ([6ca9aa2](#))

- chore: correct type-hints for `per_page` attribute

There are occasions where a GitLab `list()` call does not return the `x-per-page` header. For example the listing of custom attributes.

Update the type-hints to reflect that. ([e825653](#))

- chore: require kwargs for `utils.copy_dict()`

The non-keyword arguments were a tiny bit confusing as the destination was first and the source was second.

Change the order and require key-word only arguments to ensure we don't silently break anyone. ([7cf35b2](#))

- chore: create new `ArrayAttribute` class

Create a new `ArrayAttribute` class. This is to indicate types which are sent to the GitLab server as arrays
<https://docs.gitlab.com/ee/api/#array>

At this stage it is identical to the `CommaSeparatedListAttribute` class but will be used later to support the array types sent to GitLab.

This is the second step in a series of steps of our goal to add full support for the GitLab API data types[1]:

- array
- hash
- array of hashes

Step one was: commit [5127b1594c00c7364e9af15e42d2e2f2d909449b](#)

[1] <https://docs.gitlab.com/ee/api/#encoding-api-parameters-of-array-and-hash-types>

Related: #1698 ([a57334f](#))

- chore(ci): do not run release workflow in forks ([2b6edb9](#))

Documentation

- docs: enable gitter chat directly in docs ([bd1ecdd](#))
- docs: add delete methods for runners and project artifacts ([5e711fd](#))
- docs: add `retry_transient` infos

Co-authored-by: Nejc Habjan <hab.nejc@gmail.com> ([bb1f054](#))

- docs: add transient errors retry info ([b7a1266](#))
- docs(artifacts): deprecate `artifacts()` and `artifact()` methods ([64d01ef](#))
- docs: revert “chore: add temporary banner for v3” (#1864)

This reverts commit [a349793307e3a975bb51f864b48e5e9825f70182](#).

Co-authored-by: Wadim Klincov <wadim.klincov@siemens.com> ([7a13b9b](#))

Feature

- feat(merge_request_approvals): add support for deleting MR approval rules ([85a734f](#))
- feat(artifacts): add support for project artifacts delete API ([c01c034](#))
- feat(mixins): allow deleting resources without IDs ([0717517](#))
- feat(objects): add a complete artifacts manager ([c8c2fa7](#))

Fix

- fix: support RateLimit-Reset header

Some endpoints are not returning the `Retry-After` header when rate-limiting occurs. In those cases use the `RateLimit-Reset` [1] header, if available.

Closes: #1889

[1] https://docs.gitlab.com/ee/user/admin_area/settings/user_and_ip_rate_limits.html#response-headers ([4060146](#))

- fix(services): use slug for `id_attr` instead of custom methods ([e30f39d](#))
- fix: remove custom `delete` method for labels

The usage of `delete` was incorrect according to the current API. Remove custom `delete()` method as not needed.

Add tests to show it works with labels needing to be encoded.

Also enable the `test_group_labels()` test function. Previously it was disabled.

Add ability to do a `get()` for group labels.

Closes: #1867 ([0841a2a](#))

Style

- style(objects): add spacing to docstrings ([700d25d](#))

Test

- test(unit): clean up MR approvals fixtures ([0eb4f7f](#))
- test(runners): add test for deleting runners by auth token ([14b88a1](#))
- test(functional): fix GitLab configuration to support pagination

When pagination occurs python-gitlab uses the URL provided by the GitLab server to use for the next request.

We had previously set the GitLab server configuraiton to say its URL was `http://gitlab.test` which is not in DNS. Set the hostname in the URL to `http://127.0.0.1:8080` which is the correct URL for the GitLab server to be accessed while doing functional tests.

Closes: #1877 ([5b7d00d](#))

- test(services): add functional tests for services ([2fea2e6](#))
- test(objects): add tests for project artifacts ([8ce0336](#))

Unknown

- Merge pull request #1882 from python-gitlab/jlvillal/custom_warn
chore: create a custom `warnings.warn` wrapper ([5beda3b](#))
- Merge pull request #1881 from python-gitlab/jlvillal/easy2
test(functional): fix GitLab configuration to support pagination ([4cb7d92](#))
- Merge pull request #1880 from python-gitlab/jlvillal/easy
chore: correct type-hints for `per_page` attribute ([5e19694](#))
- Merge pull request #1876 from emirot/patch-1
docs: add transient errors retry info ([9897c98](#))
- Merge pull request #1871 from python-gitlab/jlvillal/copy_dict
chore: require kwargs for `utils.copy_dict()` ([2adf31d](#))
- Merge pull request #1868 from python-gitlab/jlvillal/delete_label
fix: remove custom `delete` method for labels ([0ab0fc1](#))
- Merge pull request #1866 from python-gitlab/jlvillal/arrays_2
chore: create new `ArrayAttribute` class ([7646360](#))

7.9.22 v3.1.1 (2022-01-28)

Chore

- chore: use dataclass for `RequiredOptional` ([30117a3](#))
- chore: remove redundant list comprehension ([271cf3d3](#))
- chore: consistently use `open()` encoding and file descriptor ([dc32d54](#))
- chore: don't explicitly pass args to `super()` ([618267c](#))
- chore: always use context manager for file IO ([e8031f4](#))
- chore: remove old-style classes ([ae2a015](#))
- chore: rename `types.ListAttribute` to `types.CommaSeparatedListAttribute`

This name more accurately describes what the type is. Also this is the first step in a series of steps of our goal to add full support for the GitLab API data types[1]:

- array
- hash
- array of hashes

[1] <https://docs.gitlab.com/ee/api/#encoding-api-parameters-of-array-and-hash-types> ([5127b15](#))

- chore: rename `gitlab/__version__.py` -> `gitlab/_version.py`

It is confusing to have a `gitlab/__version__.py` because we also create a variable `gitlab.__version__` which can conflict with `gitlab/__version__.py`.

For example in `gitlab/const.py` we have to know that `gitlab.__version__` is a module and not the variable due to the ordering of imports. But in most other usage `gitlab.__version__` is a version string.

To reduce confusion make the name of the version file `gitlab/_version.py`. ([b981ce7](#))

- chore: create return type-hints for `get_id()` & `encoded_id`

Create return type-hints for `RESTObject.get_id()` and `RESTObject.encoded_id`. Previously was saying they return Any. Be more precise in saying they can return either: None, str, or int. ([@c3a1d1](#))

- chore(tests): use method `projects.transfer()`

When doing the functional tests use the new function `projects.transfer` instead of the deprecated function `projects.transfer_project()` ([e5af2a7](#))

Documentation

- docs: enhance release docs for CI_JOB_TOKEN usage ([5d973de](#))
- docs(changelog): add missing changelog items ([@1755fb](#))

Fix

- fix(cli): make ‘per_page’ and ‘page’ type explicit ([d493a5e](#))
- fix(cli): make ‘timeout’ type explicit ([bbb7df5](#))
- fix(cli): allow custom methods in managers ([8dfed0c](#))
- fix(objects): make resource access tokens and repos available in CLI ([e0a3a41](#))

Style

- style: use f-strings where applicable ([cfed622](#))
- style: use literals to declare data structures ([@19a40f](#))

Test

- test: add a meta test to make sure that v4/objects/ files are imported

Add a test to make sure that all of the `gitlab/v4/objects/` files are imported in `gitlab/v4/objects/__init__.py` ([9c8c804](#))

- test: convert usage of `match_querystring` to `match`

In the `responses` library the usage of `match_querystring` is deprecated. Convert to using `match` ([d16e41b](#))

- test: remove usage of `httpmock` library

Convert all usage of the `httpmock` library to using the `responses` library. ([5254f19](#))

- test: use ‘responses’ in `test_mixins_methods.py`

Convert from `httmock` to `responses` in `test_mixins_methods.py`

This leaves only one file left to convert ([208da04](#))

Unknown

- Merge pull request #1862 from thomasgl-orange/cli-fix-timeout
fix(cli): make ‘timeout’, ‘per_page’ and ‘page’ type explicit ([3fb4486](#))
- Merge pull request #1858 from python-gitlab/jlvillal/attribute_rename
chore: rename `types.ListAttribute` to `types.CommaSeparatedListAttribute` ([39e7435](#))
- Merge pull request #1848 from python-gitlab/jlvillal/objects_imported
test: add a meta test to make sure that v4/objects/ files are imported ([07539c9](#))
- Merge pull request #1854 from MRigal/docs/small-releases-additions
Enhance releases API docs for CI_JOB_TOKEN usage ([ff04900](#))
- Merge pull request #1845 from python-gitlab/jlvillal/rm_httmock
Remove usage of httmock and clean up deprecations ([ff4b1cc](#))
- Merge pull request #1838 from python-gitlab/jlvillal/version_mv
chore: rename `gitlab/__version__.py` to `gitlab/_version.py` ([8af403c](#))
- Merge pull request #1843 from python-gitlab/jlvillal/rm_httmock
test: use ‘responses’ in `test_mixins_methods.py` ([fe14dd5](#))
- Merge pull request #1841 from python-gitlab/jlvillal/get_id
chore: create return type-hints for `get_id()` & `encoded_id` ([1ac982a](#))
- Merge pull request #1840 from python-gitlab/docs/missing-changelog-items
docs(changelog): add missing changelog items ([a1dbe86](#))
- Merge pull request #1839 from python-gitlab/jlvillal/catch_warnings
chore(tests): use method `projects.transfer()` ([48b06a9](#))

7.9.23 v3.1.0 (2022-01-14)

Chore

- chore(groups): use `encoded_id` for group path ([868f243](#))
- chore(objects): use `self.encoded_id` where applicable

Updated a few remaining usages of `self.id` to use `self.encoded_id` as for the most part we shouldn’t be using `self.id`

There are now only a few (4 lines of code) remaining uses of `self.id`, most of which seem that they should stay that way. ([75758bf](#))

- chore(objects): use `self.encoded_id` where could be a string

Updated a few remaining usages of `self.id` to use `self.encoded_id` where it could be a string value. ([c3c3a91](#))

- chore(projects): fix typing for transfer method

Co-authored-by: John Villalovos <john@sodarock.com> ([0788fe6](#))

- chore: ignore intermediate coverage artifacts ([110ae91](#))
- chore: replace usage of `utils._url_encode()` with `utils.EncodedId()`

utils.EncodedId() has basically the same functionality of using utils._url_encode(). So remove utils._url_encode() as we don't need it. ([b07eece](#))

- chore: add EncodedId string class to use to hold URL-encoded paths

Add EncodedId string class. This class returns a URL-encoded string but ensures it will only URL-encode it once even if recursively called.

Also added some functional tests of ‘lazy’ objects to make sure they work. ([a2e7c38](#))

- chore: add pprint() and pformat() methods to RESTObject

This is useful in debugging and testing. As can easily print out the values from an instance in a more human-readable form. ([d69ba04](#))

- chore: add logging to `tests/functional/conftest.py`

I have found trying to debug issues in the functional tests can be difficult. Especially when trying to figure out failures in the CI running on Github.

Add logging to `tests/functional/conftest.py` to have a better understanding of what is happening during a test run which is useful when trying to troubleshoot issues in the CI. ([a1ac9ae](#))

- chore(docs): use admonitions consistently ([55c67d1](#))
- chore: fix functional test failure if config present

Previously c8256a5933d745f70c7eea0a7d6230b51bac0fbc was done to fix this but it missed two other failures. ([c9ed3dd](#))

- chore: fix missing comma

There was a missing comma which meant the strings were concatenated instead of being two separate strings. ([7c59fac](#))

- chore(dist): add docs *.md files to sdist

build_sphinx to fail due to setup.cfg warning-is-error ([d9457d8](#))

- chore: add a stale workflow

Use the stale action to close issues and pull-requests with no activity.

Issues: It will mark them as stale after 60 days and then close them once they have been stale for 15 days.

Pull-Requests: It will mark pull-requests as stale after 90 days and then close them once they have been stale for 15 days.

<https://github.com/actions/stale>

Closes: #1649 ([2c036a9](#))

- chore: add temporary banner for v3 ([a349793](#))

Ci

- ci: don't fail CI if unable to upload the code coverage data

If a CI job can't upload coverage results to codecov.com it causes the CI to fail and code can't be merged. ([d5b3744](#))

Documentation

- docs: update project access token API reference link ([73ae955](#))
- docs(cli): make examples more easily navigable by generating TOC ([f33c523](#))

Feature

- feat: add support for Groups API method `transfer()` ([0007006](#))
- feat(api): add `project.transfer()` and deprecate `transfer_project()` ([259668a](#))
- feat(api): return result from `SaveMixin.save()`

Return the new object data when calling `SaveMixin.save()`.

Also remove check for `None` value when calling `self.manager.update()` as that method only returns a dictionary.

Closes: #1081 ([e6258a4](#))

- feat: add support for Group Access Token API

See https://docs.gitlab.com/ee/api/group_access_tokens.html ([c01b7c4](#))

Fix

- fix(cli): add missing list filters for environments ([6f64d40](#))
- fix: use url-encoded ID in all paths

Make sure all usage of the ID in the URL path is encoded. Normally it isn't an issue as most IDs are integers or strings which don't contain a slash ('/'). But when the ID is a string with a slash character it will break things.

Add a test case that shows this fixes wikis issue with subpages which use the slash character.

Closes: #1079 ([12435d7](#))

- fix(members): use new `*All` objects for `*AllManager` managers

Change it so that:

`GroupMemberAllManager` uses `GroupMemberAll` object `ProjectMemberAllManager` uses `ProjectMemberAll` object

Create `GroupMemberAll` and `ProjectMemberAll` objects that do not support any Mixin type methods. Previously we were using `GroupMember` and `ProjectMember` which support the `save()` and `delete()` methods but those methods will not work with objects retrieved using the `/members/all/` API calls.

`list()` API calls: [1] GET `/groups/:id/members/all` GET `/projects/:id/members/all`

`get()` API calls: [2] GET `/groups/:id/members/all/:user_id` GET `/projects/:id/members/all/:user_id`

Closes: #1825 Closes: #848

[1] <https://docs.gitlab.com/ee/api/members.html#list-all-members-of-a-group-or-project-including-inherited-and-invited-members> [2] <https://docs.gitlab.com/ee/api/members.html#get-a-member-of-a-group-or-project-including-inherited-and-invited-members> ([755e0a3](#))

- fix(api): services: add missing `lazy` parameter

Commit 8da0b758c589f608a6ae4eeb74b3f306609ba36d added the `lazy` parameter to the services `get()` method but missed then using the `lazy` parameter when it called `super(...).get(...)`

Closes: #1828 ([888f332](#))

- fix: broken URL for FAQ about attribute-error-list

The URL was missing a ‘v’ before the version number and thus the page did not exist.

Previously the URL for python-gitlab 3.0.0 was: <https://python-gitlab.readthedocs.io/en/3.0.0/faq.html#attribute-error-list>

Which does not exist.

Change it to: <https://python-gitlab.readthedocs.io/en/v3.0.0/faq.html#attribute-error-list> add the ‘v’
_____^ (1863f30)

- fix: remove custom URL encoding

We were using `str.replace()` calls to take care of URL encoding issues.

Switch them to use our `utils._url_encode()` function which itself uses `urllib.parse.quote()`

Closes: #1356 (3d49e5e)

- fix: remove default arguments for `mergerequests.merge()`

The arguments `should_remove_source_branch` and `merge_when_pipeline_succeeds` are optional arguments. We should not be setting any default value for them.

https://docs.gitlab.com/ee/api/merge_requests.html#accept-mr

Closes: #1750 (8e589c4)

- fix(cli): url-encode path components of the URL

In the CLI we need to make sure the components put into the path portion of the URL are url-encoded. Otherwise they will be interpreted as part of the path. For example can specify the project ID as a path, but in the URL it must be url-encoded or it doesn’t work.

Also stop adding the components of the path as query parameters in the URL.

Closes: #783 Closes: #1498 ([ac1c619](#))

- fix: change to `http_list` for some ProjectCommit methods

Fix the type-hints and use `http_list()` for the ProjectCommits methods:

- `diff()`
- `merge_requests()`
- `refs()`

This will enable using the pagination support we have for lists.

Closes: #1805 Closes: #1231 ([497e860](#))

Test

- `test(groups): enable group transfer tests` ([57bb67a](#))

Unknown

- Merge pull request #1836 from python-gitlab/jlvillal/id_to_encodedid
chore(objects): use `self.encoded_id` where applicable ([2c62d91](#))
- Merge pull request #1835 from python-gitlab/jlvillal/id_to_encodedid
chore(objects): use `self.encoded_id` where could be a string ([34110dd](#))
- Merge pull request #1832 from python-gitlab/jlvillal/return_save
feat(api): return result from `SaveMixin.save()` ([27e0742](#))
- Merge pull request #1834 from python-gitlab/jlvillal/cover_no_fail
ci: don't fail CI if unable to upload the code coverage data ([da30753](#))
- Merge pull request #1831 from python-gitlab/chore/ignore-coverage
chore: ignore intermediate coverage artifacts ([8b14ff0](#))
- Merge pull request #1819 from python-gitlab/jlvillal/encoded_id
fix: use url-encoded ID in all paths ([bc48840](#))
- Merge pull request #1827 from python-gitlab/jlvillal/all_objects
fix: members: use new *All objects for *AllManager managers ([58e5b25](#))
- Merge pull request #1829 from python-gitlab/jlvillal/lazy_service
fix(api): services: add missing `lazy` parameter ([824151c](#))
- Merge pull request #1823 from python-gitlab/jlvillal/fix_url
fix: broken URL for FAQ about attribute-error-list ([4a000b6](#))
- Merge pull request #1812 from python-gitlab/jlvillal/pprint
chore: add `pprint()` and `pformat()` methods to RESTObject ([bdc19b1](#))
- Merge pull request #1786 from python-gitlab/jlvillal/logging
test: add logging to `tests/functional/conftest.py` ([ac81272](#))
- Merge pull request #1816 from python-gitlab/jlvillal/remove_replace
fix: remove custom URL encoding ([24d2766](#))
- Merge pull request #1818 from python-gitlab/jlvillal/merge_request_merge_defaults
fix: remove default arguments for `mergerequests.merge()` ([0dba899](#))
- Merge pull request #1790 from python-gitlab/jlvillal/parent_attrs
fix(cli): url-encode path components of the URL ([22a1516](#))
- Merge pull request #1809 from python-gitlab/jlvillal/list_api
fix: change to `http_list` for some ProjectCommit methods ([d45b59e](#))
- Merge pull request #1813 from derekschrock/missing-dist
chore(dist): add docs *.md files to sdist ([4861883](#))
- Merge pull request #1814 from python-gitlab/jlvillal/missing_comma
chore: fix missing comma ([fd523b3](#))
- Merge pull request #1789 from python-gitlab/jlvillal/stale

chore: add a stale workflow (9896340)

- Merge pull request #1803 from python-gitlab/jlvillal/test_1425

chore: add functional test of mergerequest.get() (bc6c6e6)

7.9.24 v3.0.0 (2022-01-05)

Breaking

- feat(cli): allow options from args and environment variables

BREAKING-CHANGE: The gitlab CLI will now accept CLI arguments and environment variables for its global options in addition to configuration file options. This may change behavior for some workflows such as running inside GitLab CI and with certain environment variables configured. (ca58008)

- fix: stop encoding ‘.’ to ‘%2E’

Forcing the encoding of ‘.’ to ‘%2E’ causes issues. It also goes against the RFC: <https://datatracker.ietf.org/doc/html/rfc3986.html#section-2.3>

From the RFC: For consistency, percent-encoded octets in the ranges of ALPHA (%41-%5A and %61-%7A), DIGIT (%30-%39), hyphen (%2D), period (%2E), underscore (%5F), or tilde (%7E) should not be created by URI producers...

Closes #1006 Related #1356 Related #1561

BREAKING CHANGE: stop encoding ‘.’ to ‘%2E’. This could potentially be a breaking change for users who have incorrectly configured GitLab servers which don’t handle period ‘.’ characters correctly. (702e41d)

- feat(cli): do not require config file to run CLI

BREAKING CHANGE: A config file is no longer needed to run the CLI. python-gitlab will default to https://gitlab.com with no authentication if there is no config file provided. python-gitlab will now also only look for configuration in the provided PYTHON_GITLAB_CFG path, instead of merging it with user- and system-wide config files. If the environment variable is defined and the file cannot be opened, python-gitlab will now explicitly fail. (92a893b)

- feat: remove support for Python 3.6, require 3.7 or higher

Python 3.6 is End-of-Life (EOL) as of 2021-12 as stated in <https://www.python.org/dev/peps/pep-0494/>

By dropping support for Python 3.6 and requiring Python 3.7 or higher it allows python-gitlab to take advantage of new features in Python 3.7, which are documented at: <https://docs.python.org/3/whatsnew/3.7.html>

Some of these new features that may be useful to python-gitlab are:

- PEP 563, postponed evaluation of type annotations.
- dataclasses: PEP 557 – Data Classes
- importlib.resources
- PEP 562, customization of access to module attributes.
- PEP 560, core support for typing module and generic types.
- PEP 565, improved DeprecationWarning handling

BREAKING CHANGE: As of python-gitlab 3.0.0, Python 3.6 is no longer supported. Python 3.7 or higher is required. (414009d)

- chore: rename master branch to main

BREAKING CHANGE: As of python-gitlab 3.0.0, the default branch for development has changed from `master` to `main`. (545f8ed)

- refactor(objects): remove deprecated branch protect methods

BREAKING CHANGE: remove deprecated branch protect methods in favor of the more complete protected branches API. ([9656a16](#))

- fix(api): replace deprecated attribute in delete_in_bulk() (#1536)

BREAKING CHANGE: The deprecated name_regex attribute has been removed in favor of name_regex_delete. (see <https://gitlab.com/gitlab-org/gitlab/-/commit/ce99813cf54>) ([c59fbdb](#))

- fix(objects): rename confusing to_project_id argument

BREAKING CHANGE: rename confusing to_project_id argument in transfer_project to project_id (--project-id in CLI). This is used for the source project, not for the target namespace. ([ce4bc0d](#))

- refactor(objects): remove deprecated constants defined in objects

BREAKING CHANGE: remove deprecated constants defined in gitlab.v4.objects, and use only gitlab.const module ([3f320af](#))

- refactor(objects): remove deprecated tag release API

BREAKING CHANGE: remove deprecated tag release API. This was removed in GitLab 14.0 ([2b8a94a](#))

- refactor(objects): remove deprecated project.issuesstatistics

BREAKING CHANGE: remove deprecated project.issuesstatistics in favor of project.issues_statistics ([ca7777e](#))

- refactor(objects): remove deprecated members.all() method

BREAKING CHANGE: remove deprecated members.all() method in favor of members_all.list() ([4d7b848](#))

- refactor(objects): remove deprecated pipelines() method

BREAKING CHANGE: remove deprecated pipelines() methods in favor of pipelines.list() ([c4f5ec6](#))

- feat: default to gitlab.com if no URL given

BREAKING CHANGE: python-gitlab will now default to gitlab.com if no URL is given ([8236281](#))

- fix!: raise error if there is a 301/302 redirection

Before we raised an error if there was a 301, 302 redirect but only from an http URL to an https URL. But we didn't raise an error for any other redirects.

This caused two problems:

1. PUT requests that are redirected get changed to GET requests which don't perform the desired action but raise no error. This is because the GET response succeeds but since it wasn't a PUT it doesn't update. See issue: <https://github.com/python-gitlab/python-gitlab/issues/1432>
2. POST requests that are redirected also got changed to GET requests. They also caused hard to debug tracebacks for the user. See issue: <https://github.com/python-gitlab/python-gitlab/issues/1477>

Correct this by always raising a RedirectError exception and improve the exception message to let them know what was redirected.

Closes: #1485 Closes: #1432 Closes: #1477 ([d56a434](#))

Chore

- chore: fix typo in MR documentation (2254222)
- chore: add functional test of mergerequest.get()

Add a functional test of test mergerequest.get() and mergerequest.get(..., lazy=True)

Closes: #1425 ([a92b55b](#))

- chore(deps): update dependency argcomplete to v2 ([c6d7e9a](#))
- chore(deps): update dependency requests to v2.27.0 ([f8c3d00](#))
- chore: add test case to show branch name with period works

Add a test case to show that a branch name with a period can be fetched with a get()

Closes: #1715 ([ea97d7a](#))

- chore(deps): update typing dependencies ([1f95613](#))
- chore(deps): update dependency mypy to v0.930 ([ccf8190](#))
- chore(deps): upgrade mypy pre-commit hook ([e19e4d7](#))
- chore: fix functional test failure if config present

Fix functional test failure if config present and configured with token.

Closes: #1791 ([c8256a5](#))

- chore: ensure reset_gitlab() succeeds

Ensure reset_gitlab() succeeds by waiting to make sure everything has been deleted as expected. If the timeout is exceeded fail the test.

Not using `wait_for_sidekiq` as it didn't work. During testing I didn't see any sidekiq processes as being busy even though not everything was deleted. ([@aa@b27](#))

- chore: skip a functional test if not using >= py3.9

One of the tests requires Python 3.9 or higher to run. Mark the test to be skipped if running Python less than 3.9. ([ac9b595](#))

- chore: update version in docker-compose.yml

When running with docker-compose on Ubuntu 20.04 I got the error:

```
$ docker-compose up
ERROR: The Compose file './docker-compose.yml' is invalid because: networks.gitlab-network value Additional properties are not allowed ('name' was unexpected)
```

Changing the version in the docker-compose.yml file from '3' to '3.5' resolved the issue. ([79321aa](#))

- chore: add and document optional parameters for get MR

Add and document (some of the) optional parameters that can be done for a `project.merge_requests.get()`

Closes #1775 ([bfa3dbe](#))

- chore: generate artifacts for the docs build in the CI

When building the docs store the created documentation as an artifact so that it can be viewed.

This will create a `html-docs.zip` file which can be downloaded containing the contents of the `build/sphinx/html/` directory. It can be downloaded, extracted, and then viewed. This can be useful in reviewing changes to the documentation.

See <https://github.com/actions/upload-artifact> for more information on how this works. ([85b43ae](#))

- chore(deps): update pre-commit hook pycqa/flake8 to v4 ([98a5592](#))
- chore(deps): update pre-commit hook psf/black to v21 ([b86e819](#))
- chore(deps): update pre-commit hook pycqa/isort to v5.10.1 ([8ac4f4a](#))
- chore: remove '# type: ignore' for new mypy version

mypy 0.920 now understands the type of 'http.client.HTTPConnection.debuglevel' so we remove the 'type: ignore' comment to make mypy pass ([34a5f22](#))

- chore(deps): update dependency mypy to v0.920 ([a519b2f](#))
- chore(deps): update pre-commit hook alessandrojcm/commitlint-pre-commit-hook to v6 ([fb9110b](#))
- chore(ci): enable renovate for pre-commit ([1ac4329](#))
- chore: fix unit test if config file exists locally

Closes #1764 ([c80b3b7](#))

- chore(deps): update dependency sphinx to v4.3.2 ([2210e56](#))
- chore: add .env as a file that search tools should not ignore

The .env file was not set as a file that should not be ignored by search tools. We want to have the search tools search any .env files. ([c9318a9](#))

- chore(deps): update dependency types-requests to v2.26.2 ([ac7e329](#))
- chore: add Python 3.11 testing

Add a unit test for Python 3.11. This will use the latest version of Python 3.11 that is available from <https://github.com/actions/python-versions/>

At this time it is 3.11.0-alpha.2 but will move forward over time until the final 3.11 release and updates. So 3.11.0, 3.11.1, ... will be matched. ([b5ec192](#))

- chore(api): temporarily remove topic delete endpoint

It is not yet available upstream. ([e3035a7](#))

- chore: fix renovate setup for gitlab docker image ([49af15b](#))
- chore: add get() methods for GetWithoutIdMixin based classes

Add the get() methods for the GetWithoutIdMixin based classes.

Update the tests/meta/test_ensure_type_hints.py tests to check to ensure that the get methods are defined with the correct return type. ([d27c50a](#))

- chore: github workflow: cancel prior running jobs on new push

If new new push is done to a pull-request, then cancel any already running github workflow jobs in order to conserve resources. ([fd81569](#))

- chore: fix pylint error "expression-not-assigned"

Fix pylint error "expression-not-assigned" and remove check from the disabled list.

And I personally think it is much more readable now and is less lines of code. ([a90eb23](#))

- chore: add running unit tests on windows/macOS

Add running the unit tests on windows-latest and macos-latest with Python 3.10. ([ad5d60c](#))

- chore: set pre-commit mypy args to empty list

<https://github.com/pre-commit/mirrors-mypy/blob/master/.pre-commit-hooks.yaml>

Sets some default args which seem to be interfering with things. Plus we set all of our args in the `pyproject.toml` file. ([b67a6ad](#))

- chore: run pre-commit on changes to the config file

If `.pre-commit-config.yaml` or `.github/workflows/pre_commit.yml` are updated then run pre-commit. ([5f10b3b](#))

- chore: add initial pylint check

Initial pylint check is added. A LONG list of disabled checks is also added. In the future we should work through the list and resolve the errors or disable them on a more granular level. ([041091f](#))

- chore: enable ‘warn_redundant_casts’ for mypy

Enable ‘warn_redundant_casts’ for mypy and resolve one issue. ([f40e9b3](#))

- chore: enable subset of the ‘mypy –strict’ options that work

Enable the subset of the ‘mypy –strict’ options that work with no changes to the code. ([a86d049](#))

- chore(deps): update dependency black to v21.12b0 ([ab841b8](#))
- chore: use constants from `gitlab.const` module

Have code use constants from the `gitlab.const` module instead of from the top-level `gitlab` module. ([6b8067e](#))

- chore: attempt to be more informative for missing attributes

A commonly reported issue from users on Gitter is that they get an `AttributeError` for an attribute that should be present. This is often caused due to the fact that they used the `list()` method to retrieve the object and objects retrieved this way often only have a subset of the full data.

Add more details in the `AttributeError` message that explains the situation to users. This will hopefully allow them to resolve the issue.

Update the FAQ in the docs to add a section discussing the issue.

Closes #1138 ([1839c9e](#))

- chore(docs): link to main, not master ([af0cb4d](#))
- chore(docs): use builtin autodoc hints ([5e9c943](#))
- chore(docs): load autodoc-typehints module ([bd366ab](#))
- chore(tests): apply review suggestions ([381c748](#))
- chore(deps): update dependency sphinx to v4.3.1 ([93a3893](#))
- chore: remove pytest-console-scripts specific config

Remove the `pytest-console-scripts` specific config from the global ‘[pytest]’ config section.

Use the command line option `--script-launch-mode=subprocess`

Closes #1713 ([e80dcbb](#))

- chore(deps): update typing dependencies ([8d4c953](#))
- chore: remove duplicate/no-op tests from `meta/test_ensure_type_hints`

Before we were generating 725 tests for the `meta/test_ensure_type_hints.py` tests. Which isn’t a huge concern as it was fairly fast. But when we had a failure we would usually get two failures for each problem as the same test was being run multiple times.

Changed it so that:

1. Don't add tests that are not for *Manager classes
2. Use a set so that we don't have duplicate tests.

After doing that our generated test count in `meta/test_ensure_type_hints.py` went from 725 to 178 tests.

Additionally removed the parsing of `pyproject.toml` to generate files to ignore as we have finished adding type-hints to all files in `gitlab/v4/objects/`. This also means we no longer use the `toml` library so remove installation of `types-toml`.

To determine the test count the following command was run: `$ tox -e py39 --k test_ensure_type_hints (a2f59f4)`

- chore(deps): update dependency `types-setuptools` to v57.4.3 ([ec2c68b](#))
- chore(deps): update dependency `black` to v21 ([5bca87c](#))
- chore: have renovate upgrade black version (#1700)

`renovate` is not upgrading the `black` package. There is an open issue[1] about this.

Also change `.commitlintrc.json` to allow 200 character footer lines in the commit message. Otherwise would be forced to split the URL across multiple lines making it un-clickable :(

Use suggested work-arounds from: <https://github.com/renovatebot/renovate/issues/7167#issuecomment-904106838>
<https://github.com/scop/bash-completion/blob/e7497f6ee8232065ec11450a52a1f244f345e2c6/renovate.json#L34-L38>

[1] [https://github.com/renovatebot/renovate/issues/7167 \(21228cd\)](https://github.com/renovatebot/renovate/issues/7167 (21228cd))

- chore: add type-hints to `gitlab/v4/objects/files.py` ([0c22bd9](#))
- chore: add type-hints to `gitlab/v4/objects/labels.py` ([d04e557](#))
- chore: add type-hints to `gitlab/v4/objects/sidekiq.py` ([a91a303](#))
- chore: add type-hints to `gitlab/v4/objects/services.py` ([8da0b75](#))
- chore: add type-hints to `gitlab/v4/objects/repositories.py` ([00d7b20](#))
- chore: add type-hints to `gitlab/v4/objects/pipelines.py` ([cb3ad6c](#))
- chore: add type-hints to `gitlab/v4/objects/milestones.py` ([8b6078f](#))
- chore: add type-hints to `gitlab/v4/objects/jobs.py` ([e8884f2](#))
- chore: add type-hints to `gitlab/v4/objects/issues.py` ([93e39a2](#))
- chore: add type-hints to `gitlab/v4/objects/geo_nodes.py` ([13243b7](#))
- chore: add type-hints to `gitlab/v4/objects/epics.py` ([d4adf8d](#))
- chore: fix issue with adding type-hints to 'manager' attribute

When attempting to add type-hints to the the 'manager' attribute into a RESTObject derived class it would break things.

This was because our auto-manager creation code would automatically add the specified annotated manager to the 'manager' attribute. This breaks things.

Now check in our auto-manager creation if our attribute is called 'manager'. If so we ignore it. ([9a451a8](#))

- chore: correct `test_groups.py` test

The test was checking twice if the same group3 was not in the returned list. Should have been checking for group3 and group4.

Also added a test that only skipped one group and checked that the group was not in the returned list and a non-skipped group was in the list. ([9c878a4](#))

- chore: add type-hints to `gitlab/v4/objects/merge_request_approvals.py` ([cf3a99a](#))

- chore: enable mypy for tests/meta/* ([ba7707f](#))
- chore: check setup.py with mypy

Prior commit 06184daaf5010ba40bb39a0768540b7e98bd171 fixed the type-hints for setup.py. But missed removing ‘setup’ from the exclude list in pyproject.toml for mypy checks.

Remove ‘setup’ from the exclude list in pyproject.toml from mypy checks. ([77cb7a8](#))

- chore: ensure get() methods have correct type-hints

Fix classes which don’t have correct ‘get()’ methods for classes derived from GetMixin.

Add a unit test which verifies that classes have the correct return type in their ‘get()’ method. ([46773a8](#))

- chore: create a ‘tests/meta/’ directory and put test_mro.py in it

The ‘test_mro.py’ file is not really a unit test but more of a ‘meta’ check on the validity of the code base. ([94feb8a](#))

- chore: add type-hints to setup.py and check with mypy ([06184da](#))
- chore: add type-hints to gitlab/v4/objects/snippets.py ([f256d4f](#))
- chore(deps): update dependency types-pyyaml to v6.0.1 ([a544cd5](#))
- chore(deps): update dependency sphinx to v4.3.0 ([57283fc](#))
- chore(deps): update dependency types-requests to v2.26.0 ([7528d84](#))
- chore(deps): update dependency isort to v5.10.1 ([2012975](#))
- chore(deps): update dependency types-requests to v2.25.12 ([205ad5f](#))
- chore: enforce type-hints on most files in gitlab/v4/objects/
 - Add type-hints to some of the files in gitlab/v4/objects/
 - Fix issues detected when adding type-hints
 - Changed mypy exclusion to explicitly list the 13 files that have not yet had type-hints added. ([7828ba2](#))
- chore: add type hints for gitlab/v4/objects/commits.py ([dc096a2](#))
- chore(ci): add workflow to lock old issues ([a7d64fe](#))
- chore: add type-hints to multiple files in gitlab/v4/objects/

Add and/or check type-hints for the following files gitlab.v4.objects.access_requests gitlab.v4.objects.applications gitlab.v4.objects.broadcast_messages gitlab.v4.objects.deployments gitlab.v4.objects.keys gitlab.v4.objects.merge_trains gitlab.v4.objects.namespaces gitlab.v4.objects.pages gitlab.v4.objects.personal_access_tokens gitlab.v4.objects.project_access_tokens gitlab.v4.objects.tags gitlab.v4.objects.templates gitlab.v4.objects.triggers

Add a ‘get’ method with the correct type for Managers derived from GetMixin. ([8b75a77](#))

- chore: add type-hints to gitlab/v4/objects/groups.py
- Add type-hints to gitlab/v4/objects/groups.py
- Have share() function update object attributes.
- Add ‘get()’ method so that type-checkers will understand that getting a group is of type Group. ([94dcb06](#))
- chore: add type-hints to gitlab/v4/objects/merge_requests.py
- Add type-hints to gitlab/v4/objects/merge_requests.py
- Add return value to cancel_merge_when_pipeline_succeeds() function as GitLab docs show it returns a value.
- Add return value to approve() function as GitLab docs show it returns a value.

- Add ‘get()’ method so that type-checkers will understand that getting a project merge request is of type Project-MergeRequest. ([f9c0ad9](#))
- chore(deps): update dependency isort to v5.10.0 ([ae62468](#))
- chore(ci): wait for all coverage jobs before posting comment ([c7fdad4](#))
- chore(deps): update dependency types-pyyaml to v6 ([0b53c0a](#))
- chore(deps): update typing dependencies ([4170dbe](#))
- chore(deps): update dependency flake8 to v4 ([79785f0](#))
- chore(deps): update typing dependencies ([4eb8ec8](#))
- chore(deps): upgrade gitlab-ce to 14.3.2-ce.0 ([5a1678f](#))
- chore(objects): remove non-existing trigger ownership method ([8dc7f40](#))
- chore(deps): update dependency types-requests to v2.25.9 ([e3912ca](#))
- chore: fix type-check issue shown by new requests-types

types-requests==2.25.9 changed a type-hint. Update code to handle this change. ([0ee9aa4](#))

- chore(deps): update dependency sphinx to v4 ([73745f7](#))
- chore(deps): update python docker tag to v3.10 ([b3d6d91](#))
- chore: clean up install docs ([a5d8b7f](#))
- chore: attempt to fix flaky functional test

Add an additional check to attempt to solve the flakiness of the `test_merge_request_should_remove_source_branch()` test. ([487b9a8](#))

- chore: convert to using type-annotations for managers

Convert our manager usage to be done via type annotations.

Now to define a manager to be used in a RESTObject subclass can simply do: `class ExampleClass(CRUDMixin, RESTObject): my_manager: MyManager`

Any type-annotation that annotates it to be of type `*Manager` (with the exception of RESTManager) will cause the manager to be created on the object. ([d8de4dc](#))

- chore: add type-hints to `gitlab/v4/objects/users.py`

Adding type-hints to `gitlab/v4/objects/users.py` ([88988e3](#))

- chore: improve type-hinting for managers

The ‘managers’ are dynamically created. This unfortunately means that we don’t have any type-hints for them and so editors which understand type-hints won’t know that they are valid attributes.

- Add the type-hints for the managers we define.
- Add a unit test that makes sure that the type-hints and the ‘_managers’ attribute are kept in sync with each other.
- Add unit test that makes sure specified managers in ‘_managers’ have a name ending in ‘Managers’ to keep with current convention.
- Make RESTObject._managers always present with a default value of None.
- Fix a type-issue revealed now that mypy knows what the type is ([c9b5d3b](#))
- chore(deps): update dependency types-pyyaml to v5.4.10 ([bdb6cb9](#))

Documentation

- docs: switch to Furo and refresh introduction pages ([ee6b024](#))
- docs: correct documentation for updating discussion note

Closes #1777 ([ee66f4a](#))

- docs: rename documentation files to match names of code files

Rename the merge request related documentation files to match the code files. This will make it easier to find the documentation quickly.

Rename: `docs/gl_objects/mrs.rst` -> `docs/gl_objects/merge_requests.rst`
`docs/gl_objects/mr_approvals.rst` -> `docs/gl_objects/merge_request_approvals.rst` ([ee3f865](#))

- docs(project): remove redundant encoding parameter ([fed613f](#))
- docs: use annotations for return types ([79e785e](#))
- docs: update docs to use gitlab.const for constants

Update the docs to use gitlab.const to access constants. ([b3b0b5f](#))

- docs: only use type annotations for documentation ([b7dde0d](#))
- docs: add links to the GitLab API docs

Add links to the GitLab API docs for merge_requests.py as it contains code which spans two different API documentation pages. ([e3b5d27](#))

- docs: fix API delete key example ([b31bb05](#))
- docs(pipelines): document take_ownership method ([69461f6](#))
- docs(api): document the update method for project variables ([7992911](#))
- docs(api): clarify job token usage with auth()

See issue #1620 ([3f423ef](#))

- docs: fix a few typos

There are small typos in:

- `docs/gl_objects/deploy_tokens.rst`
- `gitlab/base.py`
- `gitlab/mixins.py`
- `gitlab/v4/objects/features.py`
- `gitlab/v4/objects/groups.py`
- `gitlab/v4/objects/packages.py`
- `gitlab/v4/objects/projects.py`
- `gitlab/v4/objects/sidekiq.py`
- `gitlab/v4/objects/todos.py`

Fixes:

- Should read `treatment` rather than `reament`.
- Should read `transferred` rather than `transfered`.
- Should read `registered` rather than `registred`.

- Should read `occurred` rather than `occured`.
- Should read `overridden` rather than `overriden`.
- Should read `marked` rather than `maked`.
- Should read `instantiate` rather than `instanciate`.
- Should read `function` rather than `fonction`. ([7ea4ddc](#))
- docs: consolidate changelogs and remove v3 API docs ([90da8ba](#))
- docs: correct documented return type

`repository_archive()` returns ‘bytes’ not ‘str’

<https://docs.gitlab.com/ee/api/repositories.html#get-file-archive>

Fixes: #1584 ([acabf63](#))

Feature

- `feat(docker)`: remove custom entrypoint from image

This is no longer needed as all of the configuration is handled by the CLI and can be passed as arguments. ([80754a1](#))

- `feat(api)`: support file format for repository archive ([83dcabf](#))
- `feat`: add support for `squash_option` in Projects

There is an optional `squash_option` parameter which can be used when creating Projects and UserProjects.

Closes #1744 ([a246ce8](#))

- `feat(api)`: add support for Topics API ([e7559bf](#))
- `feat`: add delete on `package_file` object ([124667b](#))
- `feat`: add support for `projects.groups.list()`

Add support for `projects.groups.list()` endpoint.

Closes #1717 ([68ff595](#))

- `feat(api)`: add support for epic notes

Added support for notes on group epics

Signed-off-by: Raimund Hook <raimund.hook@exfo.com> ([7f4edb5](#))

- `feat(api)`: add project milestone promotion

Adds promotion to Project Milestones

Signed-off-by: Raimund Hook <raimund.hook@exfo.com> ([f068520](#))

- `feat(api)`: add merge trains

Add support for merge trains ([fd73a73](#))

- `feat(api)`: add merge request approval state

Add support for merge request approval state ([f41b093](#))

- `feat(api)`: add project label promotion

Adds a mixin that allows the `/promote` endpoint to be called.

Signed-off-by: Raimund Hook <raimund.hook@exfo.com> ([6d7c88a](#))

- feat(objects): support delete package files API ([4518046](#))
- feat(objects): list starred projects of a user ([47a5606](#))
- feat(build): officially support and test python 3.10 ([c042ddc](#))
- feat(objects): support Create and Revoke personal access token API ([e19314d](#))
- feat: allow global retry_transient_errors setup

`retry_transient_errors` can now be set through the Gitlab instance and global configuration

Documentation for API usage has been updated and missing tests have been added. ([3b1d3a4](#))

Fix

- fix: handle situation where GitLab does not return values

If a query returns more than 10,000 records than the following values are NOT returned: `x.total_pages` `x.total`

Modify the code to allow no value to be set for these values. If there is not a value returned the functions will now return None.

Update unit test so no longer `xfail`

https://docs.gitlab.com/ee/user/gitlab_com/index.html#pagination-response-headers

Closes #1686 ([cb824a4](#))

- fix(build): do not include docs in wheel package ([68a97ce](#))
- fix(api): delete invalid ‘project-runner get’ command (#1628)
- fix(api): delete ‘group-runner get’ and ‘group-runner delete’ commands

Co-authored-by: Léo GATELLIER <git@leogatellier.fr> ([905781b](#))

- fix(build): do not package tests in wheel ([969dccc](#))

Refactor

- refactor: deprecate accessing constants from top-level namespace

We are planning on adding enumerated constants into `gitlab/const.py`, but if we do that than they will end up being added to the top-level `gitlab` namespace. We really want to get users to start using `gitlab.const.` to access the constant values in the future.

Add the currently defined constants to a list that should not change. Use a module level `getattr` function so that we can deprecate access to the top-level constants.

Add a unit test which verifies we generate a warning when accessing the top-level constants. ([c0aa0e1](#))

- refactor: use new-style formatting for named placeholders ([c0d8810](#))
- refactor: use f-strings for string formatting ([7925c90](#))

Test

- test: reproduce missing pagination headers in tests (501f9a1)
- test: drop httmock dependency in test_gitlab.py (c764bee)
- test(api): fix current user mail count in newer gitlab (af33aff)
- test(cli): improve basic CLI coverage (6b892e3)
- test(build): add smoke tests for sdist & wheel package (b8a47ba)

Unknown

- Merge pull request #1804 from mlegner/patch-1
- chore: fix typo in MR documentation (1582387)
- Merge pull request #1800 from python-gitlab/jl villal/dot_branch
- chore: add test case to show branch name with period works (896a8c7)
- Merge pull request #1799 from python-gitlab/renovate/mypy-0.x
- chore(deps): update dependency mypy to v0.930 (2323a7c)
- Merge pull request #1792 from python-gitlab/jl villal/cli_test
- chore: fix functional test failure if config present (2ac2a68)
- Merge pull request #1773 from python-gitlab/jl villal/pagination
- fix: handle situation where gitlab.com does not return values (a3eafab)
- Merge pull request #1783 from python-gitlab/jl villal/sidekiq
- chore: ensure reset_gitlab() succeeds (f26bf7d)
- Merge pull request #1782 from python-gitlab/jl villal/repository_func_tests
- chore: skip a functional test if not using >= py3.9 (d65ce36)
- Merge pull request #1781 from python-gitlab/jl villal/docker_compose
- chore: update version in docker-compose.yml (171df89)
- Merge pull request #1774 from python-gitlab/jl villal/doc_artifacts
- chore: generate artifacts for the docs build in the CI (3cb2352)
- Merge pull request #1776 from python-gitlab/jl villal/rebase_in_progress
- Add some docs for getting the status of a merge_request rebase (e7d4d91)
- Merge pull request #1766 from python-gitlab/jl villal/leave_dot
- fix: stop encoding ‘.’ to ‘%2E’ (eef8059)
- Merge pull request #1770 from python-gitlab/renovate/alessandrojcm-commitlint-pre-commit-hook-6.x
- chore(deps): update pre-commit hook alessandrojcm/commitlint-pre-commit-hook to v6 (182ab92)
- Merge pull request #1753 from python-gitlab/renovate/mypy-0.x
- chore(deps): update dependency mypy to v0.920 (5ea5392)
- Merge pull request #1765 from python-gitlab/jl villal/unit_test_config
- chore: fix unit test if config file exists locally (ccefe80)

- Merge pull request #1757 from python-gitlab/jlvillal/gitignore
chore: add .env as a file that search tools should not ignore ([3ee061c](#))
- Merge pull request #1746 from python-gitlab/jlvillal/squash_option
feat: add support for `squash_option` in Projects ([7799cb9](#))
 - Merge pull request #1743 from python-gitlab/feat/cli-without-config-file
feat(cli): do not require config file to run CLI ([170a4d9](#))
- Merge pull request #1742 from python-gitlab/jlvillal/py311_alpha
chore: add Python 3.11 testing ([74d4e4b](#))
 - Merge pull request #1710 from python-gitlab/jlvillal/get_without_id
chore: add get() methods for GetWithoutIdMixin based classes ([ac5defa](#))
 - Merge pull request #1733 from simonisateur/fix-package-file-delete
feat: package file delete on package file object ([2f37ccb](#))
 - Merge pull request #1736 from python-gitlab/jlvillal/workflow
chore: github workflow: cancel prior running jobs on new push ([4945353](#))
 - Merge pull request #1726 from python-gitlab/jlvillal/windows
chore: add running unit tests on windows/macos ([83f36d6](#))
 - Merge pull request #1738 from python-gitlab/jlvillal/pylint_fixes
chore: fix pylint error “expression-not-assigned” ([3679591](#))
 - Merge pull request #1729 from python-gitlab/jlvillal/pylint
chore: add initial pylint check ([3a7d6f6](#))
 - Merge pull request #1727 from python-gitlab/jlvillal/mypy_strict_two_steps
Enable more strict mypy checking ([1c33080](#))
- Merge pull request #1709 from python-gitlab/docs/sphinx-annotations
docs: only use type annotations for documentation ([2708f91](#))
 - Merge pull request #1702 from python-gitlab/jlvillal/attribute_help
chore: attempt to be more informative for missing attributes ([387e59f](#))
 - Merge pull request #1694 from python-gitlab/jlvillal/const_explicit
refactor: explicitly import gitlab.const values into top-level namespace ([e6582a3](#))
 - Merge pull request #1721 from python-gitlab/test/cli-coverage
test(cli): improve basic CLI coverage ([09a973e](#))
- Merge pull request #1714 from python-gitlab/jlvillal/pytest_script_launch_mode
chore: remove pytest-console-scripts specific config ([1badfeb](#))
 - Merge pull request #1712 from StingRayZA/Epicnotes
feat(api): add support for epic notes ([70b9870](#))
 - Merge pull request #1718 from python-gitlab/jlvillal/project_groups
feat: add support for `projects.groups.list()` ([64f2360](#))

- Merge pull request #1707 from python-gitlab/jl villal/reduce_meta_tests

chore: remove duplicate/no-op tests from meta/test_ensure_type_hints ([3225f2c](#))

- Merge pull request #1695 from python-gitlab/jl villal/mypy_epics

chore: add type-hints to remaining gitlab/v4/objects/*.py files ([7ba5995](#))

- Merge pull request #1705 from python-gitlab/jl villal/drop_py_36

feat: remove support for Python 3.6, require 3.7 or higher ([a390ec3](#))

- Merge pull request #1693 from python-gitlab/jl villay/mypy_test_meta

chore: enable mypy for tests/meta/* ([9b78c10](#))

- Merge pull request #1701 from python-gitlab/jl villal/func_test

chore: correct test_groups.py test ([178ec1a](#))

- Merge pull request #1696 from python-gitlab/jl villal/mypy_merge_request_approvals

chore: add type-hints to gitlab/v4/objects/merge_request_approvals.py ([2cd15ac](#))

- Merge pull request #1692 from python-gitlab/jl villal/mypy_setup

chore: check setup.py with mypy ([500895a](#))

- Merge pull request #1681 from python-gitlab/jl villal/mypy_ensure_type_hints

Ensure get() methods have correct type-hints ([0951989](#))

- Merge pull request #1683 from python-gitlab/jl villal/mypy_setup

chore: add type-hints to setup.py and check with mypy ([a553ee7](#))

- Merge pull request #1691 from python-gitlab/jl villal/mypy_snippets

chore: add type-hints to gitlab/v4/objects/snippets.py ([f775668](#))

- Merge pull request #1680 from python-gitlab/jl villal/mypy_small_files_1

chore: enforce type-hints on most files in gitlab/v4/objects/ ([472b300](#))

- Merge pull request #1678 from python-gitlab/jl villal/mypy_commits

chore: add type hints for gitlab/v4/objects/commits.py ([9a2f54c](#))

- Merge pull request #1677 from python-gitlab/chore/ci-lock-threads

chore(ci): add workflow to lock old issues ([0e6fb5e](#))

- Merge pull request #1674 from python-gitlab/jl villal/mypy_small_files_1

chore: add type-hints to multiple files in gitlab/v4/objects/ ([cf801d8](#))

- Merge pull request #1668 from python-gitlab/jl villal/mypy_groups

chore: add type-hints to gitlab/v4/objects/groups.py ([f3688dc](#))

- Merge pull request #1673 from python-gitlab/jl villal/mypy_merge_requests

chore: add type-hints to gitlab/v4/objects/merge_requests.py ([32ea954](#))

- Merge pull request #1670 from python-gitlab/jl villal/merge_requests_api

docs: add links to the GitLab API docs ([4ab9e92](#))

- Merge pull request #1665 from python-gitlab/renovate/isort-5.x

chore(deps): update dependency isort to v5.10.0 ([f51d9be](#))

- Merge pull request #1646 from JacobHenner/add-merge-trains

feat(api): add merge trains ([ed88bce](#))

- Merge pull request #1655 from StingRayZA/add-milestone-promote

feat(api): add project milestone promotion ([5ce3b17](#))

- Merge pull request #1641 from JacobHenner/add-merge-request-approval-state

feat(api): add merge request approval state ([422309f](#))

- Merge pull request #1610 from StingRayZA/add-label-promote

feat(api): add project label promotion ([853d850](#))

- Merge pull request #1629 from python-gitlab/chore/master-to-main

chore: rename `master` branch to `main` ([63b2070](#))

- Merge pull request #1616 from lmmx/patch-1

Document the `update` method for project variables ([e851eed](#))

- Merge pull request #1624 from axl89/docs-clarification

Clarified CI Job Token auth() caveats ([49fae96](#))

- Merge pull request #1515 from JohnVillalovos/jlvillal/mypy_v4_obj_users

chore: add type-hints to `gitlab/v4/objects/users.py` ([7753fa2](#))

- Merge pull request #1621 from JohnVillalovos/jlvillal/mypy_dep

chore: fix type-check issue shown by new `requests-types` ([e93f84b](#))

- Merge pull request #1619 from python-gitlab/renovate/python-3.x

chore(deps): update python docker tag to v3.10 ([d97f79d](#))

- Merge pull request #1617 from python-gitlab/feat/support-3.10

feat(build): officially support and test python 3.10 ([5c17c36](#))

- Merge pull request #1450 from python-gitlab/renovate/sphinx-4.x

chore(deps): update dependency `sphinx` to v4 ([6ce56c2](#))

- Merge pull request #1603 from timgates42/bugfix_typos

docs: fix a few typos ([227607c](#))

- Merge pull request #1486 from JohnVillalovos/jlvillal/prohibit_redirection

fix!: raise error if there is a 301/302 redirection ([3742405](#))

- Merge pull request #1512 from JohnVillalovos/jlvillal/type_managers

chore: improve type-hinting for managers ([5247e8b](#))

- Merge pull request #1585 from JohnVillalovos/jlvillal/archive_type

docs: correct documented return type ([557c7d2](#))

- Merge pull request #1565 from javatarz/master

feat: allow global `retry_transient_errors` ([d98d948](#))

7.9.25 v2.10.1 (2021-08-28)

Chore

- chore(deps): update dependency types-pyyaml to v5.4.8 ([2ae1dd7](#))
- chore(deps): update dependency types-pyyaml to v5.4.7 ([ec8be67](#))
- chore(deps): update codecov/codecov-action action to v2 ([44f4fb7](#))
- chore(deps): update typing dependencies ([34fc210](#))
- chore: define root dir in mypy, not tox ([7a64e67](#))
- chore(deps): group typing requirements with mypy additional_dependencies ([38597e7](#))
- chore: fix mypy pre-commit hook ([bd50df6](#))
- chore(deps): update dependency types-requests to v2.25.2 ([4782678](#))
- chore(deps): update wagoid/commitlint-github-action action to v4 ([ae97196](#))
- chore(deps): update dependency types-requests to v2.25.1 ([a2d133a](#))
- chore(deps): update precommit hook pycqa/isort to v5.9.3 ([e1954f3](#))
- chore(deps): update dependency isort to v5.9.3 ([ab46e31](#))

Documentation

- docs(mergequests): gl.mergequests.list documentation was missleading ([5b5a7bc](#))

Fix

- fix(mixins): improve deprecation warning

Also note what should be changed ([57e0187](#))

- fix(deps): upgrade requests to 2.25.0 (see CVE-2021-33503) ([ce995b2](#))

Unknown

- Merge pull request #1550 from python-gitlab/renovate/codecov-codecov-action-2.x
chore(deps): update codecov/codecov-action action to v2 ([e54832a](#))
- Merge pull request #1566 from Psycojoker/doc/mergequest_list_missleading_doc
docs(mergequests): gl.mergequests.list documentation was misleading ([8e27721](#))
- Merge pull request #1571 from python-gitlab/fix-mixings-improve-deprecation-warning
fix(mixins): improve deprecation warning ([e2fdfbb](#))

7.9.26 v2.10.0 (2021-07-28)

Chore

- chore(deps): update dependency requests to v2.26.0 ([d3ea203](#))
- chore(deps): update precommit hook pycqa/isort to v5.9.2 ([521cd3d](#))
- chore(deps): update dependency isort to v5.9.2 ([d5dcf1c](#))

Documentation

- docs(readme): move contributing docs to CONTRIBUTING.rst

Move the Contributing section of README.rst to CONTRIBUTING.rst, so it is recognized by GitHub and shown when new contributors make pull requests. ([edf49a3](#))

- docs: add example for mr.merge_ref

Signed-off-by: Matej Focko <mfocko@redhat.com> ([b30b8ac](#))

- docs(project): add example on getting a single project using name with namespace ([ef16a97](#))

Feature

- feat(api): add merge_ref for merge requests

Support merge_ref on merge requests that returns commit of attempted merge of the MR.

Signed-off-by: Matej Focko <mfocko@redhat.com> ([1e24ab2](#))

- feat(api): add name_regex_keep attribute in delete_in_bulk() ([e49ff3f](#))

Fix

- fix(api): do not require Release name for creation

Stop requiring a name attribute for creating a Release, since a release name has not been required since GitLab 12.5. ([98cd03b](#))

Test

- test(functional): add mr.merge_ref tests
- Add test for using merge_ref on non-merged MR
- Add test for using merge_ref on MR with conflicts

Signed-off-by: Matej Focko <mfocko@redhat.com> ([a9924f4](#))

Unknown

- Merge pull request #1537 from antti-mikael/feat/registry-deleteinbulk-keepregex
feat(api): add name_regex_keep attribute in delete_in_bulk() (85713bb)

7.9.27 v2.9.0 (2021-06-28)

Chore

- chore: skip EE test case in functional tests (953f207)
- chore(deps): update dependency mypy to v0.910 (02a56f3)
- chore(deps): update dependency types-requests to v2 (a81a926)
- chore(deps): update precommit hook pycqa/isort to v5.9.1 (c57ffe3)
- chore(deps): update dependency isort to v5.9.1 (0479dba)
- chore(deps): update dependency types-requests to v0.1.13 (c3ddae2)
- chore(deps): update dependency types-requests to v0.1.12 (f84c2a8)
- chore(deps): update dependency types-pyyaml to v5 (5c22634)
- chore(deps): update dependency types-pyyaml to v0.1.9 (1f5b3c0)
- chore(deps): update dependency types-pyyaml to v0.1.8 (e566767)
- chore(deps): update dependency mypy to v0.902 (19c9736)
- chore(deps): update dependency types-requests to v0.1.11 (6ba629c)
- chore: add type-hints to gitlab/v4/objects/projects.py

Adding type-hints to gitlab/v4/objects/projects.py (872dd6d)

Documentation

- docs(tags): remove deprecated functions (1b1a827)
- docs(release): add update example (6254a5f)
- docs: make Gitlab class usable for intersphinx (8753add)

Feature

- feat(release): allow to update release

Release API now supports PUT. (b4c4787)

- feat(api): add group hooks (4a7e9b8)
- feat(api): remove responsibility for API inconsistencies for MR reviewers (3d985ee)
- feat(api): add MR pipeline manager in favor of pipelines() method (954357c)

Test

- test(releases): integration for release PUT ([13bf61d](#))
- test(releases): add unit-tests for release update ([5b68a5a](#))

Unknown

- Merge pull request #1533 from sugonyak/add-group-hooks
feat(api): add group hooks ([6abf13a](#))
- Merge pull request #1522 from PPaques/1521-releases-edit
Support Release Update API ([33d3428](#))
 - Merge pull request #1396 from spyoungtech/merge_request_reviewers
feat(api): add support for creating/editing reviewers in project MRs ([2c86003](#))
 - Merge pull request #1528 from python-gitlab/renovate/types-requests-2.x
chore(deps): update dependency types-requests to v2 ([af7aae7](#))
 - Merge pull request #1323 from python-gitlab/feat/mr-pipeline-manager
feat(api): add merge request pipeline manager and deprecate mr.pipelines() method ([e77554c](#))
 - Merge pull request #1513 from python-gitlab/renovate/types-pyyaml-0.x
chore(deps): update dependency types-pyyaml to v0.1.8 ([e3aa023](#))
 - Merge pull request #1514 from python-gitlab/renovate/types-requests-0.x
chore(deps): update dependency types-requests to v0.1.11 ([82973ce](#))
 - Merge pull request #1504 from python-gitlab/renovate/mypy-0.x
chore(deps): update dependency mypy to v0.902 ([387e147](#))
 - Merge pull request #1505 from JohnVillalovos/jlvillal/mypy-deps
chore: add new required type packages for mypy ([5446423](#))
 - Merge pull request #1511 from JohnVillalovos/jlvillal/testing-type-hints
chore: add type-hints to gitlab/v4/objects/projects.py ([8e6aaef5](#))

7.9.28 v2.8.0 (2021-06-10)

Chore

- chore: add new required type packages for mypy

New version of mypy flagged errors for missing types. Install the recommended type-* packages that resolve the issues. ([a7371e1](#))

- chore: sync create and update attributes for Projects

Sync the create attributes with: <https://docs.gitlab.com/ee/api/projects.html#create-project>

Sync the update attributes with documentation at: <https://docs.gitlab.com/ee/api/projects.html#edit-project>

As a note the ordering of the attributes was done to match the ordering of the attributes in the documentation.

Closes: #1497 ([@044bd2](#))

- chore: add missing linters to pre-commit and pin versions ([85bbd1a](#))
- chore(ci): use admin PAT for release workflow ([d175d41](#))
- chore: add missing optional create parameter for approval_rules

Add missing optional create parameter ('protected_branch_ids') to the project approvalrules.

https://docs.gitlab.com/ee/api/merge_request_approvals.html#create-project-level-rule ([@06a6001](#))

- chore: apply typing suggestions

Co-authored-by: John Villalovos <john@sodarock.com> ([a11623b](#))

- chore: add type-hints to gitlab/v4/cli.py
 - Add type-hints to gitlab/v4/cli.py
 - Add required type-hints to other files based on adding type-hints to gitlab/v4/cli.py ([2673af0](#))
- chore(ci): ignore .python-version from pyenv ([149953d](#))
- chore: apply suggestions ([fe7d19d](#))
- chore: clean up tox, pre-commit and requirements ([237b97c](#))
- chore: make certain dotfiles searchable by ripgrep

By explicitly NOT excluding the dotfiles we care about to the .gitignore file we make those files searchable by tools like ripgrep.

By default dotfiles are ignored by ripgrep and other search tools (not grep) ([e4ce078](#))

- chore: use built-in function issubclass() instead of getmro()

Code was using inspect.getmro() to replicate the functionality of the built-in function issubclass()

Switch to using issubclass() ([81f6386](#))

- chore: correct a type-hint ([@046607c](#))
- chore: move 'gitlab/tests/' dir to 'tests/unit/'

Move the 'gitlab/tests/' directory to 'tests/unit/' so we have all the tests located under the 'tests/' directory. ([1ac0722](#))

- chore: rename 'tools/functional/' to 'tests/functional/'

Rename the 'tools/functional/' directory to 'tests/functional/'

This makes more sense as these are functional tests and not tools.

This was dicussed in: <https://github.com/python-gitlab/python-gitlab/discussions/1468> ([502715d](#))

- chore: add a merge_request() pytest fixture and use it

Added a pytest.fixture for merge_request(). Use this fixture in tools/functional/api/test_merge_requests.py ([8be2838](#))

- chore: simplify functional tests

Add a helper function to have less code duplication in the functional testing. ([df9b5f9](#))

- chore: add functional test mr.merge() with long commit message

Functional test to show that <https://github.com/python-gitlab/python-gitlab/issues/1452> is fixed.

Added a functional test to ensure that we can use large commit message (10_000+ bytes) in mr.merge()

Related to: #1452 ([cd5993c](#))

- chore: add a functional test for issue #1120

Going to switch to putting parameters from in the query string to having them in the ‘data’ body section. Add a functional test to make sure that we don’t break anything.

<https://github.com/python-gitlab/python-gitlab/issues/1120> ([7d66115](#))

- chore: fix import ordering using isort

Fix the import ordering using isort.

<https://pycqa.github.io/isort/> ([f3af3d4](#))

- chore: add an isort tox environment and run isort in CI
 - Add an isort tox environment
 - Run the isort tox environment using –check in the Github CI

<https://pycqa.github.io/isort/> ([dda646e](#))

- chore(deps): update precommit hook alessandrojcm/commitlint-pre-commit-hook to v5 ([9ff349d](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.11.4-ce.0 ([4223269](#))
- chore(deps): update dependency docker-compose to v1.29.2 ([fc241e1](#))
- chore(ci): ignore debug and type_checking in coverage ([885b608](#))
- chore(ci): automate releases ([0ef497e](#))
- chore(docs): fix import order for readthedocs build ([c3de1fb](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.11.3-ce.0 ([f0b52d8](#))
- chore: have black run at the top-level

This will ensure everything is formatted with black, including setup.py. ([429d6c5](#))

- chore: have flake8 check the entire project

Have flake8 run at the top-level of the projects instead of just the gitlab directory. ([ab343ef](#))

- chore(deps): update gitlab/gitlab-ce docker tag to v13.11.2-ce.0 ([434d15d](#))
- chore: mypy: Disallow untyped definitions

Be more strict and don’t allow untyped definitions on the files we check.

Also this adds type-hints for two of the decorators so that now functions/methods decorated by them will have their types be revealed correctly. ([6aef2da](#))

- chore: remove commented-out print ([0357c37](#))

Documentation

- docs: fix typo in http_delete docstring ([5226f09](#))
- docs(api): add behavior in local attributes when updating objects ([38f65e8](#))
- docs: fail on warnings during sphinx build

This is useful when docs aren’t included in the toctree and don’t show up on RTD. ([cbd4d52](#))

Feature

- feat: add keys endpoint ([a81525a](#))
 - feat(objects): add support for Group wikis (#1484)
- feat(objects): add support for Group wikis ([74f5e62](#))
- feat(objects): add support for generic packages API ([79d88bd](#))
 - feat(api): add support for creating/editing reviewers in project merge requests ([676d1f6](#))
 - feat(api): add deployment mergerequests interface ([fb0c0d4](#))
 - feat(objects): support all issues statistics endpoints ([f731707](#))
 - feat(objects): add support for descendant groups API ([1b70580](#))
 - feat(objects): add pipeline test report support ([ee9f96e](#))
 - feat(objects): add support for billable members ([fb0b083](#))
 - feat: add feature to get inherited member for project/group ([e444b39](#))
 - feat: add code owner approval as attribute

The python API was missing the field `code_owner_approval_required` as implemented in the GitLab REST API. ([fdc46ba](#))

- feat: indicate that we are a typed package

By adding the file: `py.typed` it indicates that `python-gitlab` is a typed package and contains type-hints.

<https://www.python.org/dev/peps/pep-0561/> ([e4421ca](#))

Fix

- fix: catch invalid type used to initialize RESTObject

Sometimes we have errors where we don't get a dictionary passed to `RESTObject.init()` method. This breaks things but in confusing ways.

Check in the `init()` method and raise an exception if it occurs. ([c7bcc25](#))

- fix: functional project service test (#1500)

chore: fix functional project service test ([093db9d](#))

- fix: ensure kwargs are passed appropriately for `ObjectDeleteMixin` ([4e690c2](#))
- fix(cli): add missing list filter for jobs ([b3d1c26](#))
- fix: change `mr.merge()` to use 'post_data'

MR <https://github.com/python-gitlab/python-gitlab/pull/1121> changed `mr.merge()` to use 'query_data'. This appears to have been wrong.

From the Gitlab docs they state it should be sent in a payload body <https://docs.gitlab.com/ee/api/README.html#request-payload> since `mr.merge()` is a PUT request.

> Request Payload

> API Requests can use parameters sent as query strings or as a > payload body. GET requests usually send a query string, while PUT > or POST requests usually send the payload body

Fixes: #1452 Related to: #1120 ([cb6a3c6](#))

- fix(cli): fix parsing CLI objects to classnames ([4252070](#))
- fix(objects): return server data in cancel/retry methods ([9fed061](#))
- fix(objects): add missing group attributes ([d20ff4f](#))
- fix(objects): allow lists for filters for in all objects ([603a351](#))
- fix: iids not working as a list in projects.issues.list()

Set the ‘iids’ values as type ListAttribute so it will pass the list as a comma-separated string, instead of a list.

Add a functional test.

Closes: #1407 ([45f806c](#))

Style

- style: clean up test run config ([dfa40c1](#))

Test

- test(functional): force delete users on reset

Timing issues between requesting group deletion and GitLab enacting that deletion resulted in errors while attempting to delete a user which was the sole owner of said group (see: test_groups). Pass the ‘hard_delete’ parameter to ensure user deletion. ([8f81456](#))

- test(api): fix issues test

Was incorrectly using the issue ‘id’ vs ‘iid’. ([8e5b0de](#))

- test(functional): explicitly remove deploy tokens on reset

Deploy tokens would remain in the instance if the respective project or group was deleted without explicitly revoking the deploy tokens first. ([19a55d8](#))

- test(cli): replace assignment expression

This is a feature added in 3.8, removing it allows for the test to run with lower python versions. ([11ae11b](#))

- test(functional): optionally keep containers running post-tests

Additionally updates token creation to make use of `first_or_create()`, to avoid errors from the script caused by GitLab constraints preventing duplicate tokens with the same value. ([4c475ab](#))

- test(cli): add more real class scenarios ([8cf5031](#))
- test(functional): add test for skip_groups list filter ([a014774](#))
- test(functional): start tracking functional test coverage ([f875786](#))

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- Merge pull request #1487 from JohnVillalovos/jlvillal/check_attrs

fix: catch invalid type used to initialize RESTObject ([600a2c1](#))

- Merge pull request #1489 from python-gitlab/chore/release-action-gh-token

chore(ci): use PAT for release workflow ([161bb0b](#))

- Merge pull request #1499 from JohnVillalovos/jlvillal/projects_attrs

chore: sync create and update attributes for Projects ([f91b72a](#))

- Merge pull request #1490 from benjamb/benbrown/keys

feat: add keys endpoint ([d3fac50](#))

- Merge pull request #1478 from benjamb/benbrown/keep-containers

Optionally keep containers after running integration tests ([d981956](#))

- Merge pull request #1483 from JohnVillalovos/jlvillal/mypy_cli

chore: add type-hints to gitlab/v4/cli.py ([55ae61a](#))

- Merge pull request #1488 from JohnVillalovos/jlvillal/add_missing_option

chore: add missing optional create parameter for approval_rules ([ac92205](#))

- Merge pull request #1249 from rmonat/master

feat: add pipeline test report support ([fb7174e](#))

- Merge pull request #1475 from JohnVillalovos/jlvillal/gitignore

chore: make certain dotfiles searchable by ripgrep ([861d3d2](#))

- Merge pull request #1481 from JohnVillalovos/jlvillal/no_getmro

chore: use built-in function issubclass() instead of getmro() ([489b0d3](#))

- Merge pull request #1474 from JohnVillalovos/jlvillal/mv_unit_tests

chore: move ‘gitlab/tests/’ dir to ‘tests/unit/’ ([56770ce](#))

- Merge pull request #1480 from JohnVillalovos/jlvillal/fix_hint

chore: correct a type-hint ([8eb911d](#))

- Merge pull request #1469 from JohnVillalovos/jlvillal/test_directory

chore: rename ‘tools/functional/’ to ‘tests/functional/’ ([90ecf2f](#))

- Merge pull request #1465 from JohnVillalovos/jlvillal/fix_1452_query_parameters

Switch mr.merge() to use post_data (was using query_data) ([9beff0d](#))

- Merge pull request #1456 from python-gitlab/feat/billable-members

feat(objects): add support for billable members ([184b94b](#))

- Merge pull request #1463 from JohnVillalovos/jlvillal/isort

chore: add isort as a checker ([7824811](#))

- Merge pull request #1290 from python-gitlab/fix/parse-cli-objects-camelcase

fix(cli): fix parsing CLI objects to classnames ([1508eb7](#))

- Merge pull request #1459 from python-gitlab/renovate/alessandrojcm-commitlint-pre-commit-hook-5.x

chore(deps): update precommit hook alessandrojcm/commitlint-pre-commit-hook to v5 ([ce0e642](#))

- Merge pull request #1376 from Shkurupii/feat-get-inherited-members

feat: get inherited member for project/group ([f35c73e](#))

- Merge pull request #1455 from python-gitlab/renovate/gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.11.4-ce.0 ([c4979a8](#))

- Merge pull request #1451 from python-gitlab/renovate/docker-compose-1.x

chore(deps): update dependency docker-compose to v1.29.2 ([3628949](#))

- Merge pull request #1427 from python-gitlab/chore/automate-releases

chore(ci): automate releases ([25695d9](#))

- Merge pull request #1448 from python-gitlab/docs/local-object-attributes

docs(api): add behavior in local attributes when updating objects ([b0b2113](#))

- Merge pull request #1449 from python-gitlab/chore/ignore-typing-coverage

chore(ci): ignore debug and type_checking in coverage ([62b544d](#))

- Merge pull request #1440 from python-gitlab/test/functional-test-coverage

test(functional): start tracking functional test coverage ([0d3b8ae](#))

- Merge pull request #1420 from python-gitlab/fix/missing-list-attributes

fix(objects): make lists work for filters in all objects ([45edae9](#))

- Merge pull request #1444 from python-gitlab/fix/return-retry-cancel-output

fix(objects): return server data in cancel/retry methods ([1ddb54a](#))

- Merge pull request #1409 from JohnVillalovos/jlville/untyped_defs

chore: mypy: Disallow untyped definitions ([562fbbd](#))

- Merge pull request #1442 from python-gitlab/chore/fix-readthedocs

chore(docs): fix import order for readthedocs build ([b563cdc](#))

- Merge pull request #1441 from python-gitlab/docs/no-manpages-warnings

docs: fail on warnings during sphinx build ([e46cacf](#))

- Merge pull request #1438 from python-gitlab/fix/missing-group-attributes

fix(objects): add missing group attributes ([5061972](#))

- Merge pull request #1434 from python-gitlab/renovate/docker-gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.11.3-ce.0 ([1e6305e](#))

- Merge pull request #1437 from daniellanner/feat/api-code-owner-approval

feat: add code owner approval as attribute ([d61e669](#))

- Merge pull request #1433 from JohnVillalovos/jlville/black

chore: have black run at the top-level ([09ef8d4](#))

- Merge pull request #1429 from JohnVillalovos/jlville/flake8

chore: have flake8 check the entire project ([b498ebd](#))

- Merge pull request #1421 from JohnVillalovos/jlville/typed_gitlab

feat: indicate that we are a typed package ([98891eb](#))

- Merge pull request #1413 from JohnVillalovos/jlvillal/1407

fix: iids not working as a list in projects.issues.list() ([a6b6cd4](#))

- Merge pull request #1352 from JohnVillalovos/jlvillal/fix_mro

fix: add a check to ensure the MRO is correct ([909aa9a](#))

- Merge pull request #1415 from JohnVillalovos/jlvillal/list_attribute_int

feat: add support for lists of integers to ListAttribute ([dde01c7](#))

- Merge pull request #1412 from JohnVillalovos/jlvillal/optional_get_attrs

chore: make Get.*Mixin._optional_get_attrs always present ([5b81d7d](#))

7.9.29 v2.7.1 (2021-04-26)

Feature

- feat: add support for lists of integers to ListAttribute

Previously ListAttribute only support lists of integers. Now be more flexible and support lists of items which can be coerced into strings, for example integers.

This will help us fix issue #1407 by using ListAttribute for the ‘iids’ field. ([115938b](#))

Fix

- fix(files): do not url-encode file paths twice ([8e25cec](#))

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- Merge pull request #1418 from python-gitlab/fix/urlencode-file-paths

fix(files): do not url-encode filepaths twice ([37af229](#))

7.9.30 v2.7.0 (2021-04-25)

Chore

- chore(objects): remove noisy deprecation warning for audit events

It's mostly an internal thing anyway and can be removed in 3.0.0 ([2953642](#))

- chore: make Get.*Mixin._optional_get_attrs always present

Always create GetMixin/GetWithoutIdMixin._optional_get_attrs attribute with a default value of tuple()

This way we don't need to use hasattr() and we will know the type of the attribute. ([3c1a0b3](#))

- chore: make ListMixin._list_filters always present

Always create ListMixin._list_filters attribute with a default value of tuple().

This way we don't need to use hasattr() and we will know the type of the attribute. ([8933113](#))

- chore: make RESTObject._short_print_attrs always present

Always create RESTObject._short_print_attrs with a default value of None.

This way we don't need to use hasattr() and we will know the type of the attribute. ([6d55120](#))

- chore: bump version to 2.7.0 ([34c4052](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.11.1-ce.0 ([3088714](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.11.0-ce.0 ([711896f](#))
- chore: remove unused function sanitize_parameters()

The function sanitize_parameters() was used when the v3 API was in use. Since v3 API support has been removed there are no more users of this function. ([443b934](#))

- chore: fix F841 errors reported by flake8

Local variable name is assigned to but never used

<https://www.flake8rules.com/rules/F841.html> ([40f4ab2](#))

- chore: fix F401 errors reported by flake8

F401: Module imported but unused

<https://www.flake8rules.com/rules/F401.html> ([ff21eb6](#))

- chore: fix E711 error reported by flake8

E711: Comparison to none should be 'if cond is none:'

<https://www.flake8rules.com/rules/E711.html> ([630901b](#))

- chore: fix E712 errors reported by flake8

E712: Comparison to true should be 'if cond is true:' or 'if cond:'

<https://www.flake8rules.com/rules/E712.html> ([83670a4](#))

- chore: fix E741/E742 errors reported by flake8

Fixes to resolve errors for: <https://www.flake8rules.com/rules/E741.html> Do not use variables named 'T', 'O', or 'l' (E741)

<https://www.flake8rules.com/rules/E742.html>

```
Do not define classes named 'I', 'O', or 'l'; (E742)
↳ ([`380f227`](https://github.com/python-gitlab/python-gitlab/commit/
↳ 380f227a1ecffd5e22ae7aefed95af3b5d830994))
```

- chore: fix typo in mr events ([c5e6fb3](#))
- chore(config): allow simple commands without external script ([91ffb8e](#))
- chore: have _createAttrs & _updateAttrs be a namedtuple

Convert _createAttrs and _updateAttrs to use a NamedTuple (RequiredOptional) to help with code readability. Update all code to use the NamedTuple. ([aee1f49](#))

- chore(deps): update dependency docker-compose to v1.29.1 ([a89ec43](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.10.3-ce.0 ([eabe091](#))
- chore(deps): update dependency sphinx to v3.5.4 ([a886d28](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.10.1-ce.0 ([1995361](#))
- chore(deps): update dependency docker-compose to v1.28.6 ([46b05d5](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.10.0-ce.0 ([5221e33](#))

- chore(deps): update gitlab/gitlab-ce docker tag to v13.9.4-ce.0 ([939f769](#))
- chore: remove usage of getattr()

Remove usage of getattr(self, “_update_uses_post”, False)

Instead add it to class and set default value to False.

Add a tests that shows it is set to True for the ProjectMergeRequestApprovalManager and ProjectApprovalManager classes. ([2af18a](#))

- chore: fix package file test naming ([8c80268](#))
- chore: add _create_attrs & _update_attrs to RESTManager

Add the attributes: _create_attrs and _update_attrs to the RESTManager class. This is so that we stop using getattr() if we don't need to.

This also helps with type-hints being available for these attributes. ([147f05d](#))

- chore(deps): update gitlab/gitlab-ce docker tag to v13.9.3-ce.0 ([2ddf45f](#))
- chore: make _types always present in RESTManager

We now create _types = {} in RESTManager class.

By making _types always present in RESTManager it makes the code simpler. We no longer have to do: types = getattr(self, “_types”, {})

And the type checker now understands the type. ([924f83e](#))

- chore: make lint happy ([7a7c9fd](#))
- chore: make lint happy ([b5f43c8](#))
- chore: make lint happy ([732e49c](#))
- chore: import audit events in objects ([35a190c](#))
- chore: add type-hints for gitlab/mixins.py
 - Added type-hints for gitlab/mixins.py
 - Changed use of filter with a lambda expression to list-comprehension. mypy was not able to understand the previous code. Also list-comprehension is better :) ([baea721](#))
- chore(deps): update dependency sphinx to v3.5.2 ([9dee5c4](#))
- chore: add test ([f8cf1e1](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.9.2-ce.0 ([933ba52](#))
- chore: put assert statements inside ‘if TYPE_CHECKING:’

To be safe that we don't assert while running, put the assert statements, which are used by mypy to check that types are correct, inside an ‘if TYPE_CHECKING:’ block.

Also, instead of asserting that the item is a dict, instead assert that it is not a requests.Response object. Theoretically the JSON could return as a list or dict, though at this time we are assuming a dict. ([b562458](#))

- chore: add type hints to gitlab/base.py:RESTManager

Add some additional type hints to gitlab/base.py ([9c55593](#))

- chore: del ‘import *’ in gitlab/v4/objects/project_access_tokens.py

Remove usage of ‘import *’ in gitlab/v4/objects/project_access_tokens.py. ([9efbe12](#))

- chore: disallow incomplete type defs

Don't allow a partially annotated function definition. Either none of the function is annotated or all of it must be.

Update code to ensure no-more partially annotated functions.

Update gitlab/cli.py with better type-hints. Changed Tuple[Any, ...] to Tuple[str, ...] ([907634f](#))

- chore(api): move repository endpoints into separate module ([1ed154c](#))
- chore: add additional type-hints for gitlab/base.py

Add type-hints for the variables which are set via self.`dict`

mypy doesn't see them when they are assigned via self.`dict`. So declare them in the class definition. ([ad72ef3](#))

- chore: add and fix some type-hints in gitlab/client.py

Was able to figure out better type-hints for gitlab/client.py ([8837207](#))

- chore: remove import of gitlab.utils from `init.py`

Initially when extracting out the gitlab/client.py code we tried to remove this but functional tests failed.

Later we fixed the functional test that was failing, so now remove the unneeded import. ([39b9183](#))

- chore: add type-hints to gitlab/client.py

Adding some initial type-hints to gitlab/client.py ([c9e5b4f](#))

- chore: improve type-hints for gitlab/base.py

Determined the base class for `obj_cls` and adding type-hints for it. ([cbd43d0](#))

- chore(deps): update dependency docker-compose to v1.28.5 ([f4ab558](#))
- chore: add type-hints to gitlab/cli.py ([10b7b83](#))
- chore: add type-hints to gitlab/config.py ([213e563](#))
- chore: add type hints to gitlab/utils.py ([acd9294](#))
- chore: add type-hints to gitlab/const.py ([a10a777](#))
- chore(deps): update wagoid/commitlint-github-action action to v3 ([b3274cf](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.9.1-ce.0 ([f6fd995](#))
- chore: remove usage of 'from ... import *'

In gitlab/v4/objects/*.py remove usage of:

- from gitlab.base import *
- from gitlab.mixins import *

Change them to:

- from gitlab.base import CLASS_NAME
- from gitlab.mixins import CLASS_NAME

Programmatically update code to explicitly import needed classes only.

After the change the output of: \$ flake8 gitlab/v4/objects/*py | grep 'REST|Mixin'

Is empty. Before many messages about unable to determine if it was a valid name. ([c83eaf4](#))

- chore: remove unused function `_construct_url()`

The function `_construct_url()` was used by the v3 API. All usage of the function was removed in commit fe89b949922c028830dd49095432ba627d330186 ([009d369](#))

- chore: add type hints to gitlab/base.py ([3727cbd](#))
- chore: remove usage of ‘from … import *’ in client.py

In gitlab/client.py remove usage of:

- from gitlab.const import *
- from gitlab.exceptions import *

Change them to:

- import gitlab.const
- import gitlab.exceptions

Update code to explicitly reference things in gitlab.const and gitlab.exceptions

A flake8 run no longer lists any undefined variables. Before it listed possible undefined variables. ([bf0c8c5](#))

- chore(deps): update gitlab/gitlab-ce docker tag to v13.9.0-ce.0 ([3aef19c](#))
- chore: explicitly import gitlab.v4.objects/cli

As we only support the v4 Gitlab API, explicitly import gitlab.v4.objects and gitlab.v4.cli instead of dynamically importing it depending on the API version.

This has the added benefit of mypy being able to type check the Gitlab **init()** function as currently it will fail if we enable type checking of **init()** it will fail.

Also, this also helps by not confusing tools like pyinstaller/cx_freeze with dynamic imports so you don’t need hooks for standalone executables. And according to <https://docs.gitlab.com/ee/api/>,

"GraphQL co-exists with the current v4 REST API. If we have a v5 API, this should be a compatibility layer on top of GraphQL." ([`233b79e`](

- chore(objects): make Project refreshable

Helps getting the real state of the project from the server. ([958a6aa](#))

- chore(tests): remove unused URL segment ([66f0b6c](#))
- chore(deps): update dependency docker-compose to v1.28.4 ([8938484](#))
- chore(deps): update dependency docker-compose to v1.28.3 ([2358d48](#))
- chore(deps): update dependency sphinx to v3.5.1 ([f916f09](#))
- chore: remove unused ALLOWED_KEYSET_ENDPOINTS variable

The variable ALLOWED_KEYSET_ENDPOINTS was added in commit f86ef3bbdb5bffa1348a802e62b281d3f31d33ad.

Then most of that commit was removed in commit e71fe16b47835aa4db2834e98c7ffc6bdec36723, but ALLOWED_KEYSET_ENDPOINTS was missed. ([3d5d5d8](#))

- chore: remove Python 2 code

httplib is a Python 2 library. It was renamed to http.client in Python 3.

<https://docs.python.org/2.7/library/httplib.html> ([b5d4e40](#))

- chore(deps): update dependency sphinx to v3.5.0 ([188c5b6](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.8.4-ce.0 ([832cb88](#))
- chore(ci): deduplicate PR jobs ([63918c3](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.8.3-ce.0 ([e6c20f1](#))

- chore(deps): update precommit hook alessandrojcm/commitlint-pre-commit-hook to v4 ([505a8b8](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.8.2-ce.0 ([7c12038](#))
- chore(deps): update dependency sphinx to v3.4.3 ([37c992c](#))

Documentation

- docs(api): add examples for resource state events ([4d00c12](#))
- docs: add information about the gitter community

Add a section in the README.rst about the gitter community. The badge already exists and is useful but very easy to miss. ([6ff67e7](#))

- docs(api): add release links API docs ([36d65f0](#))
- docs: add docs and examples for custom user agent ([a69a214](#))
- docs: change travis-ci badge to githubactions ([2ba5ba2](#))

Feature

- feat(objects): add support for resource state events API ([d4799c4](#))
- feat: add ProjectPackageFile

Add ProjectPackageFile and the ability to list project package package_files.

Fixes #1372 ([b9d469b](#))

- feat(objects): add support for group audit events API ([2a0fbdf](#))
- feat: option to add a helper to lookup token ([8ecf559](#))
- feat(users): add follow/unfollow API ([e456869](#))
- feat(projects): add project access token api ([1becef0](#))
- feat: add an initial mypy test to tox.ini

Add an initial mypy test to test gitlab/base.py and gitlab/**init**.py ([fddec039](#))

- feat(objects): add Release Links API support ([28d7518](#))
- feat: add project audit endpoint ([6660dbe](#))
- feat: add personal access token API

See: https://docs.gitlab.com/ee/api/personal_access_tokens.html ([2bb16fa](#))

- feat(issues): add missing get verb to IssueManager ([f78ebef0](#))
- feat: import from bitbucket server

I'd like to use this libary to automate importing Bitbucket Server repositories into GitLab. There is a [GitLab API endpoint](#) to do this, but it is not exposed through this library.

- Add an `import_bitbucket_server` method to the `ProjectManager`. This method calls this GitLab API endpoint: <https://docs.gitlab.com/ee/api/import.html#import-repository-from-bitbucket-server>
- Modify `import_gitlab` method docstring for python3 compatibility
- Add a skipped stub test for the existing `import_github` method ([ff3013a](#))
- feat(api,cli): make user agent configurable ([4bb201b](#))

Fix

- fix: add a check to ensure the MRO is correct

Add a check to ensure the MRO (Method Resolution Order) is correct for classes in `gitlab.v4.objects` when doing type-checking.

An example of an incorrect definition: `class ProjectPipeline(RESTObject, RefreshMixin, ObjectDeleteMixin):
~~~~~ This should be at the end.`

Correct way would be: `class ProjectPipeline(RefreshMixin, ObjectDeleteMixin, RESTObject):` Correctly at the end  
~~~~~

Also fix classes which have the issue. ([565d548](#))

- fix: correct `ProjectFile.decode()` documentation

`ProjectFile.decode()` returns ‘bytes’ and not ‘str’.

Update the method’s doc-string and add a type-hint.

`ProjectFile.decode()` returns the result of a call to `base64.b64decode()`

The docs for that function state it returns ‘bytes’: <https://docs.python.org/3/library/base64.html#base64.b64decode>

Fixes: #1403 ([b180baf](#))

- fix: update user’s bool data and avatar

If we want to update email, avatar and do not send email confirmation change (`skip_reconfirmation = True`), `MultipartEncoder` will try to encode everything except `None` and `bytes`. So it tries to encode bools. Casting bool’s values to their stringified int representation fix it. ([3ba27ff](#))

- fix: argument type was not a tuple as expected

While adding type-hints mypy flagged this as an issue. The third argument to `register_custom_action` is supposed to be a tuple. It was being passed as a string rather than a tuple of strings. ([062f8f6](#))

- fix: correct some type-hints in `gitlab/mixins.py`

Commit `baea7215bbbe07c06b2ca0f97a1d3d482668d887` introduced type-hints for `gitlab/mixins.py`.

After starting to add type-hints to `gitlab/v4/objects/users.py` discovered a few errors.

Main error was using ‘=’ instead of ‘:’. For example: `_parent = Optional[...]` should be `_parent: Optional[...]`

Resolved those issues. ([8bd3124](#))

- fix: only append kwargs as query parameters

Some arguments to `http_request` were being read from `kwargs`, but `kwargs` is where this function creates query parameters from, by default. In the absence of a `query_parameters` param, the function would construct URLs with query parameters such as `retry_transient_errors=True` despite those parameters having no meaning to the API to which the request was sent.

This change names those arguments that are specific to `http_request` so that they do not end up as query parameters read from `kwargs`. ([b9ecc9a](#))

- fix: only add `query_parameters` to `GitlabList` once

Fixes #1386 ([ca2c3c9](#))

- fix(types): prevent `dir` from producing duplicates ([5bf7525](#))

- fix: checking if `RESTManager._from_parentAttrs` is set

Prior to commit 3727cbd21fc40b312573ca8da56e0f6cf9577d08 RESTManager._from_parent_attrs did not exist unless it was explicitly set. But commit 3727cbd21fc40b312573ca8da56e0f6cf9577d08 set it to a default value of {}.

So the checks using hasattr() were no longer valid.

Update the checks to check if RESTManager._from_parent_attrs has a value. ([8224b40](#))

- fix: handling config value in _get_values_from_helper ([9dfb4cd](#))
- fix: update doc for token helper ([3ac6fa1](#))
- fix: let the homedir be expanded in path of helper ([fc7387a](#))
- fix: make secret helper more user friendly ([fc2798f](#))
- fix(objects): add single get endpoint for instance audit events ([c3f0a6f](#))
- fix: linting issues and test ([b04dd2c](#))
- fix: better real life token lookup example ([9ef8311](#))
- fix: handle tags like debian/2%2.6-21 as identifiers

Git refnames are relatively free-form and can contain all sort for special characters, not just / and #, see <http://git-scm.com/docs/git-check-ref-format>

In particular, Debian's DEP-14 standard for storing packaging in git repositories mandates the use of the % character in tags in some cases like debian/2%2.6-21.

Unfortunately python-gitlab currently only escapes / to %2F and in some cases # to %23. This means that when using the commit API to retrieve information about the debian/2%2.6-21 tag only the slash is escaped before being inserted in the URL path and the % is left untouched, resulting in something like /api/v4/projects/123/repository/commits/debian%2F2%2.6-21. When urllib3 sees that it detects the invalid % escape and then urlencodes the whole string, resulting in /api/v4/projects/123/repository/commits/debian%252F%252.6-21, where the original / got escaped twice and produced %252F.

To avoid the issue, fully urlencode identifiers and parameters to avoid the urllib3 auto-escaping in all cases.

Signed-off-by: Emanuele Aina <emanuele.aina@collabora.com> ([b4dac5c](#))

- fix: remove duplicate class definitions in v4/objects/users.py

The classes UserStatus and UserStatusManager were each declared twice. Remove the duplicate declarations. ([7c4e625](#))

- fix: wrong variable name

Discovered this when I ran flake8 on the file. Unfortunately I was the one who introduced this wrong variable name :(([15ec41c](#))

- fix: tox pep8 target, so that it can run

Previously running the pep8 target would fail as flake8 was not installed.

Now install flake8 for the pep8 target.

NOTE: Running the pep8 target fails as there are many warnings/errors. But it does allow us to run it and possibly work on reducing these warnings/errors in the future.

In addition, add two checks to the ignore list as black takes care of formatting. The two checks added to the ignore list are:

- E501: line too long
- W503: line break before binary operator ([f518e87](#))
- fix: undefined name errors

Discovered that there were some undefined names. ([48ec9e0](#))

- fix: extend wait timeout for `test_delete_user()`

Have been seeing intermittent failures of the `test_delete_user()` functional test. Have made the following changes to hopefully resolve the issue and if it still fails to know better why the failure occurred.

- Extend the wait timeout for `test_delete_user()` from 30 to 60 tries of 0.5 seconds each.
- Modify `wait_for_sidekiq()` to return True if sidekiq process terminated. Return False if the timeout expired.
- Modify `wait_for_sidekiq()` to loop through all processes instead of assuming there is only one process. If all processes are not busy then return.
- Modify `wait_for_sidekiq()` to sleep at least once before checking for processes being busy.
- Check for True being returned in `test_delete_user()` call to `wait_for_sidekiq()` ([19fde8e](#))
- fix: `test_update_group()` dependency on ordering

Since there are two groups we can't depend on the one we changed to always be the first one returned.

Instead fetch the group we want and then test our assertion against that group. ([e78a8d6](#))

- fix: honor parameter value passed

Gitlab allows setting the defaults for MR to delete the source. Also the inline help of the CLI suggest that a boolean is expected, but no matter what value you set, it will always delete. ([c2f8f0e](#))

Refactor

- refactor(objects): move instance audit events where they belong ([48ba88f](#))
- refactor: move Gitlab and GitlabList to gitlab/client.py

Move the classes Gitlab and GitlabList from `gitlab/init.py` to the newly created `gitlab/client.py` file.

Update one test case that was depending on requests being defined in `gitlab/init.py` ([53a7645](#))

- refactor(api): explicitly export classes for star imports ([f05c287](#))
- refactor(v4): split objects and managers per API resource ([a5a48ad](#))

Test

- test(object): add test for `dir` duplicates ([a8e591f](#))
- test(objects): add tests for resource state events ([10225cf](#))
- test(objects): add unit test for instance audit events ([84e3247](#))
- test: don't add duplicate fixture

Co-authored-by: Nejc Habjan <hab.nejc@gmail.com> ([5d94846](#))

- test(api): add functional test for release links API ([ab2a1c8](#))
- test(api,cli): add tests for custom user agent ([c5a37e7](#))

Unknown

- Merge pull request #1408 from python-gitlab/chore/bump-to-2-7-0

chore: bump version to 2.7.0 ([e37de18](#))

- Merge pull request #1411 from JohnVillalovos/jlvillal/list_filters

chore: make ListMixin._list_filters always present ([62c75b5](#))

- Merge pull request #1410 from JohnVillalovos/jlvillal/short_print_attr

chore: make RESTObject._short_print_attrs always present ([09522b3](#))

- Merge pull request #1414 from python-gitlab/chore/remove-noisy-deprecation-warning

chore(objects): remove noisy deprecation warning for audit events ([0a0fcacf](#))

- Merge pull request #1392 from bbatliner/patch-1

Improvements to HTTP requests ([cfc42d2](#))

- Merge pull request #1406 from python-gitlab/renovate/docker-gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.11.1-ce.0 ([4f79dff](#))

- Merge pull request #1405 from JohnVillalovos/jlvillal/returns_bytes

fix: correct ProjectFile.decode() documentation ([c055de0](#))

- Merge pull request #1397 from JohnVillalovos/jlvillal/flake8

Fix all issues reported by running: tox -e pep8 and enable pep8 as a linter check ([976e14d](#))

- Merge pull request #1404 from DylannCordel/fix-upd-user-bool-data-and-avatar

fix: update user's bool data and avatar ([5fac07a](#))

- Merge pull request #1383 from spoyoungtech/dirfix

fix(types): prevent **dir** in RestObject from producing duplicates ([60c5fd8](#))

- Merge pull request #1400 from JohnVillalovos/jlvillal/sanitize

chore: remove unused function sanitize_parameters() ([dd236a0](#))

- Merge pull request #1398 from JohnVillalovos/jlvillal/mypy_mixins

fix: correct some type-hints in gitlab/mixins.py ([5b18d20](#))

- Merge pull request #1399 from JohnVillalovos/jlvillal/fix_custom_action

fix: argument type was not a tuple as expected ([fc4f7fd](#))

- Merge pull request #1364 from python-gitlab/feat/resource-state-events

feat: add support for resource state events API ([916a7fe](#))

- Merge pull request #1359 from klorenz/feat_token_lookup

feat(config): allow using a credential helper to lookup tokens ([af781c1](#))

- Merge pull request #1375 from JohnVillalovos/jlvillal/update_uses_post

chore: remove usage of getattr() ([d236267](#))

- Merge pull request #1366 from JohnVillalovos/jlvillal/createAttrs

chore: have _createAttrs & _updateAttrs be a namedtuple ([d1697d4](#))

- Merge pull request #1391 from python-gitlab/renovate/docker-compose-1.x

chore(deps): update dependency docker-compose to v1.29.1 ([a6d3556](#))

- Merge pull request #1380 from python-gitlab/renovate/sphinx-3.x

chore(deps): update dependency sphinx to v3.5.4 ([6b86878](#))

- Merge pull request #1363 from python-gitlab/feat/all-audit-events

Feat: cover all audit events ([02ce49e](#))

- Merge pull request #1382 from python-gitlab/renovate/docker-compose-1.x

chore(deps): update dependency docker-compose to v1.28.6 ([e798c9b](#))

- Merge pull request #1373 from JacobHenner/jacobhenner/add-package_files

feat: add support for Project Package Files ([8ace76a](#))

- Merge pull request #1371 from JohnVillalovos/jlvillal/create_attrs_1

chore: add _create_attrs & _update_attrs to RESTManager ([8603248](#))

- Merge pull request #1369 from python-gitlab/renovate/docker-gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.9.3-ce.0 ([6fde243](#))

- Merge pull request #1367 from JohnVillalovos/jlvillal/from_parent_attrs

fix: checking if RESTManager._from_parent_attrs is set ([f93b9b5](#))

- Merge pull request #1365 from JohnVillalovos/jlvillal/getattr

chore: make _types always present in RESTManager ([de73ea7](#))

- Merge pull request #1336 from em-/fix/quote-everything

fix: handle tags like debian/2%2.6-21 as identifiers ([48fc907](#))

- Merge pull request #1344 from JohnVillalovos/jlvillal/mixins

chore: add type-hints for gitlab/mixins.py ([63ecd2e](#))

- Merge pull request #1353 from JohnVillalovos/jlvillal/mypy_base

chore: add type hints to gitlab/base.py:RESTManager ([ebdfec7](#))

- Merge pull request #1350 from JohnVillalovos/jlvillal/isinstance

chore: Put assert statements inside ‘if TYPE_CHECKING:’ ([c530f75](#))

- Merge pull request #1361 from python-gitlab/renovate/sphinx-3.x

chore(deps): update dependency sphinx to v3.5.2 ([c7a0669](#))

- Merge pull request #1358 from python-gitlab/renovate/docker-gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.9.2-ce.0 ([aa13214](#))

- Merge pull request #1351 from JohnVillalovos/jlvillal/import_start

chore: del ‘import *’ in gitlab/v4/objects/project_access_tokens.py ([96d2805](#))

- Merge pull request #1342 from JohnVillalovos/jlvillal/mypy_incomplete

chore: disallow incomplete type defs ([5f23ed9](#))

- Merge pull request #1347 from python-gitlab/chore/split-repository-methods

chore(api): move repository endpoints into separate module ([d8b8a0a](#))

- Merge pull request #1343 from JohnVillalovos/jlvillal/mypy_testing_things

chore: add and fix some type-hints in gitlab/client.py ([f5a65f0](#))

- Merge pull request #1345 from JohnVillalovos/jlvillal/mypy_base_fixes

chore: add additional type-hints for gitlab/base.py ([7441455](#))

- Merge pull request #1333 from python-gitlab/feat/user-follow-api

feat(users): add follow/unfollow API ([5bc158d](#))

- Merge pull request #1339 from JohnVillalovos/jlvillal/mypy_client_py

chore: add type-hints to gitlab/client.py ([b0d75d9](#))

- Merge pull request #1341 from JohnVillalovos/jlvillal/gitter

doc: add information about the gitter community ([adab83a](#))

- Merge pull request #1340 from JohnVillalovos/jlvillal/gitlab_init

chore: remove import of gitlab.utils from `init.py` ([d0eb1b5](#))

- Merge pull request #1338 from JohnVillalovos/jlvillal/mypy_base

Improve type-hints for gitlab/base.py ([cbd4f1e](#))

- Merge pull request #1334 from JohnVillalovos/jlvillal/mypy_cli

chore: add type-hints to gitlab/cli.py ([f909cae](#))

- Merge pull request #1337 from python-gitlab/renovate/docker-compose-1.x

chore(deps): update dependency docker-compose to v1.28.5 ([bd62fed](#))

- Merge pull request #1335 from JohnVillalovos/jlvillal/remove_dup_classes

fix: remove duplicate class definitions in v4/objects/users.py ([ecb686d](#))

- Merge pull request #1328 from python-gitlab/renovate/wagoid-commitlint-github-action-3.x

chore(deps): update wagoid/commitlint-github-action action to v3 ([6662252](#))

- Merge pull request #1329 from JohnVillalovos/jlvillal/mypy_const

Add type-hints to gitlab/const.py ([ca4c1d9](#))

- Merge pull request #1330 from JohnVillalovos/jlvillal/mypy_utils

chore: add type hints to gitlab/utils.py ([a1a8bfe](#))

- Merge pull request #1331 from JohnVillalovos/jlvillal/mypy_config

chore: add type-hints to gitlab/config.py ([d207074](#))

- Merge pull request #1332 from JohnVillalovos/jlvillal/fix_variable

chore: fix wrong variable name in cli.py ([665c0c3](#))

- Merge pull request #1319 from JohnVillalovos/jlvillal/import_star

chore: remove usage of ‘from ... import *’ ([0b67ca2](#))

- Merge pull request #1327 from python-gitlab/feat/project-access-token-api

feat(projects): add project access token api ([e06c51b](#))

- Merge pull request #1325 from JohnVillalovos/jlvillal/pep8

fix: tox pep8 target, so that it can run ([bb227d3](#))

- Merge pull request #1322 from JohnVillalovos/jlvillal/missing_vars

fix: undefined name errors in v4 objects ([a7ec67f](#))

- Merge pull request #1321 from JohnVillalovos/jlvillal/remove_crust

chore: remove unused function _construct_url() ([d90be1e](#))

- Merge pull request #1299 from JohnVillalovos/mypy

Enable mypy type checking and add type hints to gitlab/base.py ([a18bc5c](#))

- Merge pull request #1318 from JohnVillalovos/jlvillal/testing

chore: remove usage of 'from ... import *' in client.py ([d9fdf1d](#))

- Merge pull request #1310 from JohnVillalovos/jlvillal/v4_only

chore: explicitly import gitlab.v4.objects/cli ([8c58b07](#))

- Merge pull request #1316 from JohnVillalovos/jlvillal/test_wait

test: extend wait timeout for test_delete_user() ([5cc60d5](#))

- Merge pull request #1314 from python-gitlab/feat/release-links

feat: add release links API support ([2b29776](#))

- Merge pull request #1311 from JohnVillalovos/jlvillal/fix_functional

fix: test_update_group() dependency on ordering ([3381700](#))

- Merge pull request #1307 from python-gitlab/renovate/docker-compose-1.x

chore(deps): update dependency docker-compose to v1.28.4 ([649385c](#))

- Merge pull request #1308 from Sineaggi/add-project-audit-endpoint

feat: add project audit endpoint ([0c5a23e](#))

- Merge pull request #1301 from JohnVillalovos/refactor_jlvillal

refactor: move Gitlab and GitlabList to gitlab/client.py ([2c4fcf8](#))

- Merge pull request #1305 from python-gitlab/renovate/docker-compose-1.x

chore(deps): update dependency docker-compose to v1.28.3 ([d4e7a03](#))

- Merge pull request #1304 from python-gitlab/feat/personal-access-token-api

feat: add personal access token API ([ef8fcf7](#))

- Merge pull request #1300 from JohnVillalovos/remove_crust

chore: remove unused ALLOWED_KEYSET_ENDPOINTS variable ([bec2094](#))

- Merge pull request #1303 from python-gitlab/renovate/sphinx-3.x

chore(deps): update dependency sphinx to v3.5.1 ([9f6691d](#))

- Merge pull request #1271 from allcloud-jonathan/feature/honor-bool-for-delete-source

fix: honor parameter value passed ([1552eb5](#))

- Merge pull request #1298 from JohnVillalovos/master

Remove Python 2 code ([07edafe](#))

- Merge pull request #1288 from python-gitlab/refactor/split-objects

refactor(v4): split objects and managers per API resource ([9fcfd962](#))

- Merge pull request #1295 from python-gitlab/renovate/sphinx-3.x

chore(deps): update dependency sphinx to v3.5.0 ([76e6f87](#))

- Merge pull request #1292 from python-gitlab/renovate/docker-gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.8.4-ce.0 ([45fc49e](#))

- Merge pull request #1223 from python-gitlab/feat/single-issue-api

feat(issues): add missing get verb to IssueManager ([9d6c188](#))

- Merge pull request #1287 from python-gitlab/chore/deduplicate-pr-jobs

chore(ci): deduplicate PR jobs ([9fe506f](#))

- Merge pull request #1283 from fajpunk/import_bitbucket

feat: import from bitbucket server ([b48563f](#))

- Merge pull request #1244 from python-gitlab/renovate/alessandrojcm-commitlint-pre-commit-hook-4.x

chore(deps): update precommit hook alessandrojcm/commitlint-pre-commit-hook to v4 ([3935baF](#))

- Merge pull request #1281 from python-gitlab/renovate/docker-gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.8.2-ce.0 ([1d9155c](#))

- Merge pull request #1225 from python-gitlab/renovate/sphinx-3.x

chore(deps): update dependency sphinx to v3.4.3 ([a985c34](#))

- Merge pull request #1277 from python-gitlab/feat/override-user-agent

feat(api,cli): make user agent configurable ([643454c](#))

- Merge pull request #1276 from python-gitlab/bufferoverflow-patch-1

docs: switch from travis-ci.org to GitHub Actions ([071d699](#))

7.9.31 v2.6.0 (2021-01-29)

Chore

- chore: officially support and test 3.9 ([62dd07d](#))
- chore(deps): pin dependency requests-toolbelt to ==0.9.1 ([4d25f20](#))
- chore(deps): update dependency requests to v2.25.1 ([9c2789e](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.8.1-ce.0 ([9854d6d](#))
- chore(ci): add coverage and docs jobs ([2de64cf](#))
- chore(ci): force colors in pytest runs ([1502079](#))
- chore(ci): pin docker-compose install for tests

This ensures python-dotenv with expected behavior for .env processing ([1f7a2ab](#))

- chore(ci): pin os version ([cfa27ac](#))
- chore(ci): fix typo in matrix ([5e1547a](#))
- chore(ci): fix copy/paste oopsie ([c6241e7](#))
- chore(ci): add pytest PR annotations ([8f92230](#))
- chore(ci): replace travis with Actions ([8bb73a3](#))

- chore: move .env into docker-compose dir ([55cbd1c](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.5.4-ce.0 ([265dbbd](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.5.3-ce.0 ([d1b0b08](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.5.2-ce.0 ([4a6831c](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.5.1-ce.0 ([348e860](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.5.0-ce.0 ([fc205cc](#))
- chore(docs): always edit the file directly on master

There is no way to edit the raw commit ([35e43c5](#))

- chore(deps): update gitlab/gitlab-ce docker tag to v13.4.3-ce.0 ([bc17889](#))
- chore(cli): remove python2 code ([1030e0a](#))
- chore: apply suggestions ([65ce026](#))
- chore(deps): update python docker tag to v3.9 ([1fc65e0](#))
- chore: simplified search scope constants ([16fc048](#))
- chore: added docs for search scopes constants ([7565bf0](#))
- chore: use helper fixtures for test directories ([40ec2f5](#))
- chore: allow overriding docker-compose env vars for tag ([27109ca](#))
- chore: remove unnecessary random function ([d4ee0a6](#))
- chore(deps): pin dependencies ([14d8f77](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.3.6-ce.0 ([57b5782](#))
- chore(test): remove hacking dependencies ([9384493](#))
- chore(ci): add .readthedocs.yml ([0ad441e](#))
- chore(ci): reduce renovate PR noise ([f4d7a55](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.3.5-ce.0 ([c88d870](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.3.4-ce.0 ([e94c4c6](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.3.3-ce.0 ([667bf01](#))

Documentation

- docs(cli-usage): fixed term ([d282a99](#))
- docs(readme): update supported Python versions ([20b1e79](#))
- docs(cli): use inline anonymous references for external links

There doesn't seem to be an obvious way to use an alias for identical text labels that link to different targets. With inline links we can work around this shortcoming. Until we know better. ([f2cf467](#))

- docs(groups): add example for creating subgroups ([92eb4e3](#))
- docs: clean up grammar and formatting in documentation ([aff9bc7](#))
- docs: add Project Merge Request approval rule documentation ([449fc26](#))
- docs(readme): also add hint to delete gitlab-runner-test

Otherwise the whole testsuite will refuse to run (8894f2d)

- docs(issues): add admin, project owner hint

Closes #1101 ([609c03b](#))

- docs(projects): correct fork docs

Closes #1126 ([54921db](#))

- docs(cli): add example for job artifacts download (375b29d)
- docs(cli): add auto-generated CLI reference (6c21fc8)

Feature

- feat: support multipart uploads ([2fa3004](#))
- feat(tests): test label getter ([a41af90](#))
- feat: add MINIMAL_ACCESS constant

A “minimal access” access level was introduced in GitLab 13.5. ([49eb3ca](#))

- feat: unit tests added ([f37ebf5](#))
- feat: added support for pipeline bridges ([05cbdc2](#))
- feat: adds support for project merge request approval rules (#1199) ([c6fbff39](#))
- feat(api): added wip filter param for merge requests ([d6078f8](#))
- feat(api): added wip filter param for merge requests ([aa6e80d](#))
- feat(api): add support for user identity provider deletion ([e78e121](#))

Fix

- fix(api): use RetrieveMixin for ProjectLabelManager

Allows to get a single label from a project, which was missing before even though the GitLab API has the ability to. ([1a14395](#))

- fix(base): really refresh object

This fixes an error, where deleted attributes would not show up

Fixes #1155 ([e1e0d8c](#))

- fix(cli): write binary data to stdout buffer ([0733ec6](#))
- fix(cli): add missing args for project lists ([c73e237](#))
- fix: docs changed using the consts ([650b65c](#))
- fix: typo ([9baa905](#))
- fix(api): add missing runner access_level param (92669f2)

Refactor

- refactor(tests): split functional tests ([61e43eb](#))

Test

- test: ignore failing test for now ([4b4e253](#))
- test: add test_project_merge_request_approvals.py ([9f6335f](#))
- test(cli): add test for job artifacts download ([f4e7950](#))
- test(env): replace custom scripts with pytest and docker-compose ([79489c7](#))
- test: add unit tests for badges API ([2720b73](#))
- test: add unit tests for resource label events API ([e9a211c](#))

Unknown

- Merge pull request #1273 from python-gitlab/chore/python3-9
chore: officially support and test 3.9 ([48cb89b](#))
- Merge pull request #1230 from manuel-91/patch-1
cli-usage readme: fixed term ([55c8c96](#))
- Merge pull request #1238 from atomrella/install_version_doc

Updated supported Python versions in install doc ([d037a71](#))

- Merge pull request #1255 from bittner/docs/fix-external-links-tokens

Use inline anonymous references for external links ([762f959](#))

- Merge pull request #1251 from hchouraria/patch-1
docs(groups): add example for creating subgroups ([5ac309a](#))
- Merge pull request #1272 from python-gitlab/renovate/pin-dependencies
chore(deps): pin dependency requests-toolbelt to ==0.9.1 ([b567522](#))
- Merge pull request #1233 from python-gitlab/renovate/requests-2.x
chore(deps): update dependency requests to v2.25.1 ([78a02ce](#))

- Merge pull request #1243 from python-gitlab/renovate/docker-gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.8.1-ce.0 ([cc2dd0c](#))

- Merge pull request #1252 from python-gitlab/feat/multipart-uploads

feat: support multipart uploads ([4f8d901](#))

- Merge pull request #1269 from nejch/fix/test-env

chore(ci): bring test environment back to life ([fd179d4](#))

- Merge pull request #1250 from JacobHenner/feature/add-minimal-access

feat: Add MINIMAL_ACCESS constant ([fac0874](#))

- Merge pull request #1263 from ePirat/epirat-fix-get-label

fix(api): add missing GetMixin to ProjectLabelManager ([e61a0f2](#))

- Merge pull request #1200 from robinson96/feature/project_merge_request_approval_rules

Feature/project merge request approval rules ([6035ca8](#))

- Merge pull request #1213 from python-gitlab/fix/delete-attr

fix(base): really refresh object ([af965d4](#))

- Merge pull request #1212 from python-gitlab/chore/docs-edit-on-master

chore(docs): always edit the file directly on master ([ce8460f](#))

- Merge pull request #1211 from python-gitlab/docs/admin-project-owner

docs(issues): add admin, project owner hint ([e5b047d](#))

- Merge pull request #1214 from python-gitlab/docs/readme-gitlab-runner-test

docs(readme): also add hint to delete gitlab-runner-test ([53b4c2f](#))

- Merge pull request #1210 from python-gitlab/docs/projects-correct-fork

docs(projects): correct fork docs ([77ac8c3](#))

- Merge pull request #1202 from python-gitlab/fix/cli-binary-data

fix(cli): write binary data to stdout buffer ([3a38c6d](#))

- Merge pull request #1209 from python-gitlab/docs/cli-reference-page

docs(cli): add auto-generated CLI reference ([9054a3b](#))

- Merge pull request #1131 from valentingregoire/master

feat: added constants for search API ([8cb8040](#))

- Merge pull request #1205 from python-gitlab/refactor/split-functional-tests

refactor(tests): split functional tests ([68a4162](#))

- Merge pull request #1204 from python-gitlab/renovate/docker-python-3.x

chore(deps): update python docker tag to v3.9 ([2002098](#))

- Merge pull request #1203 from intostern/feat/bridge

Added support for pipeline bridges ([c303dab](#))

- Merge pull request #1206 from python-gitlab/fix/cli-project-list-args

fix(cli): add missing args for project lists ([be0afdd](#))

- Merge pull request #1178 from python-gitlab/test/cleanup-env

test(env): replace custom scripts with pytest and docker-compose ([266030a](#))

- Merge pull request #1177 from python-gitlab/renovate/pin-dependencies

chore(deps): pin dependencies ([0d89a6e](#))

- Merge pull request #1189 from python-gitlab/chore/test-hacking-dependency

chore(test): remove hacking dependencies ([d51042a](#))

- Merge pull request #1180 from Shkurupii/add-unitests-for-project-badges

test: add unit tests for badges API ([6bdb7f8](#))

- Merge pull request #1184 from python-gitlab/fix/runner-access-level

fix(api): add missing runner access_level param ([a7c20ca](#))

- Merge pull request #1182 from jlpospisil/allow-mr-search-by-wip

Added MR wip filter param ([74c1e4f](#))

- Merge pull request #1181 from python-gitlab/feat/delete-user-identities

feat(api): add support for user identity provider deletion ([35f9cb8](#))

- Merge pull request #1179 from python-gitlab/chore/readthedocs-yml

chore(ci): add .readthedocs.yml ([49a0032](#))

- Merge pull request #1175 from python-gitlab/chore/noisy-renovate

chore(ci): reduce renovate PR noise ([8d662ab](#))

- Merge pull request #1174 from Shkurupii/add-unittests-for-resource-label-events

Add unit tests for resource label events API ([b1c2045](#))

- Merge pull request #1173 from python-gitlab/renovate/docker-gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.3.5-ce.0 ([24fdbef](#))

- Merge pull request #1172 from python-gitlab/renovate/docker-gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.3.4-ce.0 ([2a6801e](#))

- Merge pull request #1171 from python-gitlab/renovate/docker-gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.3.3-ce.0 ([769367c](#))

7.9.32 v2.5.0 (2020-09-01)

Chore

- chore: bump python-gitlab to 2.5.0 ([56fef01](#))
- chore(deps): update python docker tag to v3.8 ([a8070f2](#))
- chore(deps): update gitlab/gitlab-ce docker tag to v13.3.2-ce.0 ([9fd778b](#))
- chore(test): use pathlib for paths ([5a56b6b](#))
- chore(ci): pin gitlab-ce version for renovate ([cb79fb7](#))
- chore(env): add pre-commit and commit-msg hooks ([82070b2](#))
- chore(ci): use fixed black version ([9565684](#))
- chore: make latest black happy with existing code ([6961479](#))
- chore: update tools dir for latest black version ([f245ffb](#))
- chore: make latest black happy with existing code ([d299753](#))
- chore: update tools dir for latest black version ([c2806d8](#))
- chore: remove unnecessary import ([f337b7a](#))
- chore: make latest black happy with existing code ([4039c8c](#))
- chore: run unittest2pytest on all unit tests ([11383e7](#))
- chore: remove remnants of python2 imports ([402566a](#))

Documentation

- docs(variables): add docs for instance-level variables ([ad4b87c](#))
- docs(packages): add examples for Packages API and cli usage ([a47dfcd](#))
- docs(api): add example for latest pipeline job artifacts ([d20f022](#))
- docs(cli): add examples for group-project list ([af86dcd](#))
- docs: additional project file delete example

Showing how to delete without having to pull the file ([9e94b75](#))

Feature

- feat(api): add support for instance variables ([4492fc4](#))
- feat(api): add support for Packages API ([71495d1](#))
- feat(api): add endpoint for latest ref artifacts ([b7a07fc](#))
- feat: add support to resource milestone events

Fixes #1154 ([88f8cc7](#))

- feat: add share/unshare group with group ([7c6e541](#))

Fix

- fix: wrong reconfirmation parameter when updating user's email

Since version 10.3 (and later), param to not send (re)confirmation when updating an user is `skip_reconfirmation` (and not `skip_confirmation`).

See:

- https://gitlab.com/gitlab-org/gitlab-foss/-/merge_requests/15175?tab=commits
- <https://docs.gitlab.com/11.11/ee/api/users.html#user-modification>
- <https://docs.gitlab.com/ee/api/users.html#user-modification> ([b5c267e](#))
- fix: tests fail when using REUSE_CONTAINER option

Fixes #1146 ([0078f89](#))

- fix: implement Gitlab's behavior change for owned=True ([9977799](#))

Refactor

- refactor: turn objects module into a package ([da8af6f](#))
- refactor: rewrite unit tests for objects with responses ([204782a](#))
- refactor: split unit tests by GitLab API resources ([76b2cad](#))

Test

- test(api): add tests for variables API ([66d108d](#))
- test(packages): add tests for Packages API ([7ea178b](#))
- test: add unit tests for resource milestone events API

Fixes #1154 ([1317f4b](#))

Unknown

- Merge pull request #1170 from python-gitlab/chore/bump-to-2-5-0

chore: bump python-gitlab to 2.5.0 ([784cba6](#))

- Merge pull request #1168 from python-gitlab/renovate/docker-python-3.x

chore(deps): update python docker tag to v3.8 ([cf32499](#))

- Merge pull request #1163 from python-gitlab/feat/instance-variables-api

Feat: add support for instance variables API ([723ca88](#))

- Merge pull request #1167 from python-gitlab/renovate/docker-gitlab-gitlab-ce-13.x

chore(deps): update gitlab/gitlab-ce docker tag to v13.3.2-ce.0 ([6e1ed68](#))

- Merge pull request #1165 from DylannCordel/fix-user-email-reconfirmation

fix: wrong reconfirmation parameter when updating user's email ([97e1dcc](#))

- Merge pull request #1164 from nejch/master

chore(ci): pin gitlab-ce version for renovate ([e6a9ba9](#))

- Merge pull request #1162 from python-gitlab/chore/pre-commit-config

chore(env): add pre-commit and commit-msg hooks ([97d8261](#))

- Merge pull request #1161 from python-gitlab/chore/ci-fixed-black-version

chore(ci): use fixed black version ([28aa17e](#))

- Merge pull request #1157 from Shkurupii/issue-1154

Add support to resource milestone events ([750f4ee](#))

- Merge pull request #1159 from python-gitlab/feat/project-artifacts

Feat: Project job artifacts for latest successful pipeline ([26f95f3](#))

- Merge pull request #1160 from python-gitlab/feat/packages-api

Feat: Add support for packages API ([0f42e32](#))

- Merge branch 'master' into issue-1154 ([fa899d7](#))

- Merge pull request #1156 from python-gitlab/docs/group-projects-list-cli

docs(cli): add examples for group-project list ([a038e95](#))

- Merge pull request #1078 from python-gitlab/refactor/split-unit-tests

Refactor: split unit tests by API resources ([a7e44a0](#))

- Merge pull request #1147 from ericfrederich/fix-1146

fix: tests fail when using REUSE_CONTAINER option ([e2dc9ec](#))

- Merge pull request #1139 from sathieu/share_group_with_group
- feat: add share/unshare the group with a group ([cfa8097](#))
- Merge pull request #1152 from matthew-a-dunlap/doc-project-file-delete-example
- docs: additional project file delete example ([5b92de8](#))

7.9.33 v2.4.0 (2020-07-09)

Chore

- chore: bump version to 2.4.0 ([1606310](#))
- chore: added constants for search API ([8ef53d6](#))

Feature

- feat: added NO_ACCESS const

This constant is useful for cases where no access is granted, e.g. when creating a protected branch.

The NO_ACCESS const corresponds to the definition in https://docs.gitlab.com/ee/api/protected_branches.html ([dab4d0a](#))

Fix

- fix: add masked parameter for variables command ([b6339bf](#))
- fix: do not check if kwargs is none

Co-authored-by: Traian Nedelea <tron1point0@pm.me> ([a349b90](#))

- fix: make query kwargs consistent between call in init and next ([72ffa01](#))
- fix: pass kwargs to subsequent queries in gitlab list ([1d011ac](#))
- fix(merge): parse arguments as query_data ([878098b](#))

Unknown

- Merge pull request #1108 from stuartgunter/master

Added NO_ACCESS const ([3a76d91](#))

- Merge pull request #1092 from aparcar/aparcar-patch-1

Update pipelines_and_jobs.rst ([12a40cc](#))

- Merge pull request #1124 from tyates-indeed/fix-1123

Pass kwargs to subsequent queries in GitlabList (fixes: #1123) ([424a8cb](#))

- Merge pull request #1127 from gervasek/master

Add masked parameter for project-variable and group-variable ([bfb5034](#))

- Merge pull request #1121 from ferhataram/fix/bad-merge-request-arg-parsing

fix(merge): parse arguments as query_data ([1d82310](#))

7.9.34 v2.3.1 (2020-06-09)

Chore

- chore: bump version to 2.3.1 ([870e7ea](#))

Fix

- fix: disable default keyset pagination

Instead we set pagination to offset on the other paths ([e71fe16](#))

Unknown

- Merge pull request #1115 from python-gitlab/fix/keyset-pagination-revert

Fix/keyset pagination revert ([3f585ad](#))

7.9.35 v2.3.0 (2020-06-08)

Chore

- chore: correctly render rst ([f674bf2](#))
- chore: bump to 2.3.0 ([01ff865](#))
- chore(ci): add codecov integration to Travis ([e230568](#))
- chore(test): remove outdated token test ([e6c9fe9](#))
- chore: bring commit signatures up to date with 12.10 ([dc382fe](#))
- chore: fix typo in docstring ([c20f5f1](#))
- chore: remove old builds-email service ([c60e2df](#))
- chore(services): update available service attributes ([7afc357](#))
- chore: use pytest for unit tests and coverage ([9787a40](#))

Ci

- ci: lint fixes ([930122b](#))
- ci: add a test for creating and triggering pipeline schedule ([9f04560](#))

Documentation

- docs(remote_mirrors): fix create command ([1bb4e42](#))
- docs(remote_mirrors): fix create command ([bab91fe](#))
- docs(pipelines): simplify download

This uses a context instead of inventing your own stream handler which makes the code simpler and should be fine for most use cases.

Signed-off-by: Paul Spooren <mail@aparcar.org> ([9a068e0](#))

- docs: update authors ([ac0c84d](#))
- docs(readme): add codecov badge for master ([e21b2c5](#))
- docs(readme): update test docs ([6e2b1ec](#))

Feature

- feat: add group runners api ([4943991](#))
- feat: add play command to project pipeline schedules

fix: remove version from setup

feat: add pipeline schedule play error exception

docs: add documentation for pipeline schedule play ([07b9988](#))

- feat(api): added support in the GroupManager to upload Group avatars ([28eb7ea](#))
- feat: allow an environment variable to specify config location

It can be useful (especially in scripts) to specify a configuration location via an environment variable. If the “PYTHON_GITLAB_CFG” environment variable is defined, treat its value as the path to a configuration file and include it in the set of default configuration locations. ([401e702](#))

- feat(services): add project service list API

Can be used to list available services It was introduced in GitLab 12.7 ([fc52221](#))

- feat(types): add `dir` to RESTObject to expose attributes ([cad134c](#))

Fix

- fix: use keyset pagination by default for /projects > 50000

Workaround for <https://gitlab.com/gitlab-org/gitlab/-/issues/218504>. Remove this in 13.1 ([f86ef3b](#))

- fix(config): fix duplicate code

Fixes #1094 ([ee2df6f](#))

- fix(project): add missing project parameters ([ad8c67d](#))

Test

- test: disable test until Gitlab 13.1 ([63ae77a](#))
- test(runners): add all runners unit tests ([127fa5a](#))
- test(cli): convert shell tests to pytest test cases ([c4ab4f5](#))

Unknown

- Merge pull request #1112 from python-gitlab/fix/rst-renderer

chore: correctly render rst ([1f7dbc8](#))

- Merge pull request #1111 from python-gitlab/chore/bump-version-2-3-0

chore: bump to 2.3.0 ([a16ff3f](#))

- Merge pull request #1110 from python-gitlab/fix/keyset-pagination

Fix keyset pagination in 13.0 ([f10dd38](#))

- Merge pull request #1102 from dotenorio/master

Update doc for remote_mirrors ([ef6181b](#))

- Merge branch ‘master’ of github.com:dotenorio/python-gitlab ([f5f4e12](#))

- Merge pull request #1089 from python-gitlab/feat/group-runners

feat: add group runners api ([38e9fde](#))

- Merge pull request #1087 from python-gitlab/docs/update-authors

docs: update authors ([89007c9](#))

- Merge pull request #1099 from python-gitlab/fix/duplicate-code

fix(config): fix duplicate code ([242cf65](#))

- Merge pull request #1086 from python-gitlab/test/pytest-cli-tests

test(cli): convert CLI shell tests to pytest test cases ([74b3ddc](#))

- Merge pull request #1085 from python-gitlab/chore/codecov-travis

chore(ci): add codecov integration to Travis ([91c1c27](#))

- Merge pull request #1082 from python-gitlab/chore/signature-gpg-x509

chore: bring commit signatures up to date with 12.10 ([5a75310](#))

- Merge pull request #1069 from zillow/feat/add-custom-pipeline-schedule-play

feat: Add play command to project pipeline schedules ([9d66cb3](#))

- Merge pull request #1077 from Flor1an-dev/master

feat(api): added support in the GroupManager to upload Group avatars ([7907e5a](#))

- Merge pull request #1075 from python-gitlab/feat/available-services

feat(services): add project service list API ([dad505c](#))

- Merge pull request #1074 from jeremycline/environment-variable

feat: Allow an environment variable to specify config location ([@c3b717](#))

- Merge pull request #1073 from python-gitlab/docs/readme-test-docs

docs(readme): update test docs ([70cefef4](#))

- Merge pull request #1072 from spyoungtech/feat/restobject-dir

feat(types): add `dir` to RESTObject to expose attributes ([c7c431a](#))

- Merge pull request #1066 from nejch/chore/pytest-for-unit-tests

chore: use pytest to run unit tests and coverage ([efc6182](#))

- Merge pull request #1067 from python-gitlab/fix/missing-project-attributes

fix(project): add missing project parameters ([29fd95e](#))

7.9.36 v2.2.0 (2020-04-07)

Chore

- chore: bump to 2.2.0 ([22d4b46](#))

- chore(group): update group_manager attributes (#1062)

- chore(group): update group_manager attributes

Co-Authored-By: Nejc Habjan <hab.nejc@gmail.com> ([fa34f5e](#))

- chore: rename ExportMixin to DownloadMixin ([847da60](#))

- chore(mixins): factor out export download into ExportMixin ([6ce5d1f](#))

- chore: use raise..from for chained exceptions (#939) ([79fef26](#))

- chore: fix typo in allow_failures ([265bbdd](#))

- chore: pass environment variables in tox ([e06d33c](#))

- chore: improve and document testing against different images ([98d3f77](#))

- chore: remove references to python2 in test env ([6e80723](#))

- chore: clean up for black and flake8 ([4fede5d](#))

- chore: flatten test_import_github ([b8ea96c](#))

- chore: move test_import_github into TestProjectImport ([a881fb7](#))

Documentation

- docs: add docs for Group Import/Export API ([8c3d744](#))

- docs: fix comment of prev_page()

Co-Authored-By: Nejc Habjan <hab.nejc@gmail.com> ([b066b41](#))

- docs: fix comment of prev_page()

Co-Authored-By: Nejc Habjan <hab.nejc@gmail.com> ([ac6b2da](#))

- docs: fix comment of prev_page() ([7993c93](#))

Feature

- feat(api): add support for remote mirrors API (#1056) ([4cfaa2f](#))
- feat(api): add support for Gitlab Deploy Token API ([01de524](#))
- feat(api): add support for Group Import/Export API (#1037) ([6cb9d92](#))
- feat: add support for commit GPG signature API ([da7a809](#))
- feat: add create from template args to ProjectManager

This commit adds the v4 Create project attributes necessary to create a project from a project, instance, or group level template as documented in <https://docs.gitlab.com/ee/api/projects.html#create-project> ([f493b73](#))

Fix

- fix(types): do not split single value string in ListAttribute ([a26e585](#))
- fix: add missing import_project param ([9b16614](#))

Test

- test(api): add tests for group export/import API ([e7b2d6c](#))
- test(types): reproduce get_for_api splitting strings (#1057) ([babd298](#))
- test: create separate module for commit tests ([8c03771](#))
- test: move mocks to top of module ([0bff713](#))
- test: add unit tests for Project Import ([f7aad5f](#))
- test: add unit tests for Project Export ([600dc86](#))
- test: prepare base project test class for more tests ([915587f](#))

Unknown

- Merge pull request #1059 from python-gitlab/fix/raise-from
chore: use raise..from for chained exceptions (#939) ([6749859](#))
 - Merge pull request #1052 from machine424/deploy-tokens-support
feat(api): add support for Gitlab Deploy Token API ([5979750](#))
 - Merge pull request #1064 from python-gitlab/feat/project-remote-mirrors
feat(api): add support for remote mirrors API (#1056) ([3396aa5](#))
 - Merge pull request #1063 from python-gitlab/feat/group-import-export
Feat: support for group import/export API ([c161852](#))
 - Merge pull request #1058 from python-gitlab/fix/listattribute-get-api-splits-string
Fix: ListAttribute get_for_api() splits strings ([50fcd12](#))
 - Merge pull request #1053 from lassimus/master
feat: add create from template args to ProjectManager ([c5904c4](#))
 - Merge pull request #1054 from nejch/chore/cleanup-test-env

chore: improve test environment for upcoming features (8173021)

- Merge pull request #1055 from nejch/feat/commit-gpg-signature

feat: add support for commit GPG signature (1b8e748)

- Merge pull request #1049 from donhui/typo-fix
- docs: fix comment of prev_page() (82deb7d)
- Merge pull request #1040 from nejch/test/project-export-import

test: update tests and params for project export/import (4ffaf1d)

7.9.37 v2.1.2 (2020-03-09)

Chore

- chore: bump version to 2.1.2 (ad7e2bf)

Unknown

- Merge pull request #1045 from python-gitlab/revert-1003-feat/all-keyset-pagination

Revert “feat: use keyset pagination by default for all=True” (6d941bd)

- Revert “feat: use keyset pagination by default for all=True” (6f843b6)

7.9.38 v2.1.1 (2020-03-09)

Chore

- chore: bump version to 2.1.1 (6c5458a)
- chore(user): update user attributes to 12.8 (666f880)

Fix

- fix(docs): additional project statistics example (5ae5a06)

Unknown

- Merge pull request #1043 from python-gitlab/chore/update-user-attributes

chore(user): update user attributes to 12.8 (8c44bb6)

- Merge pull request #1042 from khuedoan98/patch-1

fix(docs): additional project statistics example (be5b15e)

7.9.39 v2.1.0 (2020-03-08)

Chore

- chore: bump version to 2.1.0 ([47cb58c](#))
- chore: fix broken requests links

Another case of the double slash rewrite. ([b392c21](#))

- chore: ensure developers use same gitlab image as Travis ([fab17fc](#))

Documentation

- docs: add reference for REQUESTS_CA_BUNDLE ([37e8d5d](#))
- docs(pagination): clear up pagination docs

Co-Authored-By: Mitar <mitar.git@tnode.com> ([1609824](#))

Feature

- feat(api): add support for GitLab OAuth Applications API ([4e12356](#))
- feat: add support for user memberships API (#1009) ([c313c2b](#))
- feat: add support for commit revert API (#991) ([5298964](#))
- feat: add capability to control GitLab features per project or group ([7f192b4](#))

Fix

- fix(projects): correct copy-paste error ([adc9101](#))
- fix: do not require empty data dict for create() ([99d959f](#))
- fix: remove trailing slashes from base URL (#913) ([2e396e4](#))
- fix(docs): fix typo in user memberships example ([33889bc](#))
- fix: return response with commit data ([b77b945](#))
- fix(objects): add default name data and use http post

Updating approvers new api needs a POST call. Also It needs a name of the new rule, defaulting this to ‘name’. ([70c0cfb](#))

- fix: remove null values from features POST data, because it fails with HTTP 500 ([1ec1816](#))

Performance

- perf: prepare environment when gitlab is reconfigured ([3834d9c](#))

Style

- style: fix black violations ([ad3e833](#))

Test

- test: add unit tests for base URLs with trailing slashes ([32844c7](#))
- test: remove duplicate resp_get_project ([cb43695](#))
- test: use lazy object in unit tests ([31c6562](#))
- test: add unit tests for revert commit API ([d7a3066](#))

Unknown

- Merge pull request #1039 from python-gitlab/fix/set-approvers

Fix/set approvers ([481bd4f](#))

- Merge pull request #1038 from nejch/fix/allow-empty-create-data

Fix: do not require empty data dict for create() ([ca37d23](#))

- Merge pull request #1034 from filipowm/feat/api-oauth-applications

feat(api): add support for GitLab OAuth Applications using Applications API ([e5afb55](#))

- Merge pull request #1032 from nejch/docs/requests-ca-bundle

docs: add reference to REQUESTS_CA_BUNDLE usage ([fbcc820](#))

- Merge pull request #1003 from python-gitlab/feat/all-keyset-pagination

feat: use keyset pagination by default for all=True ([3aa9873](#))

- Merge pull request #1022 from nejch/chore/ensure-latest-image

chore: ensure developers use same gitlab image as CI ([745bdf7](#))

- Merge pull request #1023 from nejch/perf/wait-gitlab-reconfigure

perf: wait for gitlab to reconfigure instead of using hardcoded sleep ([2b3871d](#))

- Merge pull request #1026 from nejch/feat/user-memberships

feat: add support for user memberships API (#1009) ([f071390](#))

- Merge pull request #1027 from nejch/fix/base-url-trailing-slash

Fix: remove trailing slash in base URL ([292dff](#))

- Merge pull request #1020 from nejch/feat/revert-commit-api

feat: add support for commit revert API (#991) ([e8f0921](#))

- Merge pull request #1005 from charlesfayal/fix_set_approvers

change path for set_approvers to new api, with defaulted rule_type an... ([19242c3](#))

- Merge pull request #1008 from filipowm/feature/feature-flags-additional-config

Add capability to control GitLab features per project or group ([066fc9b](#))

7.9.40 v2.0.1 (2020-02-05)

Chore

- chore: revert to 2.0.1

I've misread the tag ([272db26](#))

- chore: bump to 2.1.0

There are a few more features in there ([a6c0660](#))

- chore: bump version to 2.0.1 ([8287a0d](#))
- chore(user): update user attributes

This also workarounds an GitLab issue, where private_profile, would reset to false if not supplied ([27375f6](#))

Documentation

- docs(auth): remove email/password auth ([c9329bb](#))

Feature

- feat: use keyset pagination by default for all=True ([99b4484](#))

Fix

- fix(docs): update to new set approvers call for # of approvers

to set the # of approvers for an MR you need to use the same function as for setting the approvers id. ([8e0c526](#))

- fix(objects): update set_approvers function call

Added a miss paramter update to the set_approvers function ([65ecadc](#))

- fix(docs and tests): update docs and tests for set_approvers

Updated the docs with the new set_approvers arguments, and updated tests with the arg as well. ([2cf12c7](#))

- fix(objects): update to new gitlab api for path, and args

Updated the gitlab path for set_approvers to approvers_rules, added default arg for rule type, and added arg for # of approvals required. ([e512cdd](#))

Unknown

- Merge pull request #1007 from python-gitlab/chore/user-update
chore(user): update user attributes ([f6d9858](#))
- Merge pull request #1000 from matusf/update-auth-docs
Update auth docs ([7843ace](#))

7.9.41 v2.0.0 (2020-01-26)

Chore

- chore: build_sphinx needs sphinx >= 1.7.6
Stepping thru Sphinx versions from 1.6.5 to 1.7.5 build_sphinx fails. Once Sphinx == 1.7.6 build_sphinx finished. ([528dfab](#))
 - chore: enforce python version requirements ([70176db](#))
 - chore: bump to 2.0.0
- Dropping support for legacy python requires a new major version ([c817dcc](#))
- chore: drop legacy python tests
- Support dropped for: 2.7, 3.4, 3.5 ([af8679a](#))
- chore: add PyYaml as extra require ([7ecd518](#))
 - chore: bump minimum required requests version
- for security reasons ([3f78aa3](#))

Documentation

- docs: fix snippet get in project ([3a4ff2f](#))
 - docs(projects): add raw file download docs
- Fixes #969 ([939e9d3](#))

Feature

- feat: add global order_by option to ease pagination ([d187925](#))
- feat: support keyset pagination globally ([0b71ba4](#))
- feat: add appearance API ([4c4ac5c](#))
- feat: add autocompletion support ([973cb8b](#))

Fix

- fix(projects): adjust snippets to match the API ([e104e21](#))

Refactor

- refactor: support new list filters

This is most likely only useful for the CLI ([bded2de](#))

- refactor: remove six dependency ([9fb4645](#))

Test

- test: adjust functional tests for project snippets ([ac0ea91](#))
- test: add project snippet tests ([0952c55](#))

Unknown

- Merge pull request #1001 from python-gitlab/feat/keyset-pagination

Feat/keyset pagination ([df485a9](#))

- Merge pull request #996 from python-gitlab/feat/appearance

feat: add appearance API ([7fd3226](#))

- Merge pull request #988 from jgroom33/patch-3

docs: fix snippet get in project ([afdc43f](#))

- Merge pull request #984 from derekschrock/patch-1

chore: build_sphinx needs sphinx >= 1.7.6 ([fc2ed13](#))

- Merge pull request #982 from python-gitlab/chore/version-requirements

chore: enforce python version requirements ([83fcd1b](#))

- Merge pull request #980 from python-gitlab/refactor/cleanup-upgrade

Refactor/cleanup upgrade ([5fa0e16](#))

- Merge pull request #979 from python-gitlab/fix/project-snippets

Fix/project snippets ([5a10eb3](#))

- Merge pull request #941 from mchlumsky/feat/autocomplete

feat: add autocomplete support ([ec6e04c](#))

7.9.42 v1.15.0 (2019-12-16)

Chore

- chore: bump version to 1.15.0 ([2a01326](#))
- chore(ci): use correct crane ci ([18913dd](#))

Documentation

- docs(projects): fix file deletion docs

The function `file.delete()` requires branch argument in addition to `commit_message`. ([1c4f1c4](#))

- docs: added docs for statistics ([8c84cbf](#))

Feature

- feat: allow cfg timeout to be overrided via kwargs

On startup, the `timeout` parameter is loaded from config and stored on the base gitlab object instance. This instance parameter is used as the timeout for all API requests (it's passed into the `session` object when making HTTP calls).

This change allows any API method to specify a `timeout` argument to `**kwargs` that will override the global timeout value. This was somewhat needed / helpful for the `import_github` method.

I have also updated the docs accordingly. ([e9a8289](#))

- feat: add support for `/import/github`

Addresses python-gitlab/python-gitlab#952

This adds a method to the `ProjectManager` called `import_github`, which maps to the `/import/github` API endpoint. Calling `import_github` will trigger an import operation from `<repo_id>` into `<target_namespace>`, using `<personal_access_token>` to authenticate against github. In practice a gitlab server may take many 10's of seconds to respond to this API call, so we also take the liberty of increasing the default timeout (only for this method invocation).

Unfortunately since `import` is a protected keyword in python, I was unable to follow the endpoint structure with the manager namespace. I'm open to suggestions on a more sensible interface.

I'm successfully using this addition to batch-import hundreds of github repositories into gitlab. ([aa4d41b](#))

- feat: nicer stacktrace ([697cda2](#))
- feat: retry transient HTTP errors

Fixes #970 ([59fe271](#))

- feat: access project's issues statistics

Fixes #966 ([482e57b](#))

- feat: adding project stats

Fixes #967 ([db0b00a](#))

- feat: add variable_type/protected to projects ci variables

This adds the ci variables types and protected flag for create/update requests.

See https://docs.gitlab.com/ee/api/project_level_variables.html#create-variable ([4724c50](#))

- feat: add variable_type to groups ci variables

This adds the ci variables types for create/update requests.

See https://docs.gitlab.com/ee/api/group_level_variables.html#create-variable (0986c93)

Fix

- fix: ignore all parameter, when as_list=True

Closes #962 (137d72b)

Style

- style: format with the latest black version (06a8050)

Test

- test: added tests for statistics (8760efc)
- test: test that all is ignored, when as_list=False (b5e88f3)

Unknown

- Merge pull request #959 from andrew-littlebits/feat/import-github

feat: add support for /import/github (97e1fc)

- Merge pull request #973 from mitar/patch-1

Nicer stacktrace (61eaad2)

- Merge pull request #971 from joolala/ci_vars_type

feat: add more options for project/group ci variables manipulation (938fc0a)

- Merge pull request #974 from python-gitlab/docs/file-deletion-docs

docs(projects): fix file deletion docs (59af4e4)

- Merge pull request #968 from mitar/stats

Stats (62b0b62)

- Merge pull request #972 from mitar/http-retry

Retry transient HTTP errors (36bbd37)

- Merge pull request #963 from python-gitlab/fix/as_list

Fix/as list (3e2d694)

7.9.43 v1.14.0 (2019-12-07)

Chore

- chore: bump version to 1.14.0 ([164fa4f](#))
- chore(ci): switch to crane docker image (#944) ([e0066b6](#))

Documentation

- docs(readme): fix Docker image reference

v1.8.0 is not available.

```
Unable to find image &#39;registry.gitlab.com/python-gitlab/python-gitlab:v1.8.0&#39;;  
↳ locally  
docker: Error response from daemon: manifest for registry.gitlab.com/python-gitlab/  
↳ python-gitlab:v1.8.0 not found: manifest unknown: manifest unknown.  
``` ([`b9a40d8`])https://github.com/python-gitlab/python-gitlab/commit/b9a40d822bcff630a4c92c395c134f8c002ed1cb)  

* docs(snippets): fix snippet docs

Fixes #954 ([`bbaa754`])https://github.com/python-gitlab/python-gitlab/commit/bbaa754673c4a0bffece482fe33e4875ddadc2dc)

* docs: fix typo ([`d9871b1`])https://github.com/python-gitlab/python-gitlab/commit/d9871b148c7729c9e401f43ff6293a5e65ce1838)

* docs: add project and group cluster examples ([`d15801d`])https://github.com/python-gitlab/python-gitlab/commit/d15801d7e7742a43ad9517f0ac13b6dba24c6283)

* docs(changelog): add notice for release-notes on Github (#938) ([`de98e57`])https://github.com/python-gitlab/python-gitlab/commit/de98e572b003ee4cf2c1ef770a692f442c216247)

Feature

* feat: add audit endpoint ([`2534020`])https://github.com/python-gitlab/python-gitlab/commit/2534020b1832f28339ef466d6dd3edc21a521260)

* feat: add project and group clusters ([`ebd053e`])https://github.com/python-gitlab/python-gitlab/commit/ebd053e7bb695124c8117a95eab0072db185ddf9)

* feat: add support for include_subgroups filter ([`abcd83`])https://github.com/python-gitlab/python-gitlab/commit/abcd83fa172af2f3929ba063a0e780395b102d8)

Fix

* fix(project-fork): copy create fix from ProjectPipelineManager ([`516307f`])https://github.com/python-gitlab/python-gitlab/commit/516307f1cc9e140c7d85d0ed0c419679b314f80b)
```

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```
* fix(project-fork): correct path computation for project-fork list ([`44a7c27`](https://github.com/python-gitlab/python-gitlab/commit/44a7c2788dd19c1fe73d7449bd7e1370816fd36d))
```

```
* fix(labels): ensure label.save() works
```

Otherwise, we get:

```
File "gitlabracadabra/mixins/labels.py", line 67, in _process_labels
 current_label.save()
File "gitlab/exceptions.py", line 267, in wrapped_f
 return f(*args, **kwargs)
File "gitlab/v4/objects.py", line 896, in save
 self._update_attrs(server_data)
File "gitlab/base.py", line 131, in _update_attrs
 self.__dict__["_attrs"].update(newAttrs)
TypeError: 'NoneType' object is not iterable
```

Because server\_data is None. ([`727f536`](https://github.com/python-gitlab/python-gitlab/commit/727f53619dba47f0ab770e4e06f1cb774e14f819))

```
* fix: added missing attributes for project approvals
```

Reference: [https://docs.gitlab.com/ee/api/merge\\_request\\_approvals.html#change-configuration](https://docs.gitlab.com/ee/api/merge_request_approvals.html#change-configuration)

Missing attributes:

```
* merge_requests_author_approval
* merge_requests_disable_committers_approval ([`460ed63`](https://github.com/python-gitlab/python-gitlab/commit/460ed63c3dc4f966d6aae1415fdad6de125c6327))
```

### Unknown

```
* Merge pull request #949 from idanbensha/add_audit_events
```

feat: add audit endpoint ([`98e1b0a`](https://github.com/python-gitlab/python-gitlab/commit/98e1b0ae77a627d21ce971ee4df813e1955f69a0))

```
* Merge pull request #958 from vvv/fix-docker-ref
```

README.rst: fix the upstream Docker image reference ([`f6f5178`](https://github.com/python-gitlab/python-gitlab/commit/f6f5178c1dc7aeb3fdbee19b1768e30b2be4f4f4))

```
* Merge pull request #955 from python-gitlab/fix/snippet-docs
```

docs(snippets): fix snippet docs ([`9961aaa`](https://github.com/python-gitlab/python-gitlab/commit/9961aaa1508e08a567c8c66cb194385788b8113e))

```
* Merge pull request #953 from bmwiedemann/master
```

Fix doc typo ([`267a9a1`](https://github.com/python-gitlab/python-gitlab/commit/267a9a151ba9f2338f50fbb118513807ebce9704))

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```

* Merge pull request #947 from lundbird/master

docs: add project and group cluster examples ([`e4cad49`](https://github.com/python-
˓→gitlab/python-gitlab/commit/e4cad490b9cd16aa20ea84bb4bd24a6d25b19411))

* Merge pull request #946 from lundbird/master

feat: add project and group clusters ([`da557c9`](https://github.com/python-gitlab/
˓→python-gitlab/commit/da557c931fa6c6d50c373fc022d88acf1431c24a))

* Merge pull request #943 from choyrim/942-project-fork-list-404

#942: fix up path computation for project-fork list ([`ecad2c8`](https://github.com/
˓→python-gitlab/python-gitlab/commit/ecad2c83635c5e5f7003f61502391446ebc631c9))

* Merge pull request #937 from sathieu/fix_labels_save

fix(labels): ensure label.save() works ([`c937338`](https://github.com/python-gitlab/
˓→python-gitlab/commit/c937338b0119b08b358f97b4716c56777ee7bb80))

* Merge pull request #934 from tymonx/fix-missing-attribute-for-project-approvals

Added missing attributes for project approvals ([`9608886`](https://github.com/python-
˓→gitlab/python-gitlab/commit/960888628617beae75392dcdb6ef5a66abd976d))

* Merge pull request #929 from SVLay/docs/pipeline-variables

docs(pipelines_and_jobs): add pipeline custom variables usage example_
˓→([`4efa6e6`](https://github.com/python-gitlab/python-gitlab/commit/
˓→4efa6e6e5b9b57a3c4eda9ef20a4194b384055dc))

* Merge pull request #932 from ConorNevin/master

Add support for include_subgroups filter ([`1f18230`](https://github.com/python-gitlab/
˓→python-gitlab/commit/1f182302c206502f5202d1707fef69adf527fea7))

v1.13.0 (2019-11-02)

Chore

* chore: bump version to 1.13.0 ([`d0750bc`](https://github.com/python-gitlab/python-
˓→gitlab/commit/d0750bc01ed12952a4d259a13b3917fa404fd435))

* chore(setup): we support 3.8 (#924)

* chore(setup): we support 3.8

* style: format with black ([`6048175`](https://github.com/python-gitlab/python-gitlab/
˓→commit/6048175ef2c21fda298754e9b07515b0a56d66bd))

* chore(ci): update latest docker image for every tag ([`01cbc7a`](https://github.com/
˓→continues on next page))

```

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```
→python-gitlab/python-gitlab/commit/01cbc7ad04a875bea93a08c0ce563ab5b4fe896b))

* chore(dist): add test data

Closes #907 ([`3133ed7`](https://github.com/python-gitlab/python-gitlab/commit/
→3133ed7d1df6f49de380b35331bbcc67b585a61b))

Documentation

* docs(pipelines_and_jobs): add pipeline custom variables usage example
→[`b275eb0`](https://github.com/python-gitlab/python-gitlab/commit/
→b275eb03c5954ca24f249efad8125d1eacadd3ac)

* docs: projects get requires id

Also, add an example value for project_id to the other projects.get()
example. ([`5bd8947`](https://github.com/python-gitlab/python-gitlab/commit/
→5bd8947bd16398aed218f07458aef72e67f2d130))

* docs(project): fix group project example

GroupManager.search is removed since 9a66d78, use list(search='keyword') instead
→[`e680943`](https://github.com/python-gitlab/python-gitlab/commit/
→e68094317ff6905049e464a59731fe4ab23521de)

Feature

* feat: add users activate, deactivate functionality

These were introduced in GitLab 12.4 ([`32ad669`](https://github.com/python-gitlab/
→python-gitlab/commit/32ad66921e408f6553b9d60b6b4833ed3180f549))

* feat: send python-gitlab version as user-agent ([`c22d49d`](https://github.com/python-
→gitlab/python-gitlab/commit/c22d49d084d1e03426cfab0d394330f8ab4bd85a))

* feat: add deployment creation

Added in GitLab 12.4

Fixes #917 ([`ca256a0`](https://github.com/python-gitlab/python-gitlab/commit/
→ca256a07a2cdaf77a5c20e307d334b82fd0fe861))

* feat(test): unused unittest2, type -> isinstance ([`33b1801`](https://github.com/
→python-gitlab/python-gitlab/commit/33b180120f30515d0f76fcf635cb8c76045b1b42))

* feat(doc): remove refs to api v3 in docs ([`6beeaa9`](https://github.com/python-gitlab/
→python-gitlab/commit/6beeaa993f8931d6b7fe682f1afed2bd4c8a4b73))

* feat(auth): remove deprecated session auth ([`b751cdf`](https://github.com/python-
→gitlab/python-gitlab/commit/b751cdf424454d3859f3f038b58212e441faafaf))

Fix
```

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```
* fix(projects): support `approval_rules` endpoint for projects
```

The `approvers` API endpoint is deprecated [1]. GitLab instead uses the `approval\_rules` API endpoint to modify approval settings for merge requests. This adds the functionality for project-level merge request approval settings.

Note that there does not exist an endpoint to `get`; a single approval rule at this moment - only `list`.

```
[1] https://docs.gitlab.com/ee/api/merge_request_approvals.html ([`2cef2bb`](https://github.com/python-gitlab/python-gitlab/commit/2cef2bb40b1f37b97bb2ee9894ab3b9970cef231))
```

### Test

```
* test(projects): support `approval_rules` endpoint for projects ([`94bac44`](https://github.com/python-gitlab/python-gitlab/commit/94bac4494353e4f597df0251f0547513c011e6de))
```

```
* test: remove warning about open files from test_todo()
```

When running unittests python warns that the json file from `test_todo()` was still open. Use `with` to open, read, and create encoded json data that is used by `resp_get_todo()`. ([`d6419aa`](https://github.com/python-gitlab/python-gitlab/commit/d6419aa86d6ad385e15d685bf47242bb6c67653e))

### Unknown

```
* Merge pull request #931 from python-gitlab/choree/1-13-0
```

```
chore: bump version to 1.13.0 ([`f39c68f`](https://github.com/python-gitlab/python-gitlab/commit/f39c68fd0b180ba72dd11e3cbad932d16d4bb484))
```

```
* Merge pull request #919 from appian/project-approval-rules
```

```
fix(projects): support `approval_rules` endpoint for projects ([`fddc25a`](https://github.com/python-gitlab/python-gitlab/commit/fddc25adac16a74f61d81871f9ae13c0227d92d6))
```

```
* Merge pull request #923 from python-gitlab/feat/users-activate-deactivate
```

```
feat: add users activate, deactivate functionality ([`912e16b`](https://github.com/python-gitlab/python-gitlab/commit/912e16b95611715b4df3fae019687f7616af51c1))
```

```
* Merge pull request #922 from python-gitlab/chore/latest-docker-image
```

```
chore(ci): update latest docker image for every tag ([`ac2266b`](https://github.com/python-gitlab/python-gitlab/commit/ac2266b66553cec11740bd5246e23d649606b5ef))
```

```
* Merge pull request #921 from python-gitlab/feat/python-gitlab-agent
```

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```
feat: send python-gitlab version as user-agent ([`8cb5488`](https://github.com/python-
˓→gitlab/python-gitlab/commit/8cb5488142ca7fc7563fac65b434b672a14369fc))

* Merge pull request #920 from python-gitlab/feat/deployment-create

feat: add deployment creation ([`dad6805`](https://github.com/python-gitlab/python-
˓→gitlab/commit/dad68050c1269519f35dcdb29dc94a03f47532c5))

* Merge pull request #916 from python-gitlab/chore/add-test-to-dist

chore(dist): add test data ([`e790b1e`](https://github.com/python-gitlab/python-gitlab/
˓→commit/e790b1ec40ed690152776a87c15e7f7d5d3b9136))

* Merge pull request #914 from terminalimage/issue913

Remove inaccurate projects.get() example ([`d2c9cee`](https://github.com/python-gitlab/
˓→python-gitlab/commit/d2c9ceece5d6473f286e00963252abbcf1a2a17c))

* Merge pull request #911 from xdavidwu/fix-project-doc

docs(project): fix group project example ([`d853a76`](https://github.com/python-gitlab/
˓→python-gitlab/commit/d853a767ac8835615e0fded3087f55ca8594c1ed))

* Merge pull request #906 from jouve/test-cleanup

unused unittest2, type -> isinstance ([`42a1ba6`](https://github.com/python-gitlab/
˓→python-gitlab/commit/42a1ba6be175a9838c589cb1e40636b3910db505))

* Merge pull request #904 from jouve/remove-cred-auth

remove deprecated session auth ([`67a9c1f`](https://github.com/python-gitlab/python-
˓→gitlab/commit/67a9c1f1c62393b02919d25bcc98c3683d92576a))

* Merge pull request #908 from derekschrock/todo-units-test

Remove warning about open files from test_todo() ([`ff808ee`](https://github.com/python-
˓→gitlab/python-gitlab/commit/ff808ee94a73d65802a21ff1350090885d4befd5))

* Merge pull request #905 from jouve/doc-v3

remove references to api v3 in docs ([`92ba028`](https://github.com/python-gitlab/python-
˓→gitlab/commit/92ba0283b63e562e181061252787e0e46da83a29))

v1.12.1 (2019-10-07)

Fix

* fix: fix not working without auth ([`03b7b5b`](https://github.com/python-gitlab/python-
˓→gitlab/commit/03b7b5b07e1fd2872e8968dd6c29bc3161c6c43a))
```

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```
Unknown

* Merge pull request #901 from python-gitlab/fix/non-auth

fix: fix not working without auth ([`f4b2927`](https://github.com/python-gitlab/python-
˓→gitlab/commit/f4b29278771e48320e2da4bacc4544d263d1754c))

v1.12.0 (2019-10-06)

Chore

* chore: bump to 1.12.0 ([`4648128`](https://github.com/python-gitlab/python-gitlab/
˓→commit/46481283a9985ae1b07fe686ec4a34e4a1219b66))

* chore(ci): build test images on tag ([`0256c67`](https://github.com/python-gitlab/
˓→python-gitlab/commit/0256c678ea9593c6371ffff60663f83c423ca872))

Documentation

* docs(project): add submodule docs ([`b5969a2`](https://github.com/python-gitlab/python-
˓→gitlab/commit/b5969a2dcea77fa608cc29be7a5f39062edd3846))

* docs(projects): add note about project list

Fixes #795 ([`44407c0`](https://github.com/python-gitlab/python-gitlab/commit/
˓→44407c0f59b9602b17cfb93b5e1fa37a84064766))

* docs(repository-tags): fix typo

Closes #879 ([`3024c5d`](https://github.com/python-gitlab/python-gitlab/commit/
˓→3024c5dc8794382e281b83a8266be7061069e83e))

* docs(todo): correct todo docs ([`d64edcb`](https://github.com/python-gitlab/python-
˓→gitlab/commit/d64edcb4851ea62e72e3808daf7d9b4fdaaf548b))

Feature

* feat(project): implement update_submodule ([`4d1e377`](https://github.com/python-
˓→gitlab/python-gitlab/commit/4d1e3774706f336e87ebe70e1b373ddb37f34b45))

* feat(ci): improve functionnal tests ([`eefceac`](https://github.com/python-gitlab/
˓→python-gitlab/commit/eefceace2c2094ef41d3da2bf3c46a58a450dcba))

* feat(project): add file blame api

https://docs.gitlab.com/ee/api/repository_files.html#get-file-blame-from-repository
˓→([`f5b4a11`](https://github.com/python-gitlab/python-gitlab/commit/
˓→f5b4a113a298d33cb72f80c94d85bdfec3c4e149))

* feat: add support for job token
```

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See <https://docs.gitlab.com/ee/api/jobs.html#get-job-artifacts> for usage ↵  
↳ [ `cef3aa5` ] (<https://github.com/python-gitlab/python-gitlab/commit/cef3aa51a6928338c6755c3e6de78605fae8e59e>)

\* feat(user): add status api ([ `62c9fe6` ] (<https://github.com/python-gitlab/python-gitlab/commit/62c9fe63a47ddde2792a4a5e9cd1c7aa48661492>))

### Fix

\* fix(cli): fix cli command user-project list ([ `c17d7ce` ] (<https://github.com/python-gitlab/python-gitlab/commit/c17d7ce14f79c21037808894d8c7ba1117779130>))

\* fix(labels): don't mangle label name on update ([ `1fb6f73` ] (<https://github.com/python-gitlab/python-gitlab/commit/1fb6f73f34d501c2b6c86c863d40481e1d7a707fe>))

\* fix(todo): mark\_all\_as\_done doesn't return anything ([ `5066e68` ] (<https://github.com/python-gitlab/python-gitlab/commit/5066e68b398039beb5e1966ba1ed7684d97a8f74>))

### Refactor

\* refactor: remove obsolete test image

Follow up of #896 ([ `a14c02e` ] (<https://github.com/python-gitlab/python-gitlab/commit/a14c02ef85bd4d273b8c7f0f6bd07680c91955fa>))

\* refactor: remove unused code, simplify string format ([ `c7ff676` ] (<https://github.com/python-gitlab/python-gitlab/commit/c7ff676c11303a00da3a570bf2893717d0391f20>))

### Style

\* style: format with black ([ `fef085d` ] (<https://github.com/python-gitlab/python-gitlab/commit/fef085dca35d6b60013d53a3723b4cbf121ab2ae>))

### Test

\* test(submodules): correct test method ([ `e59356f` ] (<https://github.com/python-gitlab/python-gitlab/commit/e59356f6f90d5b01abbe54153441b6093834aa11>))

\* test(func): disable commit test

GitLab seems to be randomly failing here ([ `c9c76a2` ] (<https://github.com/python-gitlab/python-gitlab/commit/c9c76a257d2ed3b394f499253d890c2dd9a01e24>))

\* test(todo): add unittests ([ `7715567` ] (<https://github.com/python-gitlab/python-gitlab/commit/77155678a5d8dbbf11d00f3586307694042d3227>))

\* test(status): add user status test ([ `fec4f9c` ] (<https://github.com/python-gitlab/python-gitlab/commit/fec4f9c23b8ba33bb49dca05d9c3e45cb727e0af>))

\* test: re-enabled py\_func\_v4 test ([ `49d84ba` ] (<https://github.com/python-gitlab/python-gitlab/commit/49d84ba7e95fa343e622505380b3080279b83f00>))

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```
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* Merge pull request #899 from python-gitlab/chore/package-version

chore: bump to 1.12.0 ([`35cc8c7`](https://github.com/python-gitlab/python-gitlab/commit/35cc8c789fda4977add7f399bf426352b1aa246f))

* Merge pull request #898 from python-gitlab/feat/update_submodule

Feat/update submodule ([`6f4332d`](https://github.com/python-gitlab/python-gitlab/commit/6f4332db37b0a609ec4bd5e2c0b7ffc01717599c))

* Merge pull request #897 from python-gitlab/refactor/remove-obsolete-image

refactor: remove obsolete test image ([`fcea41c`](https://github.com/python-gitlab/python-gitlab/commit/fcea41c61f7776cf57ed5001facbc1e77d2834c4))

* Merge pull request #892 from godaji/remove-unused-code

Remove unused code and simplify string format. ([`214f7ef`](https://github.com/python-gitlab/python-gitlab/commit/214f7ef5f3b6e99b7756982c5b883e40d3b22657))

* Merge pull request #896 from jouve/fix-functioonal-test

improve functionnal tests ([`d7d2260`](https://github.com/python-gitlab/python-gitlab/commit/d7d2260945994a9e73fe3f7f9328f3ec9d9c54d4))

* Merge pull request #894 from minitux/master

feat (project): add file blame api ([`082a624`](https://github.com/python-gitlab/python-gitlab/commit/082a62456deaa68274ed1c44a744c79c5356a622))

* Merge pull request #891 from python-gitlab/docs/project-note-list

docs(projects): add note about project list ([`ba2b60e`](https://github.com/python-gitlab/python-gitlab/commit/ba2b60e32c12cacf18762a286d05e073529b9898))

* Merge pull request #886 from LuckySB/cli_user_project

fix cli command user-project list ([`88b1833`](https://github.com/python-gitlab/python-gitlab/commit/88b183376de5b8c986eac24955ef129ca4d781cc))

* Merge pull request #885 from sathieu/patch-1

Don't mangle label name on update ([`ff10726`](https://github.com/python-gitlab/python-gitlab/commit/ff10726d70a62d32ef39398a431def9656c93927))

* Merge pull request #880 from python-gitlab/docs/tags-fix-typo

docs(repository-tags): fix typo ([`c287bdd`](https://github.com/python-gitlab/python-gitlab/commit/c287bdd0889881d89f991d3929ae513d91b5894c))
```

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```
* Merge pull request #878 from python-gitlab/test/todo-unit-test

Test/todo unit test ([`040894d`](https://github.com/python-gitlab/python-gitlab/commit/040894d245709c5c2524d59d2b228a21dd74d1a4))

* Merge pull request #876 from sathieu/job_token

Add support for job token ([`8474829`](https://github.com/python-gitlab/python-gitlab/commit/8474829a3fe40aca8f5d4c1c627908f0830a8f59))

* Merge pull request #875 from python-gitlab/feat/status-api

feat(user): add status api ([`b7f3342`](https://github.com/python-gitlab/python-gitlab/commit/b7f33429c75ed2f464ebd9b4d3c56d3479df3faa))

* Merge pull request #874 from python-gitlab/test/py-fun-test

test: re-enabled py_func_v4 test ([`1490b0e`](https://github.com/python-gitlab/python-gitlab/commit/1490b0e7f175d54cc6d35de7aac6d9e45c0e3d51))

v1.11.0 (2019-08-31)

Chore

* chore: bump package version ([`37542cd`](https://github.com/python-gitlab/python-gitlab/commit/37542cd28aa94ba01d5d289d950350ec856745af))

Feature

* feat: add methods to retrieve an individual project environment ([`29de40e`](https://github.com/python-gitlab/python-gitlab/commit/29de40ee6a20382c293d8cdc8d831b52ad56a657))

* feat: group labels with subscriptable mixin ([`4a9ef9f`](https://github.com/python-gitlab/python-gitlab/commit/4a9ef9f0fa26e01fc6c97cf88b2a162e21f61cce))

Fix

* fix(projects): avatar uploading for projects ([`558ace9`](https://github.com/python-gitlab/python-gitlab/commit/558ace9b007ff9917734619c05a7c66008a4c3f0))

* fix: remove empty list default arguments

Signed-off-by: Frantisek Lachman <flachman@redhat.com> ([`6e204ce`](https://github.com/python-gitlab/python-gitlab/commit/6e204ce819fc8bdd5359325ed7026a48d63f8103))

* fix: remove empty dict default arguments

Signed-off-by: Frantisek Lachman <flachman@redhat.com> ([`8fc8e35`](https://github.com/python-gitlab/python-gitlab/commit/8fc8e35c63d7ebd80408ae002693618ca16488a7))
```

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```

* fix: add project and group label update without id to fix cli ([`a3d0d7c`](https://
 ↵github.com/python-gitlab/python-gitlab/commit/
 ↵a3d0d7c1e7b259a25d9dc84c0b1de5362c80abb8))

Test

* test: add group label cli tests ([`f7f24bd`](https://github.com/python-gitlab/python-
 ↵gitlab/commit/f7f24bd324eaf33aa3d1d5dd12719237e5bf9816))

Unknown

* Merge pull request #865 from orf/retrieve-environment

feat: add methods to retrieve an individual project environment ([`0389e66`](https://
 ↵github.com/python-gitlab/python-gitlab/commit/
 ↵0389e664c0a04021b3df097bacad3940f158607f))

* Merge pull request #861 from ravanscafi/fix-project-avatar

Fix avatar uploading for projects ([`99a9415`](https://github.com/python-gitlab/python-
 ↵gitlab/commit/99a941526a1845559d92b607fd9e2d86efb7e7b6))

* Merge pull request #860 from lachmanfrantisek/fix-mutable-default-arguments

Fix mutable default arguments ([`e8a3585`](https://github.com/python-gitlab/python-
 ↵gitlab/commit/e8a3585ed0e7dfa2f64f6c3378a598120f5f8167))

* Merge pull request #847 from sidisel-albertlopez/feat/grouplabels

feat: Add grouplabel support with subscribable mixin ([`edb3359`](https://github.com/
 ↵python-gitlab/python-gitlab/commit/edb3359fb3a77050d3e162da641445952397279b))

v1.10.0 (2019-07-22)

Chore

* chore: bump package version to 1.10.0 ([`c7c8470`](https://github.com/python-gitlab/
 ↵python-gitlab/commit/c7c847056b6d24ba7a54b93837950b7fdff6c477))

* chore(setup): add 3.7 to supported python versions ([`b1525c9`](https://github.com/
 ↵python-gitlab/python-gitlab/commit/b1525c9a4ca2d8c6c14d745638b3292a71763aeb))

* chore: move checks back to travis ([`b764525`](https://github.com/python-gitlab/python-
 ↵gitlab/commit/b7645251a0d073ca413bba80e87884cc236e63f2))

* chore: disable failing travis test ([`515aa9a`](https://github.com/python-gitlab/
 ↵python-gitlab/commit/515aa9ac2aba132d1dfde0418436ce163fca2313))

* chore(ci): rebuild test image, when something changed ([`2fff260`](https://github.com/
 ↵python-gitlab/python-gitlab/commit/2fff260a8db69558f865dda56f413627bb70d861))

```

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```
* chore(ci): update the GitLab version in the test image ([`c410699`](https://github.com/python-gitlab/python-gitlab/commit/c41069992de392747cccf8c282ac0549932ccd1))
```

```
* chore(ci): fix gitlab PyPI publish ([`3e37df1`](https://github.com/python-gitlab/python-gitlab/commit/3e37df16e2b6a8f1beffc3a595abcb06fd48a17c))
```

```
* chore(ci): add automatic GitLab image pushes ([`95c9b6d`](https://github.com/python-gitlab/python-gitlab/commit/95c9b6dd489fc15c7dfceffca909917f4f3d4312))
```

```
* chore: add a tox job to run black
```

Allow lines to be 88 chars long for flake8. ([`c27fa48`](https://github.com/python-gitlab/python-gitlab/commit/c27fa486698e441ebc16448ee93e5539cb885ced))

```
* chore(ci): use reliable ci system ([`724a672`](https://github.com/python-gitlab/python-gitlab/commit/724a67211bc83d67deef856800af143f1dbd1e78))
```

```
* chore(ci): don't try to publish existing release ([`b4e818d`](https://github.com/python-gitlab/python-gitlab/commit/b4e818db7887ff1ec337aaaf392b5719f3931bc61))
```

```
* chore: release tags to PyPI automatically
```

Fixes #609 ([`3133b48`](https://github.com/python-gitlab/python-gitlab/commit/3133b48a24ce3c9e2547bf2a679d73431dfbefab))

```
* chore(tests): add rate limit tests ([`e216f06`](https://github.com/python-gitlab/python-gitlab/commit/e216f06d4d25d37a67239e93a8e2e400552be396))
```

### Documentation

```
* docs(snippets): fix project-snippets layout
```

Fixes #828 ([`7feb97e`](https://github.com/python-gitlab/python-gitlab/commit/7feb97e9d89b4ef1401d141be3d00b9d0ff6b75c))

```
* docs(projects): add mention about project listings
```

Having exactly 20 internal and 5 private projects in the group spent some time debugging this issue.

Hopefully that helped: <https://github.com/python-gitlab/python-gitlab/issues/93>

Imho should be definitely mention about `all=True` parameter. ([`f604b25`](https://github.com/python-gitlab/python-gitlab/commit/f604b2577b03a6a19641db3f2060f99d24cc7073))

```
* docs(readme): fix six url
```

six URL was pointing to 404 ([`0bc30f8`](https://github.com/python-gitlab/python-gitlab/commit/0bc30f840c9c30dd529ae85bdece6262d2702c94))

```
* docs: re-order api examples
```

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```

`Pipelines and Jobs` and `Protected Branches` are out of order in contents and sometimes
↳ hard to find when looking for examples. ([`5d149a2`](https://github.com/python-gitlab/
↳ python-gitlab/commit/5d149a2262653b729f0105639ae5027ae5a109ea))

* docs: add pipeline deletion ([`2bb2571`](https://github.com/python-gitlab/python-
↳ gitlab/commit/2bb257182c237384d60b8d90cbbff5a0598f283b))

* docs(api-usage): fix project group example

Fixes #798 ([`40a1bf3`](https://github.com/python-gitlab/python-gitlab/commit/
↳ 40a1bf36c2df89daa1634e81c0635c1a63831090))

* docs: remove v3 support ([`7927663`](https://github.com/python-gitlab/python-gitlab/
↳ commit/792766319f7c43004460fc9b975549be55430987))

* docs: Add an example of trigger token usage

Closes #752 ([`ea1eeffe`](https://github.com/python-gitlab/python-gitlab/commit/
↳ ea1eeefef2896420ae4e4d248155e4c5d33b4034e))

* docs(readme): add more info about commitlint, code-format ([`286f703`](https://github.
↳ com/python-gitlab/python-gitlab/commit/286f7031ed542c97fb8792f61012d7448bee2658))

* docs(readme): provide commit message guidelines

Fixes #660 ([`bed8e1b`](https://github.com/python-gitlab/python-gitlab/commit/
↳ bed8e1ba80c73b1d976ec865756b62e66342ce32))

* docs(setup): use proper readme on PyPI ([`6898097`](https://github.com/python-gitlab/
↳ python-gitlab/commit/6898097c45d53a3176882a3d9cb86c0015f8d491))

* docs(groups): fix typo

Fixes #635 ([`ac2d65a`](https://github.com/python-gitlab/python-gitlab/commit/
↳ ac2d65aacba5c19eca857290c5b47ead6bb4356d))

* docs(projects): fix typo in code sample

Fixes #630 ([`b93f2a9`](https://github.com/python-gitlab/python-gitlab/commit/
↳ b93f2a9ea9661521878ac45d70c7bd9a5a470548))

* docs(cli): add PyYAML requirement notice

Fixes #606 ([`d29a489`](https://github.com/python-gitlab/python-gitlab/commit/
↳ d29a48981b521bf31d6f0304b88f39a63185328a))

* docs(readme): add docs build information ([`6585c96`](https://github.com/python-gitlab/
↳ python-gitlab/commit/6585c967732fe2a53c6ad6d4d2ab39aaa68258b0))

* docs: add MR approvals in index ([`0b45afb`](https://github.com/python-gitlab/python-
↳ gitlab/commit/0b45afbeed13745a2f9d8a6ec7d09704a6ab44fb))

```

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```
* docs(api-usage): add rate limit documentation ([`ad4de20`](https://github.com/python-
˓→gitlab/python-gitlab/commit/ad4de20fe3a2fba2d35d4204bf5b0b7f589d4188))

* docs(projects): fix typo ([`c6bcfe6`](https://github.com/python-gitlab/python-gitlab/
˓→commit/c6bcfe6d372af6557547a408a8b0a39b909f0cdf))

* docs: trigger_pipeline only accept branches and tags as ref

Fixes #430 ([`d63748a`](https://github.com/python-gitlab/python-gitlab/commit/
˓→d63748a41cc22bba93a9adf0812e7eb7b74a0161))

* docs: fix invalid Raise attribute in docstrings ([`95a3fe6`](https://github.com/python-
˓→gitlab/python-gitlab/commit/95a3fe6907676109e1cd2f52ca8f5ad17e0d01d0))

* docs: add missing = ([`391417c`](https://github.com/python-gitlab/python-gitlab/commit/
˓→391417cd47d722760dfdaab577e9f419c5dca0e0))

* docs: remove the build warning about _static ([`764d3ca`](https://github.com/python-
˓→gitlab/python-gitlab/commit/764d3ca0087f0536c48c9e1f60076af211138b9b))

* docs: fix "required" attribute ([`e64d0b9`](https://github.com/python-gitlab/
˓→python-gitlab/commit/e64d0b997776387f400eaec21c37ce6e58d49095))

* docs: add missing requiredCreateAttrs ([`b08d74a`](https://github.com/python-gitlab/
˓→python-gitlab/commit/b08d74ac3efb505961971edb998ce430e430d652))

* docs: add a note for python 3.5 for file content update
```

The data passed to the JSON serializer must be a string with python 3.  
Document this in the examples.

```
Fix #175 ([`ca014f8`](https://github.com/python-gitlab/python-gitlab/commit/
˓→ca014f8c3e4877a4cc1ae04e1302fb57d39f47c4))

* docs: improve the pagination section ([`29e2efe`](https://github.com/python-gitlab/
˓→python-gitlab/commit/29e2efeae22ce5fa82e3541360b234e0053a65c2))

* docs: notes API ([`3e026d2`](https://github.com/python-gitlab/python-gitlab/commit/
˓→3e026d2ee62eba3ad92ff2cdd53db19f5e0e9f6a))

* docs: snippets API ([`35b7f75`](https://github.com/python-gitlab/python-gitlab/commit/
˓→35b7f750c7e38a39cd4cb27195d9aa4807503b29))

* docs: tags API ([`dd79eda`](https://github.com/python-gitlab/python-gitlab/commit/
˓→dd79eda78f91fc7e1e9a08b1e70ef48e3b4bb06d))

* docs: system hooks API ([`5c51bf3`](https://github.com/python-gitlab/python-gitlab/
˓→commit/5c51bf3d49302afe4725575a83d81a8c9eeb8779))

* docs: add ApplicationSettings API ([`ab7d794`](https://github.com/python-gitlab/python-
˓→gitlab/commit/ab7d794251bcdafce69b1bde0628cd3b710d784))
```

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```
* docs: repository files API ([`f00340f`](https://github.com/python-gitlab/python-gitlab/
↪commit/f00340f72935b6fd80df7b62b811644b63049b5a))

* docs: project repository API ([`71a2a4f`](https://github.com/python-gitlab/python-
↪gitlab/commit/71a2a4fb84321e73418fda1ce4e4d47177af928c))

* docs: add milestones API ([`7411907`](https://github.com/python-gitlab/python-gitlab/
↪commit/74119073dae18214df1dd67ded6cd57abda335d4))

* docs: add MR API ([`5614a7c`](https://github.com/python-gitlab/python-gitlab/commit/
↪5614a7c9bf62aede3804469b6781f45d927508ea))

* docs: add licenses API ([`4540614`](https://github.com/python-gitlab/python-gitlab/
↪commit/4540614a38067944c628505225bb15928d8e3c93))

* docs: add labales API ([`31882b8`](https://github.com/python-gitlab/python-gitlab/
↪commit/31882b8a57f3f4c7e4c4c4b319af436795ebaf3))

* docs: add deploy keys API ([`ea089e0`](https://github.com/python-gitlab/python-gitlab/
↪commit/ea089e092439a8fe95b50c3d0592358550389b51))

* docs: issues API ([`41cbc32`](https://github.com/python-gitlab/python-gitlab/commit/
↪41cbc32621004aab2cae5f7c14fc60005ef7b966))

* docs: commits API ([`07c5594`](https://github.com/python-gitlab/python-gitlab/commit/
↪07c55943eebb302bc1b8feaf482d929c83e9ebe1))

* docs: groups API documentation ([`4d871aa`](https://github.com/python-gitlab/python-
↪gitlab/commit/4d871aadfaa9f57f5ae9f8b49f8367a5ef58545d))

* docs: Add builds-related API docs ([`8e6a944`](https://github.com/python-gitlab/python-
↪gitlab/commit/8e6a9442324926ed1dec0a8bfaf77792e4bdb10f))

* docs: fork relationship API ([`21f48b3`](https://github.com/python-gitlab/python-
↪gitlab/commit/21f48b357130720551d5ccbc62f5275fe970378))

* docs: project search API ([`e4cd04c`](https://github.com/python-gitlab/python-gitlab/
↪commit/e4cd04c225e2160f02a8f292dbd4c0f6350769e4))

* docs: document hooks API ([`b21dca0`](https://github.com/python-gitlab/python-gitlab/
↪commit/b21dca0acb2c12add229a1742e0c552aa50618c1))

* docs: add project members doc ([`dcf31a4`](https://github.com/python-gitlab/python-
↪gitlab/commit/dcf31a425217efebe56d4cbc8250dceb3844b2fa))

* docs: document projects API ([`967595f`](https://github.com/python-gitlab/python-
↪gitlab/commit/967595f504b8de076ae9218a96c3b8dd6273b9d6))

* docs: crossref improvements ([`6f9f42b`](https://github.com/python-gitlab/python-
↪gitlab/commit/6f9f42b64cb82929af60e299c70773af6d406a6e))
```

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```
* docs: start a FAQ ([`c305459`])(https://github.com/python-gitlab/python-gitlab/commit/
→c3054592f79caa782ec79816501335e9a5c4e9ed))

* docs: do not use the :option: markup ([`368017c`])(https://github.com/python-gitlab/
→python-gitlab/commit/368017c01f15013ab4cc9405c246a86e67f3b067))

Feature

* feat: add mr rebase method ([`bc4280c`])(https://github.com/python-gitlab/python-gitlab/
→commit/bc4280c2fbff115bd5e29a6f5012ae518610f626))

* feat: get artifact by ref and job ([`cda1174`])(https://github.com/python-gitlab/python-
→gitlab/commit/cda117456791977ad300a1dd26dec56009dac55e))

* feat: add support for board update

Closes #801 ([`908d79f`])(https://github.com/python-gitlab/python-gitlab/commit/
→908d79fa56965e7b3afcf23236beef457cfa4b4))

* feat: add support for issue.related_merge_requests

Closes #794 ([`90a3631`])(https://github.com/python-gitlab/python-gitlab/commit/
→90a363154067bcf763043124d172eaf705c8fe90))

* feat: bump version to 1.9.0 ([`aaed448`])(https://github.com/python-gitlab/python-
→gitlab/commit/aaed44837869bd2ce22b6f0d2e1196b1d0e626a6))

* feat: implement artifacts deletion

Closes #744 ([`76b6e1f`])(https://github.com/python-gitlab/python-gitlab/commit/
→76b6e1fc0f42ad00f21d284b4ca2c45d6020fd19))

* feat: add endpoint to get the variables of a pipeline

It adds a new endpoint which was released in the Gitlab CE 11.11.

Signed-off-by: Agustin Henze <tin@redhat.com> ([`564de48`])(https://github.com/
→python-gitlab/python-gitlab/commit/564de484f5ef4c76261057d3d2207dc747da020b))

* feat(GitLab Update): delete ProjectPipeline (#736)

* feat(GitLab Update): delete ProjectPipeline

As of Gitlab 11.6 it is now possible to delete a pipeline - https://docs.gitlab.com/ee/
→api/pipelines.html#delete-a-pipeline ([`768ce19`])(https://github.com/python-gitlab/
→python-gitlab/commit/768ce19c5e5bb197cddd4e3871c175e935c68312))

* feat: Added approve & unapprove method for Mergerequests

Offical GitLab API supports this for GitLab EE ([`53f7de7`])(https://github.com/python-
→gitlab/python-gitlab/commit/53f7de7bfe0056950a8e7271632da3f89e3ba3b3))
```

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```
* feat: obey the rate limit

done by using the retry-after header

Fixes #166 ([`2abf9ab`](https://github.com/python-gitlab/python-gitlab/commit/2abf9abacf834da797f2edf6866e12886d642b9d))

Fix

* fix: improve pickle support ([`b4b5dec`](https://github.com/python-gitlab/python-gitlab/commit/b4b5decb7e49ac16d98d56547a874fb8f9d5492b))

* fix(cli): allow --recursive parameter in repository tree

Fixes #718
Fixes #731 ([`7969a78`](https://github.com/python-gitlab/python-gitlab/commit/7969a78ce8605c2b0195734e54c7d12086447304))

* fix(cli): don't fail when the short print attr value is None

Fixes #717
Fixes #727 ([`8d1552a`](https://github.com/python-gitlab/python-gitlab/commit/8d1552a0ad137ca5e14fabfc75f7ca034c2a78ca))

* fix(cli): fix update value for key not working ([`b766203`](https://github.com/python-gitlab/python-gitlab/commit/b7662039d191ebb6a4061c276e78999e2da7cd3f))

* fix: convert # to %23 in URLs

Refactor a bit to handle this change, and add unit tests.

Closes #779 ([`14f5385`](https://github.com/python-gitlab/python-gitlab/commit/14f538501bfb47c92e02e615d0817675158db3cf))

* fix: pep8 errors

Errors have not been detected by broken travis runs. ([`334f9ef`](https://github.com/python-gitlab/python-gitlab/commit/334f9efb18c95bb5df3271d26fa0a55b7aec1c7a))

* fix(api): Make *MemberManager.all() return a list of objects

Fixes #699 ([`d74ff50`](https://github.com/python-gitlab/python-gitlab/commit/d74ff506ca0aadaba3221fc54cbebb678240564f))

* fix: use python2 compatible syntax for super ([`b08efcb`](https://github.com/python-gitlab/python-gitlab/commit/b08efcb9d155c20fa938534dd2d912f5191eede6))

* fix: re-add merge request pipelines ([`877ddc0`](https://github.com/python-gitlab/python-gitlab/commit/877ddc0dbb664cd86e870bb81d46ca614770b50e))

* fix(api): Don't try to parse raw downloads
```

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http\_get always tries to interpret the retrieved data if the content-type is json. In some cases (artifact download for instance) this is not the expected behavior.

This patch changes http\_get and download methods to always get the raw data without parsing.

Closes #683 ([`35a6d85`])(<https://github.com/python-gitlab/python-gitlab/commit/35a6d85acea4776e9c4ad23ff75259481a6bcf8d>)

\* fix(api): avoid parameter conflicts with python and gitlab

Provide another way to send data to gitlab with a new `query\_parameters` argument. This parameter can be used to explicitly define the dict of items to send to the server, so that \*\*kwargs are only used to specify python-gitlab specific parameters.

Closes #566

Closes #629 ([`4bd027a`])(<https://github.com/python-gitlab/python-gitlab/commit/4bd027aac41c41f7e22af93c7be0058d2faf7fb4>)

\* fix: remove decode() on error\_message string

The integration tests failed because a test called `decode()` on a string-type variable - the GitLabException class handles byte-to-string conversion already in its \_\_init\_\_. This commit removes the call to `decode()` in the test.

Traceback (most recent call last): File “./tools/python\_test\_v4.py”, line 801, in <module> assert ‘Retry later’ in error\_message.decode() AttributeError: ‘str’ object has no attribute ‘decode’ ``` (16bda20)

- fix: handle empty ‘Retry-After’ header from GitLab

When requests are throttled (HTTP response code 429), python-gitlab assumed that ‘Retry-After’ existed in the response headers. This is not always the case and so the request fails due to a KeyError. The change in this commit adds a rudimentary exponential backoff to the ‘http\_request’ method, which defaults to 10 retries but can be set to -1 to retry without bound. (7a3724f)

- fix(api): make reset\_time\_estimate() work again

Closes #672 (cb388d6)

- fix: enable use of YAML in the CLI

In order to use the YAML output, PyYaml needs to be installed on the docker image. This commit adds the installation to the dockerfile as a separate layer. (ad0b476)

- fix: docker entry point argument passing

Fixes the problem of passing spaces in the arguments to the docker entrypoint.

Before this fix, there was virtually no way to pass spaces in arguments such as task description. (67ab637)

- fix(cli): exit on config parse error, instead of crashing
- Exit and hint user about possible errors
- test: adjust test cases to config missing error (6ad9da0)

- fix(docker): use docker image with current sources ([06e8ca8](#))
- fix(cli): print help and usage without config file

Fixes #560 ([6bb4d17](#))

## Refactor

- refactor: format everything black ([318d277](#))
- refactor: rename MASTER\_ACCESS

to MAINTAINER\_ACCESS to follow GitLab 11.0 docs

See: <https://docs.gitlab.com/ce/user/permissions.html#project-members-permissions> ([c38775a](#))

## Style

- style: format with black again ([22b5082](#))

## Test

- test: minor test fixes ([3b523f4](#))
- test: add project releases test

Fixes #762 ([8ff8af0](#))

- test: increase speed by disabling the rate limit faster ([497f56c](#))
- test: always use latest version to test ([82b0fc6](#))
- test: update the tests for GitLab 11.11

Changes in GitLab make the functional tests fail:

- Some actions add new notes and discussions: do not use hardcoded values in related listing asserts
- The feature flag API is buggy (errors 500): disable the tests for now ([622854f](#))

## Unknown

- Merge pull request #842 from python-gitlab/chore/bump-package-version

chore: bump package version to 1.10.0 ([2c1ea56](#))

- Merge pull request #841 from python-gitlab/docs/project-snippets

docs(snippets): fix project-snippets layout ([29d102f](#))

- Merge pull request #840 from python-gitlab/docs/project-docs

docs(projects): add mention about project listings ([de19296](#))

- Merge pull request #838 from python-gitlab/pickle-fix

fix: improve pickle support ([f0e3daa](#))

- Merge pull request #839 from python-gitlab/dajsn-fix-readme-six-url

docs(readme): fix six url ([8d54cf5](#))

- Merge pull request #837 from python-gitlab/PR-bugfix-718

fix(cli): allow –recursive parameter in repository tree ([27b9706](#))

- Merge pull request #836 from python-gitlab/test/project-releases

test: add project releases test ([262b222](#))

- Merge pull request #835 from python-gitlab/bugfix-717

fix(cli): don't fail when the short print attr value is None ([0b0a60f](#))

- Merge pull request #833 from python-gitlab/project-variable-update

fix(cli): fix update value for key not working ([6c673c6](#))

- Merge pull request #834 from python-gitlab/chore/setup-supported-versions

chore(setup): add 3.7 to supported python versions ([8306ef2](#))

- Merge pull request #832 from python-gitlab/test/always-latest

test: always use latest version to test ([8f1ed93](#))

- Merge pull request #823 from jeroen92/rebase-mr

Resolve #822, add mr rebase ([b9877b4](#))

- Merge pull request #831 from python-gitlab/chore/move-back-to-travis

chore: move checks back to travis ([c8a7e31](#))

- Merge pull request #830 from python-gitlab/chore/ci-disable-py-func

Chore/ci disable py func ([2e42e28](#))

- Merge pull request #827 from ahaynssen/master

docs: re-order api examples ([5492b71](#))

- Merge pull request #824 from python-gitlab/feat/add-ref-artifacts

feat: get artifact by ref and job ([4a8503d](#))

- Merge pull request #803 from python-gitlab/feat/related\_mr

feat: add support for issue.related\_merge\_requests ([ad1c0dd](#))

- Merge pull request #804 from python-gitlab/feat/update\_board

feat: add support for board update ([f539c36](#))

- Merge pull request #808 from minitux/patch-1 ([2ea8eb8](#))

- Merge pull request #805 from python-gitlab/chore/ci-rebuild-image

chore(ci): rebuild test image, when something changed ([6625a06](#))

- Merge pull request #802 from python-gitlab/chore/gitlab-11.11.3

chore(ci): update the GitLab version in the test image ([51751c5](#))

- Merge pull request #792 from python-gitlab/chore/enable-gitlab-ci-builds

chore(ci): add automatic GitLab image pushes ([50c53c0](#))

- Merge pull request #800 from python-gitlab/chore/ci-publish

chore(ci): fix gitlab PyPI publish ([722a6ef](#))

- Merge pull request #797 from python-gitlab/feat/version-bump

feat: bump version to 1.9.0 ([4b04432](#))

- Merge pull request #799 from python-gitlab/docs/fix-group-access  
docs(api-usage): fix project group example ([b5aaa3e](#))
- Merge pull request #767 from python-gitlab/fix/744/delete\_artifacts  
feature: Implement artifacts deletion ([4e1dd27](#))
  - Merge pull request #791 from python-gitlab/tests-for-gl-11.11  
test: update the tests for GitLab 11.11 ([e45a6e2](#))
  - Merge pull request #789 from python-gitlab/no-more-v3  
docs: remove v3 support ([e2115b1](#))
  - Merge pull request #785 from agustinhenze/add-pipeline-get-variables-endpoint  
Add new endpoint to get the variables of a pipeline ([463cedc](#))
- Merge pull request #768 from python-gitlab/trigger\_token\_example  
docs: Add an example of trigger token usage ([5af0b52](#))
- Merge pull request #790 from python-gitlab/fix/779  
fix: convert # to %23 in URLs ([101cccd1](#))
  - Merge pull request #788 from python-gitlab/black-in-tox  
Add a tox job to run black ([d135e4e](#))
  - Merge pull request #778 from python-gitlab/docs/readme-code-format  
docs(readme): add more info about commitlint, code-format ([794d64c](#))
  - Merge pull request #775 from python-gitlab/refactor/black  
refactor: format everything black ([290e5ed](#))
  - Merge pull request #776 from python-gitlab/revert-760-custom\_cli\_actions\_fix  
Revert “Custom cli actions fix” ([ef32990](#))
    - Revert “Custom cli actions fix” ([d3a20c5](#))
    - Merge pull request #760 from kkoralsky/custom\_cli\_actions\_fix  
Custom cli actions fix ([e8823e9](#))
    - Merge pull request #759 from kkoralsky/registry\_api  
registry api implementation ([84bcd0](#))
    - Merge pull request #773 from python-gitlab/chore/ci-reliable-system  
chore(ci): use reliable ci system ([3dc6413](#))
      - documentation fix ([2d9078e](#))
      - whitespaces ([c91230e](#))
      - documentation ([4d31b9c](#))
      - fix docstring & improve coding style ([3cede7b](#))
      - register cli action for delete\_in\_bulk ([0b79ce9](#))
      - fix repository\_id marshaling in cli ([340cd37](#))
      - merged new release & registry apis ([910c286](#))

- Merge pull request #769 from python-gitlab/pep-fixes

fix: pep8 errors ([a730598](#))

- Merge pull request #746 from therealgambo/master

add project releases api ([16de1b0](#))

- fix -/\_ replacament for \*Manager custom actions ([6158fd2](#))

- dont ask for id attr if this is \*Manager originating custom action ([adb6305](#))

- Use NoUpdateMixin for now ([8e55a3c](#))

- add project releases api ([3680545](#))

- Merge pull request #714 from jaraco/feature/runpy-invoke

Add runpy hook, allowing invocation with ‘python -m gitlab’. ([a3a7713](#))

- Add runpy hook. Fixes #713.

Allows for invocation with ‘python -m gitlab’ ([cd2a14e](#))

- Merge pull request #738 from jeroendecroos/Gitlab\_from\_config\_inheritance

Make gitlab.Gitlab.from\_config a classmethod ([6bd1902](#))

- Make gitlab.Gitlab.from\_config a classmethod ([0b70da3](#))

- Merge pull request #732 from hakanf/master

Re-enable command specific help messages ([a6e10f9](#))

- Use sys.exit as in rest of code ([6fe2988](#))

- Merge pull request #729 from xarx00/PR-bugfix-716

Fix for #716: %d replaced by %s ([bc973d4](#))

- Re-enable command specific help mesaages

This makes sure that the global help message wont be printed instead of the command spedific one unless we fail to read the configuration file ([a8cadcc](#))

- Fix for #716: %d replaced by %s ([675f879](#))

- Merge pull request #725 from python-gitlab/fix/699

fix(api): Make \*MemberManager.all() return a list of objects ([1792442](#))

- Merge pull request #721 from purificant/fix\_typo

fix tiny typo ([b21fa28](#))

- fix tiny typo ([2023875](#))

- Merge pull request #707 from python-gitlab/fix/python-tests

fix: use python2 compatible syntax for super ([e58d2a8](#))

- Merge pull request #706 from python-gitlab/chore/ci-existing-release

chore(ci): don't try to publish existing release ([39cb97d](#))

- Merge pull request #702 from jpiron/eq\_hash

Implement **eq** and **hash** methods ([a4ea0fe](#))

- Merge pull request #705 from python-gitlab/release-1.8.0

Release version 1.8.0 ([57fa4e3](#))

- Release version 1.8.0 ([4fce338](#))
- Merge pull request #701 from jpiron/fix\_all\_behaviour

Fix all kwarg behaviour ([8ce4e9e](#))

- Implement **eq** and **hash** methods

To ease lists and sets manipulations. ([3d60850](#))

- Fix all kwarg behaviour

`all` kwarg is used to manage GitlabList generator behaviour. However, as it is not popped from kwargs, it is sent to Gitlab API. Some endpoints such as `the project commits` one, support a `all` attribute. This means a call like `project.commits.list(all=True, ref_name='master')` won't return all the master commits as one might expect but all the repository's commits. To prevent confusion, the same kwarg shouldn't be used for 2 distinct purposes. Moreover according to `the documentation`, the `all` project commits API endpoint attribute doesn't seem supported. ([6b2bf5b](#))

- Merge pull request #689 from python-gitlab/fix/wrong-rebase

fix: re-add merge request pipelines ([31bca2f](#))

- Merge pull request #685 from Joustie/master

feat: Added approve method for Mergerequests ([641b80a](#))

- Merge branch 'master' into master ([b51d296](#))
- Merge pull request #687 from python-gitlab/fix/683/raw\_download

fix(api): Don't try to parse raw downloads ([52d7631](#))

- Merge pull request #680 from python-gitlab/chore/automatic-deploy

chore: release tags to PyPI automatically ([ca8c85c](#))

- Merge pull request #681 from python-gitlab/no-param-conflicts

fix(api): avoid parameter conflicts with python and gitlab ([572029c](#))

- Merge pull request #678 from appian/backoff-requests

Fix missing "Retry-After" header and fix integration tests ([89679ce](#))

- Merge pull request #673 from python-gitlab/fix/672

fix(api): make `reset_time_estimate()` work again ([ce2c835](#))

- Merge pull request #664 from python-gitlab/docs/commit-message

docs(readme): provide commit message guidelines ([85ac102](#))

- Merge pull request #659 from python-gitlab/docs/readme-pypi

docs(setup): use proper readme on PyPI ([9be82e1](#))

- Merge pull request #657 from python-gitlab/release-1.7.0

Prepare the 1.7.0 release ([704ca51](#))

- Prepare the 1.7.0 release ([456f3c4](#))
- Merge pull request #656 from esabouraud/feature-protectedbranchesoptions

Issue 653 Add access control options to protected branch creation ([59e3e45](#))

- Add access control options to protected branch creation ([cebbbf6](#))

- Merge pull request #652 from roozbehf/fix/docker-enable-use-of-yaml  
fix: enable use of YAML in the CLI ([728f2dd](#))

- Merge pull request #651 from roozbehf/fix/docker-entrypoint-arguments  
fix: docker entry point argument passing ([f945910](#))

- Merge pull request #641 from python-gitlab/refactor/excpetion\_msg

Improve error message handling in exceptions ([7bd41cb](#))

- Merge pull request #625 from python-gitlab/fix/611/resource\_label\_event

Add support to resource label events ([20eb7d8](#))

- Merge pull request #642 from python-gitlab/feature/589/member\_all

[feature] Add support for members all() method ([22536f3](#))

- [feature] Add support for members all() method

Closes #589 ([ef1523a](#))

- Improve error message handling in exceptions
- Depending on the request Gitlab has a ‘message’ or ‘error’ attribute in the json data, handle both
- Add some consistency by converting messages to unicode or str for exceptions (depending on the python version)

Closes #616 ([1fb1296](#))

- Merge pull request #639 from python-gitlab/fix/628/doc\_typo

[docs] Fix typo in custom attributes example ([011274e](#))

- Merge pull request #638 from python-gitlab/fix/633/milestone\_filter

[docs] Fix the milestone filetring doc (iid -> iids) ([e6df9a8](#))

- [docs] Fix typo in custom attributes example

Closes #628 ([bb251b8](#))

- [docs] Fix the milestone filetring doc (iid -> iids)

Fixes #633 ([@c9a00b](#))

- Add support to resource label events

Closes #611 ([95d0d74](#))

- Merge pull request #634 from python-gitlab/docs/project-typo

docs(projects): fix typo in code sample

Closes #630 ([c8eaeb2](#))

- Merge pull request #636 from python-gitlab/docs/groups-fix-typo

docs(groups): fix typo ([c72a87a](#))

- Merge pull request #627 from nicgrayson/fix-docs-typo

Fix 3 typos in docs ([7f09666](#))

- Fix 3 typos ([a5ab2bb](#))

- Merge pull request #624 from python-gitlab/update/docker-image

Use the pythongitlab/test-python-gitlab docker image for tests ([742243f](#))

- Merge pull request #619 from python-gitlab/issue/595

[docs] Add an example of pipeline schedule vars listing ([fcce7a3](#))

- Merge pull request #626 from python-gitlab/fix/596/maintainer\_wanted

[README] Remove the “maintainer(s) wanted” notice ([bc6ce04](#))

- [README] Remove the “maintainer(s) wanted” notice

Closes #596 ([f51fa19](#))

- [docs] Add an example of pipeline schedule vars listing

Closes #595 ([f7fbfcfa](#))

- Use the pythongitlab/test-python-gitlab docker image for tests

This images is updated to the latest GitLab CE.

Fix the diff() test to match the change in the API output. ([2c6c929](#))

- Merge pull request #620 from bittner/patch-1

Add Gitter badge to README ([74623cf](#))

- Add Gitter badge to README ([31d1c5d](#))
- Merge pull request #613 from mkosiarc/fixDoc

[docs] fix discussions typo ([368a34d](#))

- [docs] fix discussions typo ([54b6a54](#))
- Merge pull request #605 from python-gitlab/fix/docker

fix(docker): use docker image with current sources ([c9f7986](#))

- Merge pull request #608 from python-gitlab/ci-output-option

docs(cli): add PyYAML requirement notice ([156a21e](#))

- Merge pull request #607 from python-gitlab/refactor/rename-variable

refactor: rename MASTER\_ACCESS ([5ff2608](#))

- Merge pull request #601 from max-wittig/fix/help-usage

fix(cli): print help and usage without config file ([32b5122](#))

- Merge pull request #600 from hans-d/docker

more flexible docker ([3a8b1a0](#))

- Merge branch ‘master’ into docker ([756c73c](#))
- Add project protected tags management (#581) ([ea71f1d](#))
- more flexible docker ([21d2577](#))
- README: add a note about maintainers ([77f4d3a](#))
- Merge pull request #586 from Halliburton-Landmark/project-issue-create-args

add missing comma in ProjectIssueManager \_create\_attrs ([58d5c0a](#))

- add missing comma in ProjectIssueManager \_create\_attrs

This fixes the argument handling for assignee/milestone ID when for `project-issue create` ([83fb4f9](#))

- [docs] Add a note about GroupProject limited API ([9e60364](#))

- Fix the https redirection test ([6f80380](#))
- [docs] add a warning about https://

http to https redirection cause problems. Make notes of this in the docs. ([042b706](#))

- [docs] fix cut and paste leftover ([b02c30f](#))
- Use https:// for gitlab URL ([256518c](#))
- [docs] Fix the owned/starred usage documentation

Closes #579 ([ccf0c2a](#))

- 1.6.0 release ([d8c2488](#))
- [cli] Fix the project-export download

Closes #559 ([facbc8c](#))

- Minor doc updates ([e9506d1](#))
- Add a FAQ ([4d4c8ad](#))
- Raise an exception on https redirects for PUT/POST

POST and PUT requests are modified by clients when redirections happen. A common problem with python-gitlab is a misconfiguration of the server URL: the http to https redirection breaks some requests.

With this change python-gitlab should detect problematic redirections, and raise a proper exception instead of failing with a cryptic error.

Closes #565 ([a221d7b](#))

- [docs] Add/updates notes about read-only objects

MR and issues attached to the root API or groups are not editable. Provide notes describing how to manage this. ([80a68f9](#))

- Merge pull request #572 from btmanm/master

Update projects.rst ([ff6ca5d](#))

- Update projects.rst ([6ada4b0](#))
- Merge pull request #569 from mattthias/patch-1

Minor typo “ou” vs. “or” ([0a687d3](#))

- Minor typo “ou” vs. “or”

This change fixes a minor type in the table of possible values for options in the global section. ([a68f459](#))

- Add support for project transfers from the projects interface. (#561)

See <https://docs.gitlab.com/ee/api/projects.html#transfer-a-project-to-a-new-namespace> ([a1c79d2](#))

- Added support for listing forks of a project (#562) ([b325bd7](#))
- MR: add the squash attribute for create/update

Closes #557 ([35c8c82](#))

- Implement MR.pipelines()

Closes #555 ([32ae924](#))

- Support group and global MR listing

Closes #553 ([0379efa](#))

- Project import: fix the override\_params parameter

Closes #552 ([3461904](#))

- [cli] Fix the case where we have nothing to print ([a139179](#))
- [cli] Output: handle bytes in API responses

Closes #548 ([bbbef1f9](#))

- Improve the snippets examples

closes #543 ([bdbec67](#))

- Merge pull request #542 from tpdownes/patch-1

Fix simple typo in identity modification example ([9751ab6](#))

- Fix simple typo in identity modification example ([35fe227](#))
- [docs] don't use hardcoded values for ids ([fe43a28](#))
- 1.5.1 release ([5e6330f](#))
- Improve the protect branch creation example

Closes #536 ([590c41a](#))

- Fix the ProjectPipelineJob base class

Closes #537 ([4cf8118](#))

- Prepare the 1.5.0 release ([eaa4450](#))
- [cli] Fix the non-verbose output of ProjectCommitComment

Closes #433 ([d5289fe](#))

- Use the same description for \*\*kwargs everywhere ([b1c6392](#))
- [docs] Add an example for external identities settings

Fixes #528 ([21e382b](#))

- Revert "make as\_list work for all queries"

This reverts commit 8e787612fa77dc945a4c1327e9faa6eee10c48f2.

This change broke the basic generator usage (Fixes #534) ([1a04634](#))

- Add support for epics API (EE)

Fixes #525 ([ba90e30](#))

- README update ([b2cb700](#))
- ProjectPipelineJob objects can only be listed

And they are not directly related to ProjectJob objects.

Fixes #531 ([e1af0a0](#))

- Add support for the LDAP gorups API ([ebf822c](#))
- Add support for the EE license API ([5183069](#))
- Merge pull request #530 from stefancrain/master

Correct session example ([3f88ad0](#))

- Correct session example ([01969c2](#))

- Implement MR-level approvals

Fixes #323 ([59a19ca](#))

- Add push rules tests ([8df6de9](#))
- Add project push rules configuration (#520) ([2c22a34](#))
- [docs] projects.all() doesn't exist in v4

Fixes #526 ([617aa64](#))

- Pull mirroring doesn't return data ([b610d66](#))
- Add support for Project.pull\_mirror (EE) ([ebd6217](#))
- Add support for board creation/deletion (EE) ([f4c4e52](#))
- Add support for LDAP groups ([d6a61af](#))
- Merge pull request #514 from jouve/generator

make as\_list=False work for all=True queries ([a6512f9](#))

- Add support for issue links (EE)

Fixes #422 ([8873eda](#))

- Add geo nodes API support

Fixes #524 ([39c8ad5](#))

- Merge branch 'master' of github.com:python-gitlab/python-gitlab ([5a855fd](#))
- Merge pull request #522 from beyondliu/master

fix #521 change post\_data default value to None ([6dd8774](#))

- Add basic testing for EE endpoints

Today we don't have a solution for easily deploying an EE instance so using the functional tools is not possible.

This patch provides a testing script that needs to be run against a private EE instance. ([c88333b](#))

- Add support for project-level MR approval configuration ([473dc6f](#))
- fix #521 change post\_data default value to None ([d4c1a8c](#))
- make as\_list work for all queries ([8e78761](#))
- Merge pull request #519 from jouve/silence

silence logs/warnings in unittests ([bbefb99](#))

- silence logs/warnings in unittests ([3fa24ea](#))
- Merge pull request #517 from jouve/dedup

projectpipelinejob was defined twice ([92ca5c4](#))

- projectpipelinejob was defined twice ([17d9354](#))
- Use python 2 on travis for now ([33c2457](#))
- tests: default to python 3

Fix the bytes/str issues ([b3df26e](#))

- Make ProjectCommitStatus.create work with CLI

Fixes #511 ([34c8a03](#))

- time\_stats(): use an existing attribute if available

A time\_stats attribute is returned by GitLab when fetching issues and merge requests (on reasonably recent GitLab versions). Use this info instead of making a new API call if possible.

Fixes #510 ([f2223e2](#))

- Update time stats docs ([f8e6b13](#))
- Fix the IssueManager path to avoid redirections ([eae1805](#))
- Add support for group badges

Also consolidate project/group badges tests, and add some docs

Fixes #469 ([9412a5d](#))

- Merge pull request #507 from Miouge1/badges

Add support for Project badges ([01a41ef](#))

- Add support for the gitlab CI lint API ([40b9f4d](#))
- Update the settings attributes ([0cc9828](#))
- Implement runner token validation ([71368e7](#))
- Runners can be created (registered) ([782875a](#))
- Implement runner jobs listing ([0be81cb](#))
- Add missing project attributes ([096d9ec](#))
- Add pipeline listing filters ([51718ea](#))
- Update MR attributes ([2332904](#))
- Implement the markdown rendering API

Testing will be enable when GitLab 11.0 is available. ([9be50be](#))

- Add support for group boards ([fbcd2010](#))
- Fix the participants() decorator ([8374bcc](#))
- Issues: add missing attributes and methods ([e901f44](#))
- Update some group attributes ([4ec8975](#))
- Add feature flags deletion support ([f082568](#))
- Add support for environment stop() ([9c19e06](#))
- deploy key: add missing attributes ([6779616](#))
- Deployment: add list filters ([ce7911a](#))
- Add commit.merge\_requests() support ([c19ad90](#))
- Enable mr.participant test ([3c53f7f](#))
- Implement commit.refs() ([32569ea](#))
- Add missing docs file ([63a4c7c](#))
- Implement user\_agent\_detail for snippets

Add a new UserAgentDetail mixin to avoid code duplication. ([7025743](#))

- Add support for Project badges ([e00cad4](#))

- Add support for merged branches deletion ([590ea0d](#))
- Add support for the discussions API

Fixes #501 ([4461139](#))

- Document the global per\_page setting ([660f0cf](#))
- Merge pull request #505 from jouve/config\_per\_page

add per\_page config option ([d981904](#))

- add per\_page config option ([589a9aa](#))
- Add support for the search API

Fixes #470 ([97c8619](#))

- Add support for project import/export

Fixes #471 ([b5f9616](#))

- pep8 fix ([42007ec](#))
- Add support for user avatar upload

Fixes #308 ([174185b](#))

- travis-ci: remove the v3 tests ([175abe9](#))
- [docs] update the sphinx extension for v4 objects ([194ed0b](#))
- [docs] Rework the examples pages
- Get rid of the .py files and bring all the python examples in the RST files
- Fix a few things ([5292ffb](#))
- Add release notes for 1.5 ([2c34237](#))
- Drop GetFromListMixin ([09d1ec0](#))
- Drop API v3 support

Drop the code, the tests, and update the documentation. ([fe89b94](#))

- ChangeLog: fix link ([7011694](#))
- Prepare the 1.4.0 release ([3ad706e](#))
- pep8 fix ([e6ecf65](#))
- Deprecate GetFromListMixin

This mixin provides a workaround for get() for GitLab objects that don't implement a 'get a single object' API. We are now getting conflicts because GitLab adds GET methods, and this is against the "Implement only what exists in the API" strategy.

Also use the proper GET API call for objects that support it. ([a877514](#))

- longer docker image startup timeout for tests ([5335788](#))
- Add docs for the `files` arg in `http_*` ([79c4682](#))
- Merge pull request #500 from ericfrederich/efficient\_get

More efficient .get() for group members. ([66d8f30](#))

- More efficient .get() for group members.

Fixes #499 ([dabfeb3](#))

- api-usage: bit more detail for listing with all ([4cc9739](#))
- prepare release notes for 1.4 ([68b798b](#))
- [tests] fix functional tests for python3

Fixes #486 ([3dc997f](#))

- [docs] update service.available() example for API v4

Fixes #482 ([6d4ef0f](#))

- [docs] add a code example for listing commits of a MR

Fixes #491 ([037585c](#))

- [docs] move mr samples in rst file ([a643763](#))
- Merge pull request #484 from Matusf/docs-example-raises-attribute-error

Change method for getting content of snippet ([85f2388](#))

- Fix URL encoding on branch methods

Fixes #493 ([736fece](#))

- Add API v3 example ([5c16c8d](#))
- Merge pull request #488 from siemens/feat/rate-limit

feat: obey the rate limit ([86a8251](#))

- Revert “Token scopes are a list”

This reverts commit 32b399af0e506b38a10a2c625338848a03f0b35d. ([25ed8e7](#))

- Merge pull request #483 from ToonMeynen/patch-2

Update projects.py documentation ([2b9ae5c](#))

- Change method for getting content of snippet ([505c749](#))
- Update projects.py

Add missing attributes to file.create in order to make it work. ([629b1e1](#))

- Merge pull request #481 from max-wittig/docs/fix-typo

docs(projects): fix typo ([f3533cd](#))

- Fix the impersonation token deletion example

Fixes #476 ([c5b9676](#))

- [docs] Move notes examples in their own file

Fixes #472 ([f980707](#))

- Expose additional properties for Gitlab objects
- url: the URL provided by the user (from config or constructor)
- api\_url: the computed base endpoint (URL/api/v?)

Fixes #474 ([f09089b](#))

- Token scopes are a list ([32b399a](#))
- [docs] fix GitLab reference for notes ([33b2b1c](#))
- Provide a basic issue template ([3d8d413](#))

- Get rid of `_sanitize_data`

It was used in one class only, no need for added complexity. ([79dc1f1](#))

- Implement attribute types to handle special cases

Some attributes need to be parsed/modified to work with the API (for instance lists). This patch provides two attribute types that will simplify parts of the code, and fix some CLI bugs.

Fixes #443 ([1940fee](#))

- update docs copyright years ([455a8fc](#))
- [docs] Merge builds.rst and builds.py ([78bb6b5](#))
- Support downloading a single artifact file

Fixes #432 ([9080f69](#))

- pep8 fix ([9cb6bbe](#))
- [cli] Fix listing of strings ([cb8ca65](#))
- Add basic unit tests for v4 CLI ([88391bf](#))
- [cli] Restore the `--help` option behavior

Fixes #381 ([7c6be94](#))

- Add support for recursive tree listing

Fixes #452 ([d35a31d](#))

- [cli] Allow to read args from files

With the `@/file/path` syntax (similar to curl) user can provide values from attributes in files.

Fixes #448 ([748d57e](#))

- [docs] Commits: add an example of binary file creation

Binary files need to be encoded in base64.

Fixes #427 ([c7b3f96](#))

- [docs] Fix the time tracking examples

Fixes #449 ([4a2ae8a](#))

- tests: increase waiting time and hope for the best ([2e51332](#))
- Merge pull request #426 from tardyp/readmixin

introduce RefreshMixin ([ee4591d](#))

- introduce RefreshMixin

RefreshMixin allows to update a REST object so that you can poll on it. This is mostly useful for pipelines and jobs, but could be set on most of other objects, with unknown usecases. ([3424333](#))

- Merge pull request #446 from jwilk-forks/spelling

Fix typos in documentation ([6bcc92a](#))

- Fix typos in documentation ([c976fec](#))
- [cli] `_id_attr` is required on creation ([e65dfa3](#))
- CLI: `display_list` need to support `**kwargs` ([5e27bc4](#))
- [cli] fix listing for json and yaml output

Fixes #438 ([4bdce7a](#))

- Merge pull request #445 from esabouraud/feature-unshare

Add support for unsharing projects with groups ([6c08266](#))

- Add support for unsharing projects to v3 API (untested) ([c8c4b42](#))
- Add support for unsharing projects to v4 API ([5fdd06e](#))
- ProjectKeys can be updated

Closes #444 ([9a30266](#))

- Require requests>=2.4.2

Closes #441 ([a7314ec](#))

- Prepare the 1.3.0 release ([10bd1f4](#))
- Add docs for pipeline schedules ([ac123df](#))
- Move the pipelines doc to builds.rst ([d416238](#))
- Merge pull request #429 from Miouge1/doc-mr-labels

Add documentation about labels update ([@cbd9c6](#))

- Add documentation about labels update ([eb5c149](#))
- pep8 fixes ([e7546de](#))
- Remove pipeline schedules from v3 (not supported) ([@a06779](#))
- Merge branch ‘mlq-feature/pipeline-schedules’ ([39a0429](#))
- Project pipeline jobs ([fd726cd](#))
- Project pipeline schedules ([31eb913](#))
- Update pipeline schedules code ([6a87d38](#))
- Merge pull request #420 from tardyp/patch-2

make trigger\_pipeline return the pipeline ([70c779c](#))

- Merge pull request #419 from tardyp/patch-1

Simplify the example for streamed artifacts ([6ea7ab7](#))

- fix pep8 ([8134f84](#))
- add a Simplified example for streamed artifacts

Going through an object adds a lot of complication. Adding example for unzipping on the fly ([faeb1c1](#))

- Default to API v4 ([f276f13](#))
- Gitlab can be used as context manager

Fixes #371 ([b4f0317](#))

- config: support api\_version in the global section

Fixes #421 ([29bd813](#))

- make trigger\_pipeline return the pipeline

Trigger\_pipeline returns nothing, which makes it difficult to track the pipeline being trigger.

Next PR will be about updating a pipeline object to get latest status (not sure yet the best way to do it) ([72ade19](#))

- Add Gitlab and User events support

Closes #412 ([1ca3080](#))

- Add support for getting list of user projects

Fixes #403 ([96a1a78](#))

- Add support for MR participants API

Fixes #387 ([@8f19b3](#))

- Update the groups documentation

Closes #410 ([638da69](#))

- Fix wrong tag example

Fixes #416 ([e957817](#))

- Add manager for jobs within a pipeline. (#413) ([bdb6d63](#))
- Merge pull request #408 from movermeyer/patch-1

Adding the supported version badge ([5149651](#))

- Merge pull request #409 from movermeyer/patch-2

Clarifying what compatible means ([8a953c2](#))

- Clarifying what supports means ([b980c9f](#))
- Adding the supported version badge ([9253661](#))
- Prepare v1.2.0 ([3a119cd](#))
- Respect content of REQUESTS\_CA\_BUNDLE and \*\_proxy envvars

Explicitly call the requests session.merge\_environment\_settings() method, which will use some environment variables to setup the session properly.

Closes #352 ([6f50447](#))

- Add doc for search by custom attribute ([2e2a78d](#))
- Add support for user/group/project filter by custom attribute

Closes #367 ([65c64eb](#))

- Add support for project and group custom variables

implements parts of #367 ([fa52024](#))

- Add support for features flags

Fixes #360 ([f5850d9](#))

- Add support for pagesdomains

Closes #362 ([c281d95](#))

- Add supported python versions in setup.py ([6923f11](#))
- Add support for subgroups listing

Closes #390 ([928865e](#))

- Add groups listing attributes ([81c9d1f](#))
- Merge pull request #406 from ericfrederich/pagination

Allow per\_page to be used with generators. (79d2ca4)

- Allow per\_page to be used with generators.

Fixes #405 ([3b1d1dd](#))

- Update groups tests

Group search in gitlab 10.3 requires a query string with more than 3 characters. Not sure if feature or bug, but let's handle it. ([7efbc30](#))

- Minor doc update (variables)

Fixes #400 ([70e721f](#))

- Update testing tools for /session removal ([8ad4a76](#))
- Remove now-invalid test ([5a5cd74](#))
- ProjectFile.create(): don't modify the input data

Fixes #394 ([0a38143](#))

- submanagers: allow having undefined parameters

This might happen in CLI context, where recursion to discover parent attributes is not required (URL gets hardcoded)

Fix should fix the CLI CI. ([6f36f70](#))

- [docs] Add a note about password auth being removed from GitLab

Provide a code snippet demonstrating how to use cookie-based authentication.

Fixes #380 ([e08d3fd](#))

- Add missing doc file ([93f1499](#))
- [docstrings] Explicitly documentation pagination arguments

Fixes #393 ([b0ce3c8](#))

- mixins.py: Avoid sending empty update data to issue.save (#389) ([0c3a6cb](#))
- Update project services docs for v4

Fixes #396 ([4e048e1](#))

- Add support for award emojis

Fixes #361 ([b33265c](#))

- Make todo() raise GitlabTodoError on error ([2167409](#))
- Add doc to get issue from iid (#321) ([b775069](#))
- Merge pull request #382 from ptomato/subscribe-response-code

Expected HTTP response for subscribe is 201 ([f624d2e](#))

- Merge pull request #374 from benjamb/typos

Fix typos in docs ([8f3b656](#))

- Update pagination docs for ProjectCommit

In v3 pagination starts at page 0 instead of page 1.

Fixes: #377 ([c6c0686](#))

- Expected HTTP response for subscribe is 201

It seems that the GitLab API gives HTTP response code 201 (“created”) when successfully subscribing to an object, not 200. ([0d5f275](#))

- Fix typos in docs ([7c886de](#))
- Fix link to settings API ([be386b8](#))
- Revert “Add unit tests for mixin exceptions”

This reverts commit 4ee139ad5c58006da1f9af93fdd4e70592e6daa0. ([084b905](#))

- Project pipeline jobs ([b861837](#))
- Project pipeline schedules ([34e32a0](#))
- Add support for project housekeeping

Closes #368 ([9ede652](#))

- Add unit tests for mixin exceptions ([4ee139a](#))
- Add a SetMixin

Use it for UserCustomAttribute, will be useful for {Project,Group}CustomAttribute (#367) ([a1b097c](#))

- Add support for user\_agent\_detail (issues)

<https://docs.gitlab.com/ce/api/issues.html#get-user-agent-details> ([397d677](#))

- Merge pull request #369 from Lujeni/fix\_typo\_projects\_documentation

[docs] Bad arguments in projetc file documentation ([ad35482](#))

- [docs] Bad arguments in projetc file documentation ([5ee4e73](#))
- update user docs with gitlab URLs ([29d8d72](#))
- Add support for user activities ([44a7ef6](#))
- generate coverage reports with tox ([7fadf46](#))
- typo ([2d689f2](#))
- Add support for impersonation tokens API

Closes #363 ([8fec612](#))

- Add missing mocking on unit test ([700e84f](#))
- Add support for oauth and anonymous auth in config/CLI ([0732826](#))
- Rework authentication args handling
- Raise exceptions when conflicting arguments are used
- Build the auth headers when instanciating Gitlab, not on each request
- Enable anonymous Gitlab objects (#364)

Add docs and unit tests ([e9b1583](#))

- Remove deprecated objects/methods ([ba6e09e](#))
- Oauth token support (#357) ([c30121b](#))
- Merge branch ‘master’ of github.com:python-gitlab/python-gitlab ([3bc3e60](#))
- Merge pull request #365 from jeromerobert/master

[doc] Fix project.triggers.create example with v4 API ([30b1c03](#))

- [doc] Fix project.triggers.create example with v4 API ([6c5ee84](#))
- Merge pull request #342 from matejzero/mattermost

Add mattermost service support ([82897b7](#))

- Add users custome attributes support ([4fb2e43](#))
- 1.1.0 release ([32f7e17](#))
- improve comment in release notes ([9eff543](#))
- [doc] Add sample code for client-side certificates

Closes #23 ([fa89746](#))

- Module's base objects serialization (#359)

Make gitlab objects serializable

With current implementation of API v3 and v4 support, some instances have properties of type module and are not serializable. Handle these properties manually with setstate and getstate methods. ([226e6ce](#))

- Pagination generators: expose more information

Expose the X-\* pagination attributes returned by the Gitlab server when requesting lists.

Closes #304 ([38d4467](#))

- Add a contributed Dockerfile

Thanks oupala!

Closes #295 ([fba7730](#))

- Fix the CLI for objects without ID (API v4)

Fixes #319 ([9dd410f](#))

- Update the repository\_blob documentation

Fixes #312 ([d415cc0](#))

- Add support for wiki pages ([5082879](#))
- Move the ProjectManager class for readability ([4744200](#))
- Add support for GPG keys

Closes #355 ([d0c4118](#))

- Add support for group milestones

Closes #349 ([aba713a](#))

- Move group related code for readability ([cf6767c](#))
- Update the ssl\_verify docstring ([4c3aa23](#))
- Project: add support for printing\_merge\_request\_link\_enabled attr

Closes #353 ([3a8c480](#))

- ProjectFileManager: custom update() method

Closes #340 ([fe5805f](#))

- Document the Gitlab session parameter

Provide a proxy setup example.

Closes #341 ([1b5d480](#))

- [docs] document `get_create_attrs` in the API tutorial ([b23e344](#))
- Change ProjectUser and GroupProject base class

python-gitlab shouldn't try to provide features that are not existing in the Gitlab API: GroupProject and ProjectUser objects should not provide unsupported API methods (no get, no create, no update).

This Closes #346 by making explicit that we don't support these non-existent methods. ([8c9ad29](#))

- Remove support for “constructor types” in v4

In v3 we create objects from json dicts when it makes sense. Support for this feature has not been kept in v4, and we didn't get requests for it so let's drop the `_constructor_types` definitions. ([32ea62a](#))

- Snippet notes support all the CRUD methods

Fixes #343 ([dc504ab](#))

- Add mattermost service support ([b5e6a46](#))
- ProjectFileManager.create: handle / in file paths

Replace / with %2F as is done in other methods.

Fixes #339 ([9d0a479](#))

- Add support for listing project users

<https://docs.gitlab.com/ce/api/projects.html#get-project-users>

Closes #328 ([d6fa94e](#))

- [docs] improve the labels usage documentation

Closes #329 ([5945537](#))

- Drop leftover pdb call ([316754d](#))
- Tags release description: support / in tag names ([f3f300c](#))
- [docs] update the file upload samples

Closes #335 ([72664c4](#))

- Make the delete() method handle / in ids

Replace the / with the HTTP %2F as is done with other methods.

Closes #337 ([8764903](#))

- Fix trigger variables in v4 API (#334)

Fix trigger variables in v4 API

Close #333 ([ac430a3](#))

- Prepare the 1.0.2 release ([9e09cf6](#))
- ProjectFile: handle / in path for delete() and save()

Fixes #326 ([05656bb](#))

- Properly handle the labels attribute in ProjectMergeRequest

This should have made it into e09581fc but something went wrong (probably a PEBCAK).

Closes #325 ([69f1045](#))

- [docs] remove example usage of submanagers

Closes #324 ([9484106](#))

- 1.0.1 release ([e5f59bd](#))
- Add missing doc file ([a346f92](#))
- Fix a couple listing calls to allow proper pagination

Project.repository\_tree and Project.repository\_contributors return lists, so use http\_list to allow users to use listing features such as all=True.

Closes #314 ([80351ca](#))

- CommitStatus: sha is parent attribute

Fixes #316 ([7d6f3d0](#))

- Merge pull request #317 from mion00/patch-1

Fix http\_get method in get artifacts and job trace ([d321847](#))

- Fix http\_get method in get artifacts and job trace ([bb5a1df](#))
- exception message: mimic v3 API ([05da7ba](#))
- Exceptions: use a proper error message ([e35563e](#))
- Fix the labels attrs on MR and issues

Fixes #306 ([e09581f](#))

- Fix password authentication for v4

Fixes #311 ([89bf53f](#))

- Merge pull request #309 from mkobit/patch-1

Minor typo fix in “Switching to v4” documentation ([9d6036c](#))

- Minor typo fix in “Switching to v4” documentation ([5841070](#))
- adds project upload feature (#239) ([29879d6](#))
- Merge pull request #307 from RobberPhex/fix-tag-api

Fix tag api ([fd40fce](#))

- add list method ([b537b30](#))
- GitlabError filled by response ([4b36786](#))
- Tag can get by id ([cc249ce](#))
- Update changelog, release notes and authors for v1.0 ([3d8df3c](#))
- Switch the version to 1.0.

The v4 API breaks the compatibility with v3 (at the python-gitlab level), but I believe it is for the greater good. The new code is way easier to read and maintain, and provides more possibilities.

The v3 API will die eventually. ([670217d](#))

- pep8 fix ([d0e2a15](#))
- Improve the docs to make v4 a first class citizen ([60efc83](#))
- [v4] fix CLI for some mixin methods ([0268fc9](#))
- FIX Group.transfer\_project ([947feaf](#))

- tests: faster docker shutdown

Kill the test container violently, no need to wait for a proper shutdown. ([d8db707](#))

- tests: default to v4 API ([0099ff2](#))
- Add support for protected branches

This feature appeared in gitlab 9.5.

Fixes #299 ([c99e399](#))

- Merge branch ‘group-variables’ ([fccccfb](#))
- Add support for group variables ([eb191df](#))
- [v4] More python functional tests ([0e0d4ae](#))
- update tox/travis for CLI v3/4 tests ([311464b](#))
- [tests] Use -n to not use a venv ([5210956](#))
- [v4] Make sudo the first argument in CLI help ([022a0f6](#))
- Fix the v4 CLI tests (id/iid) ([b0af946](#))
- [v4] Fix the CLI for project files ([cda2d59](#))
- Make CLI tests work for v4 as well ([f00562c](#))
- [v4] Use - instead of \_ in CLI legacy output

This mimics the v3 behavior. ([f762cf6](#))

- make v3 CLI work again ([59550f2](#))
- CLI: yaml and json outputs for v4

Verbose mode only works with the legacy output. Also add support for filtering the output by defining the list of fields that need to be displayed (yaml and json only). ([abade40](#))

- [v4] CLI support is back ([9783207](#))
- [v4] drop unused CurrentUserManager.credentials\_auth method ([a4f0c52](#))
- README: mention v4 support ([b919555](#))
- Update the objects doc/examples for v4 ([4057644](#))
- Fix Args attribute in docstrings ([80eab7b](#))
- [v4] Fix getting projects using full namespace ([72e783d](#))
- Fix URL for branch.unprotect ([279704f](#))
- on\_http\_error: properly wrap the function

This fixes the API docs. ([4ed22b1](#))

- [v4] fix the project attributes for jobs

builds\_enabled and public\_builds are now jobs\_enabled and public\_jobs. ([d1e7cc7](#))

- Fix Gitlab.version()

The method was overwritten by the result of the call. ([45c4aa](#)f)

- Merge pull request #294 from wayfair/feature\_internal\_cert\_configuration

Support SSL verification via internal CA bundle ([0e70dd9](#))

- Support SSL verification via internal CA bundle
- Also updates documentation
- See issues #204 and #270 ([4af4748](#))
- Merge pull request #278 from asfaltboy/link-docs-gitlab-token

Docs: Add link to gitlab docs on obtaining a token ([657f011](#))

- update tox/travis test envs ([759f6ed](#))
- Merge branch ‘rework\_api’ ([3ccdec0](#))
- Docs: Add link to gitlab docs on obtaining a token

I find these sort of links very user friendly ([9b8b806](#))

- Make the project services work in v4 ([2816c1a](#))
- Fix v3 tests ([eee39a3](#))
- Update tests for list() changes ([7592ec5](#))
- remove py3.6 from travis tests ([217dc3e](#))
- Restore the previous listing behavior

Return lists by default : this makes the explicit use of pagination work again.

Use generators only when `as_list` is explicitly set to `False`. ([5a4aaafb](#))

- functional tests for v4

Update the python tests for v4, and fix the problems raised when running those tests. ([d7c7911](#))

- Restore correct exceptions

Match the exceptions raised in v3 for v4.

Also update the doc strings with correct information. ([c15ba3b](#))

- Merge pull request #282 from velvetz7/docs\_typo

Fixed repository\_compare examples ([e87835f](#))

- Changed attribution reference ([73be8f9](#))
- Fix merge\_when\_build\_succeeds attribute name

Fixes #285 ([374a6c4](#))

- Fix merge\_when\_build\_succeeds attribute name

Fixes #285 ([67d9a89](#))

- Merge branch ‘master’ into rework\_api ([274b3bf](#))
- Merge pull request #286 from jonafato/python3.6

Declare support for Python 3.6 ([cb8c1a1](#))

- Merge pull request #287 from guyzmo/features/dependency\_injection

Added dependency injection support for Session ([46b7f48](#))

- Added dependency injection support for Session

fixes #280

Signed-off-by: Guyzmo <guyzmo+github+pub@m0g.net> ([116e3d4](#))

- Declare support for Python 3.6

Add Python 3.6 environments to `tox.ini` and `.travis.yml`. ([4c916b8](#))

- fixed repository\_compare examples ([261db17](#))
- remove useless attributes ([fe3a06c](#))
- Refactor the CLI

v3 and v4 CLI will be very different, so start moving things in their own folders.

For now v4 isn't working at all. ([e3d50b5](#))

- Add missing doc files ([fd5ac4d](#))
- typo ([67be226](#))
- build submanagers for v3 only ([ea79bdc](#))
- Fix GroupProject constructor ([afe4b05](#))
- Merge pull request #276 from elisarver/patch-1

Missing expires\_at in GroupMembers update ([f19681f](#))

- minor doc updates ([6e5a6ec](#))
- Fix changelog and release notes inclusion in sdist ([1922cd5](#))
- Rework documentation ([1a7f672](#))
- Missing expires\_at in GroupMembers update

CreateAttrs was set twice in GroupMember due to possible copy-paste error. ([d41e972](#))

- Remove unused future.division import

We don't do math. ([2a0afc5](#))

- add support for objects delete() ([32c704c](#))
- pep8 fixes ([26c0441](#))
- Document switching to v4 ([186e11a](#))
- 0.10 is old history: remove the upgrade doc ([76e9b12](#))
- 0.21.2 release ([19f1b1a](#))
- Add laziness to get()

The goal is to create empty objects (no API called) but give access to the managers. Using this users can reduce the number of API calls but still use the same API to access children objects.

For example the following will only make one API call but will still get the result right:

```
gl.projects.get(49, lazy=True).issues.get(2, lazy=True).notes.list()
```

This removes the need for more complex managers attributes (e.g. `gl.project_issue_notes`) ([61fba84](#))

- Drop invalid doc about raised exceptions ([197ffd7](#))
- Add new event types to ProjectHook ([a0f215c](#))
- Merge pull request #272 from astronouth7303/patch-1

Add new event types to ProjectHook ([4ce2794](#))

- Fix a few remaining methods ([3488c5c](#))

- Add new event types to ProjectHook

These are being returned in the live API, but can't set them. ([1a58f7e](#))

- tests for objects mixins ([68f4114](#))
- Add tests for managers mixins ([b776c5e](#))
- Basic test for GitlabList ([f2c4a6e](#))
- Fix GitlabList.**len** ([15511bf](#))
- Unit tests for REST\* classes ([0d94ee2](#))
- Merge branch 'rework\_api' of [github.com:python-gitlab/python-gitlab](#) into rework\_api ([a5b39a5](#))
- Fixed spelling mistake (#269) ([2b1e0f0](#))
- Tests and fixes for the http\_\* methods ([ff82c88](#))
- make the tests pass ([f754f21](#))
- Migrate all v4 objects to new API

Some things are probably broken. Next step is writting unit and functional tests.

And fix. ([f418767](#))

- Simplify SidekiqManager ([0467f77](#))
- New API: handle gl.auth() and CurrentUser\* classes ([a1c9e2b](#))
- Add support for managers in objects for new API

Convert User\* to the new REST\* API. ([a506902](#))

- pep8 ([9fbdb94](#))
- Move the mixins in their own module ([fb5782e](#))
- Rework the manager and object classes

Add new RESTObject and RESTManager base class, linked to a bunch of Mixin class to implement the actual CRUD methods.

Object are generated by the managers, and special cases are handled in the derivated classes.

Both ways (old and new) can be used together, migrate only a few v4 objects to the new method as a POC.

TODO: handle managers on generated objects (have to deal with attributes in the URLs). ([993d576](#))

- pep8 again ([d809fef](#))
- Add lower-level methods for Gitlab()

Multiple goals:

- Support making direct queries to the Gitlab server, without objects and managers.
- Progressively remove the need to know about managers and objects in the Gitlab class; the Gitlab should only be an HTTP proxy to the gitlab server.
- With this the objects gain control on how they should do requests. The complexities of dealing with object specifics will be moved in the object classes where they belong. ([c5ad540](#))
- import urlencode() from six.moves.urllib.parse instead of from urllib (#268)

Fixes AttributeError on Python 3, as `urlencode` function has been moved to `urllib.parse` module.

`six.moves.urllib.parse.urlencode()` is an py2.py3 compatible alias of `urllib.parse.urlencode()` on Python 3, and of `urllib.urlencode()` on Python 2. ([88900e0](#))

- Tests and fixes for the `http_*` methods ([904c9fa](#))
- make the tests pass ([d0a9334](#))
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Both ways (old and new) can be used together, migrate only a few v4 objects to the new method as a POC.

TODO: handle managers on generated objects (have to deal with attributes in the URLs). ([29e0bae](#))

- pep8 again ([b7298de](#))
- Add lower-level methods for Gitlab()

Multiple goals:

- Support making direct queries to the Gitlab server, without objects and managers.
- Progressively remove the need to know about managers and objects in the Gitlab class; the Gitlab should only be an HTTP proxy to the gitlab server.
- With this the objects gain control on how they should do requests. The complexities of dealing with object specifics will be moved in the object classes where they belong. ([7ddbd5e](#))
- Prepare for v4 API testing ([38bff3e](#))
- [v4] Make project issues work properly
- Use iids instead of ids
- Add required duration argument for `time_estimate()` and `add_spent_time()` ([ac3aef6](#))
- Remove extra\_attrs argument from `_raw_list` (unneeded) ([f3b2855](#))
- pep8 fix ([0663184](#))
- Fix python functional tests ([f733ffb](#))
- [v4] Make MR work properly
- Use iids instead of ids (Fixes #266)

- Add required duration argument for time\_estimate() and add\_spent\_time() ([1ab9ff0](#))
- install doc: use sudo for system commands

Fixes #267 ([a3b8858](#))

- Changelog update ([4bf251c](#))
- Update API docs for v4 ([1ac66bc](#))
- Fix broken docs examples ([746846c](#))
- Prepare the 0.21.1 release ([3ff7d9b](#))
- move changelog and release notes at the end of index ([d75e565](#))
- [v4] Fix the jobs manager attribute in Project ([4f1b952](#))
- Prepare the 0.21 release ([cd9194b](#))
- update copyright years ([ba41e5e](#))
- [v4] Add support for dockerfiles API ([0aa38c1](#))
- [v4] Builds have been renamed to Jobs ([deac5a8](#))
- [v4] Triggers: update object
- Add support for the description attribute
- Add `take_ownership` support
- Triggers now use `id` as identifier ([29e735d](#))
- add a warning about the upcoming v4 as default ([5ea7f84](#))
- Add v4 support to docs ([f2b94a7](#))
- Update release notes for v4 ([627a6aa](#))
- pep8 fix ([03ac8da](#))
- Merge branch ‘v4\_support’ ([766efe6](#))
- [v4] User: drop the manager filters ([dcbb501](#))
- [v4] Remove deprecated objects methods and classes ([8e4b65f](#))
- Deprecate parameter related methods in `gitlab.Gitlab`

These methods change the auth information and URL, and might have some unwanted side effects.

Users should create a new Gitlab instance to change the URL and authentication information. ([7ac1e4c](#))

- pop8 fixes ([441244b](#))
- [v4] Users confirm attribute renamed skip\_confirmation ([cd98903](#))
- [v4] repository tree: s/ref\_name/ref/ ([2dd84e8](#))
- [v4] Try to make the files raw() method work ([0d1ace1](#))
- [v4] Update triggers endpoint and attrs ([0c3fe39](#))
- [v4] Milestones: iid => iids ([449f607](#))
- 202 is expected on some delete operations ([b9eb10a](#))
- [v4] Rename the ACCESS\* variables ([cd18aee](#))
- [v4] GroupManager.search is not needed ([9a66d78](#))

- [v4] Rename the visibility attribute

Also change the value of the `VISIBILITY_*` consts, and move them to the `objects` module root.

TODO: deal the numerical value used by v3. ([27c1e95](#))

- [v4] Remove public attribute for projects ([9b625f0](#))
- [v4] MR s/build/pipeline/ in attributes ([9de53bf](#))
- [v4] Rename branch\_name to branch ([8b75bc8](#))
- [v4] Update (un)subscription endpoints ([90c8958](#))
- [v4] Update user (un)block HTTP methods ([5c8cb29](#))
- [v4] Drop ProjectKeyManager.enable() ([41f141d](#))
- [v4] Add projects.list() attributes

All the `ProjectManager` filter methods can now be handled by `projects.list()`. ([e789cee](#))

- [v4] Update project fork endpoint ([6684c13](#))
- [v4] Update the licenses templates endpoint ([206be8f](#))
- [v4] Update project unstar endpoint ([76ca234](#))
- [v4] Update project keys endpoint ([d71800b](#))
- [v4] Update iid attr for issues and MRs ([9259041](#))
- [v4] `projects.search()` has been removed ([af70ec3](#))
- [v4] Drop teams support ([17dffdf](#))
- Add missing base.py file ([3f7e5f3](#))
- Duplicate the v3/objects.py in v4/

Using imports from v3/objects.py in v4/objects.py will have side effects. Duplication is not the most elegant choice but v4 is the future and v3 will die eventually. ([3aa6b48](#))

- Reorganise the code to handle v3 and v4 objects

Having objects managing both versions will only make the code more complicated, with lots of tests everywhere. This solution might generate some code duplication, but it should be maintainable. ([e853a30](#))

- Update Gitlab `init` docstring ([f373885](#))
- [v4] Update project search API
- `projects.search()` is not implemented in v4
- add the ‘search’ attribute to `projects.list()` ([deecf17](#))
- Initial, non-functional v4 support ([c02dabd](#))
- Add ‘search’ attribute to `projects.list()`

`projects.search()` has been deprecated by Gitlab ([ce3dd0d](#))

- Update URLs to reflect the github changes ([7def297](#))
- Fixed repository\_tree and repository\_blob path encoding (#265) ([f3dfa6a](#))
- MR: add support for time tracking features

Fixes #248 ([324f81b](#))

- Available services: return a list

The method returned a JSON string, which made no sense...

Fixes #258 ([5b90061](#))

- Make GroupProjectManager a subclass of ProjectManager

Fixes #255 ([468246c](#))

- Add support for nested groups (#257) ([5afeeb7](#))
- Add support for priority attribute in labels

Fixes #256 ([5901a1c](#))

- Support milestone start date (#251) ([9561b81](#))
- Merge pull request #249 from guikcd/patch-1

docs: s/corresnding/corresponding/ ([f03613d](#))

- s/corresnding/corresponding/ ([e5c7246](#))
- Feature/milestone merge requests (#247)

Added milestone.merge\_requests() API ([34c7a23](#))

- Update User options for creation and update

Fixes #246 ([9d80699](#))

- Merge pull request #245 from TimNN/mr-time-stats

Add time\_stats to ProjectMergeRequest ([f05a24b](#))

- add time\_stats to ProjectMergeRequest ([63a11f5](#))
- Prepare 0.20 release ([c545504](#))
- Merge pull request #244 from gpocentek/issue/209

Make GroupProject inherit from Project ([20d6678](#))

- Stop listing if recursion limit is hit (#234) ([989f3b7](#))
- Provide API wrapper for cherry picking commits (#236) ([22bf128](#))
- add ‘delete source branch’ option when creating MR (#241) ([8677f1c](#))
- Merge pull request #243 from DmytroLitvinov/fix/bug\_242

Change to correct logic of functions ([cc4fe78](#))

- Change to correct logic of functions ([889bbe5](#))
- Make GroupProject inherit from Project

Fixes #209 ([380bcc4](#))

- Implement pipeline creation API (#237) ([8c27e70](#))
- Properly handle extra args when listing with all=True

Fixes #233 ([3b38844](#))

- Add support for merge request notes deletion

Fixes #227 ([e39d7ea](#))

- Add DeployKey{,Manager} classes

They are the same as Key and KeyManager but the name makes more sense.

Fixes #212 ([a3f2ab1](#))

- Include chanlog and release notes in docs ([ea0759d](#))
- Minor changelog formatting update ([99e6f65](#))
- Make sure that manager objects are never overwritten

Group.projects (manager) can be replaced by a list of Project objects when creating/updating objects. The GroupObject API is more consistent and closer to the GitLab API, so make sure it is always used.

Fixes #209 ([35339d6](#))

- Changelog: improvements. Fixes #229 (#230)
- change indentation so bullet points are not treated as quote
- add links to releases
- add dates to releases
- use releases as headers ([37ee7ea](#))
- Time tracking (#222)
- Added gitlab time tracking features
- get/set/remove estimated time per issue
- get/set/remove time spent per issue
- Added documentation for time tracking functions ([92151b2](#))
- 0.19 release ([cd69624](#))
- {Project,Group}Member: support expires\_at attribute

Fixes #224 ([a273a17](#))

- Handle settings.domain\_whitelist, partly

The API doesn't like receiving lists, although documentation says it's what's expected. To be investigated.

This fixes the tests. ([41ca449](#))

- Merge pull request #216 from ExodusIntelligence/hotfix-issue\_due\_date-215

added due\_date attribute to ProjectIssue ([1e0ae59](#))

- Merge pull request #220 from alexwidener/master

Added pipeline\_events to ProjectHook attrs ([19c7784](#))

- Added pipeline\_events to ProjectHook attrs

Ran tests, all passed. ([3f98e03](#))

- fixes gpocentek/python-gitlab#215 ([58708b1](#))
- document the dynamic aspect of objects ([2f274bc](#))
- Deploy keys: rework enable/disable

The method have been moved to the keys manager class as they don't make sens at all on the project keys themselves.

Update doc and add tests.

Fixes #196 ([492a751](#))

- Merge pull request #210 from comel/services-1

Add builds-email and pipelines-email services ([dad1345](#))

- Add builds-email and pipelines-email services ([5cfa6fc](#))
- deploy keys doc: fix inclusion ([1d827bd](#))
- Merge branch ‘nutztherookie-patch-1’ ([5352c36](#))
- Fix install doc

it's just confusing that it would say “pip” again :) ([4fba82e](#))

- Add support for commit creation

Fixes #206 ([ee666fd](#))

- Add support for project runners

This API allows to enable/disable specific runners for a project, and to list the project associated runners.

Fix #205 ([04435e1](#))

- Support the scope attribute in runners.list() ([de0536b](#))
- Merge pull request #203 from vilhelmen/master

Update project.archive() docs ([c538de7](#))

- Update project.archive() docs ([e7560a9](#))
- Some objects need getRequires to be set to False ([05b3abf](#))
- Forbid empty id for get()

Unless the class explicitly defines it's OK (getRequiresId set to True). ([18415fe](#))

- prepare the 0.18 release ([8028ec7](#))
- sudo: always use strings

The behavior seems to have changed on recent gitlab releases and providing an ID as int doesn't work anymore. Using a string seems to make things work again.

Fixes #193 ([d6c87d9](#))

- Update known attributes for projects

Fixes #181 ([3804661](#))

- Fix duplicated data in API docs

Fixes #190 ([73990b4](#))

- Add functional tests for Snippet ([d3d8baf](#))
- Snippet: content() -> raw()

Using the content() method causes conflicts with the API content attribute. ([064e2b4](#))

- SnippetManager: all() -> public()

Rename the method to make what it does more explicit. ([7453895](#))

- [docs] Add doc for snippets ([bd7d2f6](#))
- Merge branch ‘guyzmo-features/personal\_snippets’ ([0a4d40e](#))
- Merge branch ‘features/personal\_snippets’ of https://github.com/guyzmo/python-gitlab into guyzmo-features/personal\_snippets ([26c8a0f](#))

- [CLI] Fix wrong use of arguments

The previous change removed undefined arguments from the args dict, don't try to use possibly missing arguments without a fallback value. ([b05c0b6](#))

- [CLI] ignore empty arguments

Gitlab 8.15 doesn't appreciate arguments with None as value. This breaks the python-gitlab CLI.

Fixes #199 ([f4fcf45](#))

- [docs] artifacts example: open file in wb mode

Fixes #194 ([35c6bbb](#))

- [docs] update pagination section

First page is page 1.

Fixes #197 ([d86ca59](#))

- Added support for Snippets (new API in Gitlab 8.15)

cf [Gitlab-CE MR !6373](#)

Signed-off-by: Guyzmo <guyzmo+github@m0g.net> ([6022dfe](#))

- Merge pull request #192 from galet/gitlab-8.14-jira

Fix JIRA service editing for GitLab 8.14+ ([15d3362](#))

- Add jira\_issue\_transition\_id to the JIRA service optional fields ([f7e6482](#))
- Fix JIRA service editing for GitLab 8.14+

GitLab simplified the configuration for JIRA service and renamed most of the fields. To maintain backward compatibility all mandatory fields were moved to optional section. ([343c131](#))

- prepare 0.17 release ([932ccd2](#))
- Merge pull request #186 from localmed/fix-should-remove-source-branch

Fix should\_remove\_source\_branch ([39288c8](#))

- Rework requests arguments
- Factorize the code
- Don't send empty auth information to requests (Fixes #188) ([6e5734b](#))
- Fix should\_remove\_source\_branch ([ac2bf24](#))
- Add support for triggering a new build

Fixes #184 ([de05dae](#))

- CLI: add support for project all -all

Rework the extra opts definition to allow setting typed arguments.

Fixes #153 ([f5f734e](#))

- Merge pull request #183 from GregoryEAllen/master

Please add these missing attrs ([840cb89](#))

- Merge pull request #2 from GregoryEAllen/GregoryEAllen-patch-2

Add attr 'updated\_at' to ProjectIssue ([f290b2b](#))

- Merge pull request #1 from GregoryEAllen/GregoryEAllen-patch-1

Add attr ‘created\_at’ to ProjectIssueNote ([14e7ccd](#))

- Add attr ‘updated\_at’ to ProjectIssue ([a25fef5](#))
- Add attr ‘created\_at’ to ProjectIssueNote ([5b24122](#))
- Add support for templates API

Add gitlab CI and gitignores APIs

Rework the templates/license API docs ([570e75d](#))

- Restore the Gitlab.user\_projects manager ([463893f](#))
- Make the manager objects create mor dynamic

For the gitlab.Gitlab object make the detection of “submanagers” more dynamic. This will avoid duplication of definitions.

Update the sphinx extension to add these managers in the list of attributes. ([81e1c13](#))

- Implement merge requests diff support ([92180e4](#))
- Remove deprecated methods

Also deprecate {un,}archive\_() in favor of {un,}archive().

Fix #115 ([c970a22](#))

- Add a ‘report a bug’ link on doc ([258aab4](#))
- Implement **repr** for gitlab objects

Fix #114 ([1833117](#))

- Sphinx ext: factorize the build methods ([7cfbe87](#))
- Fix tuples definition ([6c0a3d9](#))
- pep8 fix ([68c09b7](#))
- API docs: add managers doc in GitlabObject’s ([20143f5](#))
- Build managers on demand on GitlabObject’s ([e57a86b](#))
- Fix docstring for http\_{username,password} ([11c1425](#))
- Rework the API documentation

Update the sphinx extension to add method definition in the docs. This makes the documentation a bit more usable.

Hide attributes that should not have been exposed. They still exist in the code but their documentation doesn’t make much sense. ([be83ff9](#))

- fix line too long ([9f7f45f](#))
- Move deploy key enable/disable to the object

To keep things consistent with other objects, action methods are available on the object itself, not the manager. ([c17ecc0](#))

- Merge branch ‘master-project-deploy-keys’ of https://github.com/Asher256/python-gitlab into Asher256-master-project-deploy-keys ([@c1817f](#))
- add missing files in MANIFEST.in ([12fca84](#))
- ProjectHook: support the token attribute

Fix #170 ([cd5f849](#))

- Project deploy key response code = 201 ([6bedfc3](#))
- Fixing the response and project\_id argument ([72d982b](#))
- Documentation for enable/disable deploy key functions ([f9cb718](#))
- New exception for ProjectKey.enable\_deploy\_key and disable\_deploy\_key ([61d4cac](#))
- enable/disable deploy key methos moved to the class ProjectKey() ([fc5c52c](#))
- Delete is used for ‘/projects/%s/deploy\_keys/%s/disable’ ([67aa795](#))
- Feature: enable / disable the deploy key in a project ([6310d71](#))
- Merge pull request #178 from cgumpert/master

fix bug when retrieving changes for merge request ([4689e73](#))

- fix bug when retrieving changes for merge request

Erroneously a merge request would return its commit when being queried for its changes. ([34d6050](#))

- Merge pull request #172 from xiaopeng163/master

edit doc badge url in README.rst ([ff32514](#))

- edit doc badge url

Signed-off-by: Peng Xiao <xiaoquwl@gmail.com> ([376acda](#))

- Don’t overwrite attributes returned by the server

Fixes #171 ([2c7a999](#))

- README typo ([62058f6](#))
- Add support for the notification settings API ([b15f17b](#))
- Add support for broadcast messages API ([6d3450c](#))
- Add support for Gitlab.version() ([c185fe2](#))
- Add support for boards API

This is not fully usable because the gitlab API has some limitations:

- not possible to create boards programmatically
- not possible to get labels ID (<https://gitlab.com/gitlab-org/gitlab-ce/issues/23448>) ([f332907](#))
- Merge pull request #169 from hakkeroid/allow-iid-parameter-to-request-distinct-objects

Convert response list to single data source for iid requests ([20fdbbe8](#))

- Convert response list to single data source for iid requests ([23b5b6e](#))
- Merge pull request #168 from hakkeroid/pass\_kwarg\_to\_object\_factory

Pass kwarg to object factory ([9da5d69](#))

- Add .tox to ignore to respect default tox settings ([cc151f3](#))
- Pass kwarg to the object factory ([ef69808](#))
- Merge pull request #165 from hakkeroid/patch-1

Fix ProjectBuild.play raising error even on success ([5f444e4](#))

- Fix ProjectBuild.play raises error on success

Running play on ProjectBuild raises a GitlabBuildPlayError although the request was successful. It looks like gitlab returns a 200-OK instead of 201-CREATED response and as such always raises an exception. ([0793271](#))

- README: add badges for pypi and RTD ([945cc66](#))
- Set version to 0.16 ([46ea44a](#))
- prepare the 0.16 release ([117f7f5](#))
- Implement ProjectBuild.play() ([673dc36](#))
- Merge pull request #159 from JonathonReinhart/158-erase-build

Add ProjectBuild.erase() ([d4a24a5](#))

- Update docs to use ProjectBuild.erase() ([3b3930b](#))
- Add ProjectBuild.erase()

We can't use the existing delete() functionality, because GitLab uses POST /projects/:id/builds/:build\_id/erase to erase a build. Instead of overriding delete(), we add a separate erase() method to keep the naming consistent, and allow potentially more fine-grained operations in the future.

- <https://docs.gitlab.com/ce/api/builds.html#erase-a-build> ([c2f45e9](#))
- Workaround gitlab setup failure in tests

While running the functional tests in a venv, the token download sometimes fail. Try to get it multiple times before failing. ([7d424ae](#))

- rework travis and tox setup ([3371e0e](#))
- Use the plural merge\_requests URL everywhere

This breaks compatibility with older gitlab versions but maintaining support for changed APIs is just too complex and time consuming. See issue #139 if you need a workaround.

Fixes #157 ([cb30dd1](#))

- Fix examples for file modification

Fixes #156 ([d09eaa0](#))

- Merge branch ‘master’ of [github.com:gpocentek/python-gitlab](https://github.com/gpocentek/python-gitlab) ([6f7e499](#))
- Add support for –all in CLI

Fixes #153 ([5860421](#))

- Merge pull request #155 from rafaelreyng/add-only\_allow\_merge\_if\_build\_succeeds

add only\_allow\_merge\_if\_build\_succeeds option to project objects ([26d97a7](#))

- break lines too long ([608ebbd](#))
- add only\_allow\_merge\_if\_build\_succeeds option to project objects ([94932a0](#))
- Merge pull request #154 from derek-austin/patch-1

Create a project in a group ([4390afb](#))

- Create a project in a group

Just a sketch, feel free to toss it and do it in the right way. ([b057a94](#))

- Merge pull request #150 from vilhelmen/master

Add branch protection notes ([1e1d467](#))

- Brief branch protection notes

You can pass developers\_can\_push and developers\_can\_merge to the protect function. Handy! ([8a560c6](#))

- Merge pull request #147 from derek-austin/derek-austin-patch-1

Missing coma concatenates array values ([ddba752](#))

- Missing coma concatenates array values

‘enabled\_git\_access\_protocolgravatar\_enabled’ were two distinct values in ApplicationSettings.optionalUpdateAttrs. ([@2a8bf4](#))

- Merge branch ‘master’ of github.com:gpocentek/python-gitlab ([53f9322](#))
- Merge pull request #146 from galet/add-api-url-to-jira-params

JIRA service - add api\_url to optional attributes ([d83b838](#))

- JIRA service - add api\_url to optional attributes

The api\_url attribute is mandatory at least since GitLab 8.11. Otherwise server returns gitlab.exceptions.GitlabUpdateError: 400: 400 (Bad request) “api\_url” not given.

Keep it as optional to maintain backward compatibility with older GitLab versions. ([c8c43ee](#))

- Merge branch ‘master’ of github.com:gpocentek/python-gitlab ([2ac42d6](#))
- Merge pull request #144 from koyaan/master

Add the ability to fork to a specific namespace ([449830f](#))

- fix doc ([@c1c894](#))
- add doc ([648dc86](#))
- fix pep8 ([a692d59](#))
- Add the ability to fork to a specific namespace ([4852462](#))
- 0.15.1 release ([90ad2de](#))
- Properly fix \_raw\_list ([dc3dc1](#))
- ‘path’ is an existing gitlab attr, don’t use it

Use path\_ instead of path as parameter name for methods using it. Otherwise it might conflict with GitlabObject attributes. ([b815f3a](#))

- Fix and test pagination

Fixes #140 ([c08c913](#))

- minor RST fix ([47cb278](#))
- bump version and update changelog ([79f46c2](#))
- Add support for project deployments ([8d7faf4](#))
- Add support for access requests ([40db4cd](#))
- Add support for project pipelines ([8257400](#))
- Add support for project services API ([ef2dbf7](#))
- Remove unused ProjectTagReleaseManager class ([ded5258](#))
- Fix canGet attribute (typo) ([@178f3d](#))
- Remove \_get\_list\_or\_object() and its tests ([451c174](#))
- Let \_data\_for\_gitlab return python data ([a8f6fdd](#))

- Refactor the Gitlab class

Make use of the *raw\** methods in the CRUD methods. ([fe96edf](#))

- fix pep8 test ([e0d226b](#))
- Remove method marked as deprecated 7 months ago ([438dc2f](#))
- Add copyright header to utils.py ([83cb8c0](#))
- Move the constants at the gitlab root level ([2ced9d0](#))
- Add sidekiq metrics support ([23b2a30](#))
- implement the todo API ([131739f](#))
- Update the ApplicationSettings attributes ([1c53ecb](#))
- Fix fork creation documentation

Fixes #136 ([baa09fe](#))

- Run more tests in travis

Travis has some limitations so this patch sets up some tricks to run the functional tests. ([f82f962](#))

- ignore pep8 error ([fa75571](#))
- add a basic HTTP debug method ([c9915a4](#))
- Update changelog/authors/version for 0.14 ([e4624c9](#))
- MR merge(): update the object ([799b593](#))
- MR (un)subscribe: don't fail if state doesn't change ([d7967c6](#))
- Handle empty messages from server in exceptions ([178bfb7](#))
- MR: fix updates ([4a73b85](#))
- fix labels deletion example ([71edeeb](#))
- Fix the listing of some resources

The parent ID wasn't available in the generated objects, leading to exceptions when trying to use specific methods for these objects.

Fixes #132 ([922041d](#))

- MR: get list of changes and commits ([92edb99](#))
- remove debug print statement ([4fd00f8](#))
- Add support for project environments ([5b08d2a](#))
- add support for global deploy key listing ([9bd2cb7](#))
- Merge branch 'master' of [github.com:gpocentek/python-gitlab](#) ([e3ac32f](#))
- add a contributing section in README ([e6ffd69](#))
- doc: replace incorrect archive call() ([e1f5e15](#))
- document namespaces API ([1f52cd2](#))
- Merge pull request #131 from chrwen-omicron/enable\_container\_registry

Added a new project attribute to enable the container registry. ([e0f2290](#))

- Added a new project attribute to enable the container registry. ([d61510e](#))

- Add support from listing group issues ([580f21e](#))
- Docs: drop the FAQ

The only question is now documented in the API examples. ([261f947](#))

- Improve commit statuses and comments

Fixes #92 ([f0fbefc](#))

- tests: don't use deprecated Content method ([741896d](#))
- CLI: refactor \_die() ([99d0177](#))
- doc: fix doubled parameter ([58ddf1d](#))
- Replace Snippet.Content() with a new content() method

This new method use the standard lowercase name and implements data streaming. ([832ed9f](#))

- fix unit tests ([3198ead](#))
- Groups can be updated ([048b1cf](#))
- Add missing args in docstrings ([075345a](#))
- Allow to stream the downloads when appropriate

Some API calls will download possibly large data, resulting in a high memory usage and out-of-memory errors. For these API calls use the requests streaming capabilities and download chunked data. The caller is responsible of providing a callable to actually store the data.

The default callable just prints the data on stdout. ([94aea52](#))

- Implement ProjectBuild.keep\_artifacts ([e0cf1c2](#))
- Gitlab: add managers for build-related resources ([b339ed9](#))
- Implement runners global API ([6eb11fd](#))
- Add docstring for settings manager in Gitlab class ([52c8825](#))
- Fix pep8 test ([63f0c4d](#))
- implement CLI for project archive/unarchive/share ([fc68e9b](#))
- Implement sharing project with a group ([e7c4125](#))
- Fix ProjectMember update ([2df4c9e](#))
- Update ProjectSnippet attributes

'visibility\_level' has been added as an optional attribute to keep compatibility with older releases of gitlab.

Fixes #129 ([3ad612d](#))

- Implement archive/unarchive for a project

The methods are called archive\_ and unarchive\_ to workaround a conflict with the deprecated archive method. Method will be renamed when the archive method is removed. ([7ed34ed](#))

- Fix the Project.archive call ([565c35e](#))
- Project: add VISIBILITY\_\* constants

They should be there instead of having them in the Group class. Variables in Group are kept for compatibility. ([2457823](#))

- Implement user emails support ([0be4761](#))

- document users API ([9ba2d89](#))
- Add branches API documentation ([cdd801e](#))
- Merge pull request #128 from rafaeleyng/feat/add-note-events-to-project-hook

add note\_events to project hooks attributes ([c88c638](#))

- add note\_events to project hooks attributes ([ca662e2](#))
- MR: add (un)subscribe support ([867b7ab](#))
- Merge branch ‘label-subscribe’ ([d340d31](#))
- Add support for label (un)subscribe ([6f29fff1](#))
- add support for namespaces ([79feb87](#))
- milestone: optional listing attrs ([dbad3bd](#))
- update ProjectLabel attributes ([c55fd4b](#))
- Add support for project-issue move ([73627a2](#))
- project issue: proper update attributes ([ca68f6d](#))
- issues: add missing optional listing parameters ([60c9910](#))
- Merge branch ‘master’ of github.com:gocentek/python-gitlab ([2e0ac3f](#))
- issues: add optional listing parameters ([c85276a](#))
- Merge pull request #125 from gocentek/issue-122

Add support for build artifacts and trace ([80a1908](#))

- Add support for commit comments

<https://github.com/gitlabhq/gitlabhq/blob/master/doc/api/commits.md> ([412e2bc](#))

- commit status: optional get attrs ([547f385](#))
- commit status: add optional context url ([0b8ed5a](#))
- Make GroupProject more “python-gitlabish” ([68d15fd](#))
- Merge branch ‘master’ of https://github.com/missionrulz/python-gitlab into missionrulz-master ([69e64a3](#))
- typo in doc block ([d9b9f92](#))
- add to `init.py` & move manager after class declaration ([8f707ac](#))
- move into own class & create manager class ([eb6c26f](#))
- Merge pull request #124 from Condla/master

Fix: –title is required argument, when in reality optional ([18de4ef](#))

- Fix –title is not a required argument anymore ([899490b](#))
- Fix –title is not a required argument anymore ([c24f0d9](#))
- Fix that –title is a required argument, when trying to update a ProjectMilestone ([bea8ea9](#))
- Add support for build artifacts and trace

Fixes #122 ([b3e0974](#))

- Merge pull request #121 from PeterMosmans/httpauthextended

Added HTTPAuth support for even more methods :) ([422b163](#))

- pylint fix ([40d7969](#))
- Added HTTPAuth support for even more methods :) ([59ed4fc](#))
- add HTTP auth options to doc ([6220308](#))
- Merge pull request #120 from PeterMosmans/basicauth

Added support for HTTP basic authentication ([11f1e2d](#))

- Added support for HTTP basic authentication ([e9e48b9](#))
- project issue: doc and CLI for (un)subscribe ([1b14f5c](#))
- Merge pull request #118 from IvicaArsov/issues\_subscribe\_unsubscribe

Add support for subscribe and unsubscribe in issues ([7bbbfb9](#))

- Merge branch ‘master’ of github.com:gocentek/python-gitlab ([b8f19ca](#))
- Add support for subscribe and unsubscribe in issues ([d42687d](#))
- version bump ([0535808](#))
- update changelog and authors ([57936af](#))
- Merge pull request #110 from chrwen-omicron/remove\_next\_url\_from\_cls\_kwargs

Remove ‘next\_url’ from kwargs before passing it to the cls constructor. ([05dd8dc](#))

- Manage optional parameters for list() and get()
- List these elements in the API doc
- Implement for License objects ([fd45397](#))
- fix pep8 tests ([417d27c](#))
- implement list/get licenses ([62e4fb9](#))
- Merge branch ‘master’ of github.com:gocentek/python-gitlab ([ee1620b](#))
- implement star/unstar for projects ([1de6b7e](#))
- Deprecate Project.archive() ([24c283f](#))
- Merge pull request #113 from adamreid/master

Enable updates on ProjectIssueNotes ([f5c75cb](#))

- Rename some methods to better match the API URLs

Also deprecate the file\_\* methods in favor of the files manager. ([45adb6e](#))

- ProjectFile: file\_path is required for deletion ([8ce8218](#))
- Rework the Gitlab.delete method

Fixes #107 ([0a1bb94](#))

- Revert “enable python 3.5 tests for travis”

This reverts commit 1915519f449f9b751aa9cd6bc584472602b58f36. ([c3f5b3a](#))

- Rework merge requests update

Fixes #76 ([aff99b1](#))

- enable python 3.5 tests for travis ([1915519](#))
- Enable deprecation warnings for gitlab only

Fixes #96 ([d204e66](#))

- Add new optional attributes for projects

Fixes #116 ([f12c732](#))

- Merge branch ‘master’ of https://github.com/gpocentek/python-gitlab (8edd7f7)
- Remove unnecessary canUpdate property from ProjectIssuesNote ([111b7d9](#))
- Drop the next\_url attribute when listing

Fixes #106 ([64af398](#))

- Implement project contributors ([1600770](#))
- Implement project compare

Fixes #112 ([250f348](#))

- Add support for Project raw\_blob ([7a8f81b](#))
- Merge pull request #108 from guyzmo/using\_requests\_session

Adding a Session instance for all HTTP requests ([23e8146](#))

- Enable updates on ProjectIssueNotes ([5fe7e27](#))
- update docblock ([cd13aff](#))
- list projects under group ([d4e2cd6](#))
- Remove ‘next\_url’ from kwargs before passing it to the cls constructor.

The ‘next\_url’ argument causes problems in the \_construct\_url method if it doesn’t belong there. E.g. if you list all projects, change an attribute of a project and then try to save it, the \_construct\_url will use the ‘next\_url’ from the list method and the save will fail. ([c261875](#))

- Adding a Session instance for all HTTP requests

The session instance will make it easier for setting up once headers, including the authentication payload, and it’s also making it easier to override HTTP queries handling, when using `betamax` for recording and replaying the test suites. ([858352b](#))

- Add missing group creation parameters

description and visibility\_level are optional parameters for group creation. ([61bc24f](#))

- Add deletion support for issues and MR

This is supported in gitlabhq master branch for admin users (soft deletion). ([9a9a4c4](#))

- add “external” parameter for users ([349f66e](#))
- MR: add support for closes\_issues ([571a382](#))
- MR: add support for cancel\_merge\_when\_build\_succeeds ([f6a51d6](#))
- minor docs fixes ([ccbea3f](#))
- Add support for MergeRequest validation

Both API and CLI support this feature.

fixes #105 ([43e8a2a](#))

- Update changelog and authors ([bb463ae](#))
- version bump ([754d5e5](#))

- Gitlab.update(): use the proper attributes if defined ([f8528cc](#))
- add a note about project search API ([e48e4ac](#))
- Merge branch ‘master’ of github.com:gocentek/python-gitlab ([e46c188](#))
- pep8 ignore H803 errors (git messages) ([86ade4a](#))
- Merge pull request #98 from Asher256/fix-unicode-syntax-py3

Fix the ‘invalid syntax’ on Python 3.2, because of u’password’ ([aea678b](#))

- Fix the ‘invalid syntax’ on Python 3.2, because of u’password’

More informations regarding this issue:

Operating system: Debian Wheezy, with Python 3.2 and the last version of python-gitlab.

The gitlab module raised this exception, because of the ‘u’ (Unicode):

Traceback (most recent call last): File “push\_settings.py”, line 14, in <module> from helper import ROOT\_EMAIL, ADMINS, git, old\_git File “/opt/scripts/gitlab/helpers/helper.py”, line 25, in <module> from gitlab import Gitlab File “/opt/scripts/gitlab/helpers/gitlab/**init**.py”, line 32, in <module> from gitlab.objects import \* # noqa File “/opt/scripts/gitlab/helpers/gitlab/objects.py”, line 546 selfdict.pop(u’password’, None) ^ SyntaxError: invalid syntax It is a recent change: 01802c0 (Richard Hansen 2016-02-11 22:43:25 -0500 546) selfdict.pop(u’password’, None) 01802c0 (Richard Hansen 2016-02-11 22:43:25 -0500 547) otherdict.pop(u’password’, None)

To solve the issue, ‘u’ was removed. ([7ed84a7](#))

- Re-implement \_custom\_list in the Gitlab class

Rename the method \_raw\_list. This adds support for the all=True option to enable automatic recursion and avoid pagination if requested by the user.

Fixes #93 ([453224a](#))

- remove unused \_returnClass attribute ([44d0dc5](#))
- CI: implement user get-by-username

fixes #95 ([58433d2](#))

- CLI: fix discovery of method to execute ([7260684](#))
- Improve the doc for UserManager

Describe parameters, return values and exceptions for search() and get\_by\_username(). ([b79af1d](#))

- Implement “user search” CLI ([073d8d5](#))
- Merge branch ‘rhansen-get-specific-user’ ([6975ac6](#))
- define UserManager.get\_by\_username() to get a user by username ([ac2e534](#))
- define UserManager.search() to search for users ([8f59516](#))
- define GitlabObject.eq() and ne() equivalence methods ([01802c0](#))
- define GitlabObject.as\_dict() to dump object as a dict ([f15a7cf](#))
- Merge pull request #89 from ExodusIntelligence/master

Adding new ProjectHook attributes: ([81be3cf](#))

- Add a coverage tox env ([2e1f84e](#))
- Add some unit tests for CLI

Reorganize the cli.py code to ease the testing. ([d2e30da](#))

- Rework the CLI code

Add support for more subcommands. ([8aa8d8c](#))

- Merge pull request #90 from ms-boom/fix\_custom\_list

fix GitlabObject creation in \_custom\_list ([f5ca0eb](#))

- fix GitlabObject creation in \_custom\_list ([293a9dc](#))
- Add support for user block/unblock ([e387de5](#))
- Added missing comma ([1f81c2d](#))
- Adding new ProjectHook attributes:
- `build_events`
- `enable_ssl_verification`

See the two links below:

- <https://github.com/gitlabhq/gitlabhq/blob/master/doc/api/projects.md#add-project-hook>
- <https://github.com/pyapi-gitlab/pyapi-gitlab/pull/173> ([db9bbf6](#))
- bump version to cleanup my mess on pypi ([942468d](#))
- Update ChangeLog and AUTHORS ([74d82d4](#))
- MANIFEST: add .j2 files in docs/ ([a495eec](#))
- CLI: fix {all,owned,search} project listing ([522cf1](#))
- Partially revert 00ab7d00 ([9ae26fe](#))
- version bump ([8642e9e](#))
- Merge branch ‘test-script-cleanups’ of <https://github.com/rhansen/python-gitlab> into rhansen-test-script-cleanups ([01e7c06](#))
- don’t suppress docker’s standard error

While docker is quite noisy, suppressing stderr makes it difficult to troubleshoot problems. ([0024552](#))

- wait for the docker container to stop before removing it ([52e4377](#))
- use ‘docker stop’ instead of ‘docker kill’

The ‘stop’ command first tries SIGTERM before resorting to SIGKILL, which is a gentler way to stop processes. (SIGTERM gives processes an opportunity to clean up before exiting; SIGKILL can’t be caught so it is very abrupt.) ([c56fc47](#))

- add more log messages ([2609cbb](#))
- define a testcase() function; use it for tests ([37f6d42](#))
- use \${CONFIG} instead of repeating the filename ([033881e](#))
- fix usage error message ([bc7332f](#))
- Add docstrings to some methods ([1b5c8f1](#))
- Fix the RTD requirements ([2e5476e](#))
- improve error handling

Break up pipelines and check the exit status of non-basic commands to ensure that any problems cause the scripts/testcases to fail right away. ([5dcceb8](#))

- convert scripts to POSIX shell by eliminating bashisms ([57f1ad5](#))
- quote underquoted variable expansions

This protects against word splitting if the variable contains IFS characters, and it ensures that an empty variable doesn't become an elided argument. ([09ef253](#))

- convert \$GITLAB to a function

This makes it possible to quote the \$CONFIG variable expansion. ([c100a04](#))

- convert \$OK to a function

This makes it possible to quote the variable expansions. ([8198e3f](#))

- only run deactivate if it exists

The deactivate command only exists if activate is run, but cleanup() might be called before activate is run if there is an error. ([6b298c6](#))

- ensure that cleanup() runs if terminated by the user ([17914a3](#))
- check if docker container is up when waiting for gitlab

There's no point in waiting for GitLab to come up if the docker container died. ([58106a0](#))

- error out if required utilities aren't installed ([b21fdda](#))
- use the log functions for errors and status messages

This causes the error messages to go to standard error, and it makes it easy to prefix all log messages if desired. ([867fe2f](#))

- add logging and error handling helper functions ([7c0e443](#))
- compact some case statements ([dfc6c70](#))
- move common code to build\_test\_env.sh

Note that build\_test\_env.sh now creates and prepares the Python virtualenv (it didn't before). ([26999bf](#))

- Automatic doc generation for BaseManager classes

Provide a sphinx extension that parses the required/optioanl attributes and add info to the class docstring. ([a2eca72](#))

- wrap long lines

Use line continuations to keep lines shorter than 80 columns. ([6df844a](#))

- travis lacks py35 support without tricks ([770dd4b](#))
- add python 3.5 test env ([920d248](#))
- add support for project builds ([ebf36b8](#))
- Fix Project.tree()

Add API tests for tree(), blob() and archive(). ([fc8affd](#))

- Fix project update ([141f21a](#))
- Rework the **version** import

This simplifies the setup.py script

Also provide a --version option for CLI ([00ab7d0](#))

- fix inclusion of api/\*.rst ([9f256a7](#))
- Add sudo support ([3711f19](#))

- Fix the ‘password’ requirement for User creation ([c579c80](#))
- Add support for application settings ([16d50cd](#))
- Implement project variables support ([e5438c6](#))
- implement project triggers support ([c11bebd](#))
- Implement setting release info on a tag

Add the set\_release\_description() method to ProjectTag. Add python API test for this method. ([7981987](#))

- API tests for tags ([0814d86](#))
- ProjectTag supports deletion (gitlab 8.4.0) ([339d329](#))
- Implement ProjectMilestone.issues()

This lists the issues related to the milestone.

Add python API tests for issues. ([db1fb89](#))

- fix ProjectLabel get and delete ([1ecb739](#))
- wait a little before running the python tests ([9709d79](#))
- fix the API test for decode() ([c22a19e](#))
- increase the timeout value for tests ([4e21343](#))
- make connection exceptions more explicit ([08d3ccf](#))
- add a decode method for ProjectFile ([2eac071](#))
- README is an RST file... ([d3a5701](#))
- Update README with travis status ([a4918a3](#))
- fix the test\_create\_unknown\_path test ([bf985b3](#))
- add a travis configuration file ([e40d9ac](#))
- Fix the json() method for python 3

Also add unit tests and fix pep8 test ([d7271b1](#))

- Merge branch ‘rhansen-fix-json’ ([982f54f](#))
- Merge branch ‘fix-json’ of https://github.com/rhansen/python-gitlab into rhansen-fix-json ([26d73e2](#))
- use a custom docker image for tests ([3f38689](#))
- skip BaseManager attributes when encoding to JSON

This fixes the following exception when calling User.json():

```
TypeError: <gitlab.objects.UserKeyManager object at 0x7f0477391ed0> is not JSONSerializable ([`ca6da62`] (https://github.com/python-gitlab/python-gitlab/commit/ca6da62010ee88e1b03f7a5abff69479103aa1e1))
```

- add a missing import statement

Add the import inside the function rather than at the top of the file because otherwise it would introduce a circular dependency. ([c95b3c3](#))

- Add an initial set of API tests ([7e4e1a3](#))
- include the docs in the tarball ([bbcccaa](#))
- 0.11.1 release update ([5c4f77f](#))

- add some CLI tests ([097171d](#))
- add unit tests for managers ([6baea2f](#))
- remove debugging print instruction ([7e54a39](#))
- Fix discovery of parents object attrs for managers ([0e0c81d](#))
- remove “=” in examples for consistency ([a4e29f8](#))
- (re)add CLI examples in the doc ([1b64a47](#))
- Merge pull request #82 from cdbennett/commitstatus

Support setting commit status ([02c5398](#))

- Support setting commit status

Support commit status updates. Commit status can be set by a POST to the appropriate commit URL. The status can be updated by a subsequent POST to the same URL with the same `name` and `ref`, but different values for `state`, `description`, etc.

Note: Listing the commit statuses is not yet supported. This is done through a different path on the server, under the repository path.

Example of use from the CLI:

```
add a build status to a commit
gitlab project-commit-status create --project-id 2 \
--commit-id a43290c --state success --name ci/jenkins \
--target-url http://server/build/123 \
--description "Jenkins build succeeded" ([`3371008`](https://github.com/
python-gitlab/python-gitlab/commit/33710088913c96db8eb22289e693682b41054e39))
```

- Support deletion without getting the object first

Use this feature in the CLI to avoid an extra API call to the server. ([1d7ebea](#))

- cli.py: make internal functions private ([e5821e6](#))
- Add a script to build a test env

`functional_tests.sh` has been split in 2 scripts to make easier the run of gitlab container. ([572cfa9](#))

- Rework `gitlab._sanitize`

Make it a recursive function and eliminate `_sanitize_dict`.

Add unit tests. ([03d8041](#))

- Improve the API documentation. ([4781fd7](#))
- Rewrite the README

And link to the docs on RTD. ([3e8cf4e](#))

- Bump version

And update copyright years. ([ca44878](#))

- Update AUTHORS ([0163499](#))
- Update ChangeLog for 0.11 ([3fd64df](#))
- add missing import ([9c74442](#))
- document the API migration from 0.10 ([610bde8](#))

- implement group search in CLI ([5ea6d0a](#))
- Add support for groups search

Factorize the code to avoid duplication with the ProjectManager class. Implement unit tests for the group search.

Original patchh from Daniel Serodio (PR #55). ([5513d0f](#))

- unit tests for config parser ([0ae315a](#))
- Implement ProjectManager search/list methods

The existing Gitlab methods are deprecated.

Unit tests have been added. ([689ecae](#))

- CLI: fix the discovery of possible actions ([e48e149](#))
- Create a manager for ProjectFork objects ([e8631c1](#))
- Merge branch ‘fgouteroux-add\_fork\_support’ ([37912c1](#))
- Merge branch ‘add\_fork\_support’ of <https://github.com/fgouteroux/python-gitlab> into fgouteroux-add\_fork\_support ([77d34b3](#))
- Deprecate the “old” Gitlab methods

Update the associated unit tests. ([2bf9794](#))

- add fork project support ([cedf080](#))
- README update ([dc0099d](#))
- Provide a getting started doc for the API ([2237d85](#))
- Remove extra dep on sphinx-argparse ([64d6356](#))
- Rework the requirements for RTD ([4a53627](#))
- Document installation using pip and git ([7523a61](#))
- Document the CLI ([0ee53e0](#))
- add unit tests for BaseManager ([2a93c62](#))
- GitLab -> Gitlab (class names) ([fdf295f](#))
- fix pretty\_print with managers ([bef97fe](#))
- README update ([d0da618](#))
- Implement managers to get access to resources

This changes the ‘default’ API, using managers is the recommended way to get/list/create objects. Additional operations will be implemented in followup patchs.

Old methods are deprecated and will disappear in a while. ([46f74e8](#))

- update the docs copyright years ([e5246bf](#))
- add missing copyright header ([b66672e](#))
- Split code in multiple files ([8fa4455](#))
- remove deprecated methods ([118b298](#))
- python3: fix CLI error when arguments are missing ([7c38ef6](#))
- fix the tests ([1db3cc1](#))
- Rename the \_created attribute \_from\_api ([2a76b74](#))

- Provide a create method for GitlabObject's

Instead of using the constructor to do everything (get, list and create), we now provide a class method for each action. This should make code easier to read. ([a636d5a](#))

- Add the CLI -g short option for --gitlab ([7e61a28](#))
- Add a get method for GitlabObject

This change provides a way to implement GET for objects that don't support it, but support LIST.

It is also a first step to a cleaner API. ([74dc2ac](#))

- functional\_tests.sh: support python 2 and 3 ([c580b1e](#))
- Move request return\_code tests in \_raise\_error\_from\_response ([81b0a06](#))
- Version bump ([38f17c1](#))
- update AUTHORS and ChangeLog ([e673dab](#))
- Add support for group members update

Closes #73 ([99c4710](#))

- Merge branch 'master' of github.com:gocentek/python-gitlab ([45becb9](#))
- Sanitize the id used to construct URLs

Closes #28 ([5d88f68](#))

- Merge pull request #78 from cdbennett/fix\_python3\_sort\_types

Use name as sort key to fix Python 3 TypeError ([6f1fd7e](#))

- Use name as sort key to fix Python 3 TypeError

Sort types explicitly by name to fix unorderable types TypeError in Python 3.

The call to sort() on cli.py line 259 produced the error:

```
TypeError: unorderable types: type() < type() ([`363b75e`] (https://github.com/python-gitlab/python-gitlab/commit/363b75e73c2b66ab625811accdb9d639fb068675))
```

- try to fix the RTD build ([acc1511](#))
- Merge pull request #72 from pa4373/newuser-confirm-fix

Can bypassing confirm when creating new user now ([d069381](#))

- Can bypassing confirm when creating new user ([a0fe68b](#))
- Test branch creation et deletion ([f07de94](#))
- Fix GET/POST for project files ([9c58013](#))
- hide the action attribute ([3270865](#))
- Fix deletion of object not using 'id' as ID

Closes #68 ([e5aa69b](#))

- README: add missing import in sample ([d8fdbca4](#))
- setup.py: require requests>=1

Closes #69 ([21fdf1b](#))

- Provide a Gitlab.from\_config method

It provides the Gitlab object creation from the `~/.python-gitlab.cfg`, just like the CLI does. ([fef8c7f](#))

- update README for list(all=True) ([6cc8126](#))
- don't list everything by default ([a9e8da9](#))
- fix pep8 test ([e93188e](#))
- Merge pull request #64 from jantman/issues/63

python-gitlab Issue #63 - implement pagination for list() ([24d5035](#))

- Merge pull request #66 from stefanklug/master

Fix error when fetching single MergeRequests ([adbe0a4](#))

- add support to update MergeRequestNotes ([79d452d](#))
- fix url when fetching a single MergeRequest ([227f71c](#))
- issue #63 add unit tests for 'next' link handling in list() ([719526d](#))
- issue #63 - revert logging additions ([f9654cd](#))
- python-gitlab Issue #63 - implement pagination for list() ([33ceed6](#))
- Fix the update/delete CLI subcommands

Also update the testing tool to test these features.

Closes #62 ([802c144](#))

- fix delete and update CLI methods ([e57b779](#))
- more README updates ([0922ed5](#))
- Improve the README a bit

Fix typos Detail which options are required in the [global] section (closes #61) ([f6abd4d](#))

- 0.9.1 release ([1f48e65](#))
- setup.py: restore the version discovery hack ([9966616](#))
- functional\_test.sh: use a venv ([e12abf1](#))
- fix setuptools sdist ([73c68db](#))
- add tools/ to MANIFEST.in ([82ff055](#))
- add test files to MANIFEST.in ([32daf2a](#))
- add test-requirements.txt in MANIFEST.in ([5c20201](#))
- remove executable flag on cli.py ([b8ee8f8](#))
- get ready for a 0.9 release ([dce3193](#))
- Provide a basic functional test script

This can be used to quickly test the correct behavior of the CLI. The script is simple and doesn't test much for now, but it's a start. ([1bc412e](#))

- update copyright date ([aae8e2d](#))
- CLI: remove wrong attributes from the verbose output

These attributes come from the command line arguments. ([d254e64](#))

- CLI: provide a --config-file option ([711c5be](#))

- Rename a few more private methods ([bed3adf](#))
- Move the CLI in the gitlab package

Setup an console\_script entry point to create the executable script. ([d7bea07](#))

- Fix the tests when the host runs a web server ([4c6c778](#))
- Projects can be updated

Also fix the projects special listing (all, owned, ...)

Closes #54 ([7bdb1be](#))

- improve handling of id attributes in CLI

closes #31 ([8b42559](#))

- rework (and fix) the CLI parsing ([ede1224](#))
- use more pythonic names for some methods ([c2d1f8e](#))
- make the tests pass ([0032d46](#))
- setup tox for py27 and py34 tests ([8634a4d](#))
- move the tests inside the package ([03bbfa0](#))
- Merge branch ‘tests’ of <https://github.com/mjmaenpaa/python-gitlab> into mjmaenpaa-tests

Conflicts: setup.py ([0443256](#))

- Deprecate some Gitlab object methods

raw\* methods should never have been exposed; replace them with raw\* methods

setCredentials and setToken are replaced with set\_credentials and set\_token ([b7d04b3](#))

- sphinx: don’t hardcode the version in conf.py ([59173ce](#))
- gitlab is now a package ([d2e5700](#))
- add a tox target to build docs ([105896f](#))
- Add a tox configuration file

Run pep8 tests only for now, and fix pep8 errors. ([82a88a7](#))

- Merge pull request #58 from massimone88/master

Used argparse library ([99cc43a](#))

- change changelog, change, add my name on collaborators, change version ([0d5b988](#))
- implemented argparse object for parsing the argument of the command line ([d44b48d](#))
- Merge branch ‘feature/impl\_argparse’ into develop ([fd473cd](#))
- \*clean import package +add folder .idea to gitignore ([23fe3c9](#))
- bug fixed on requiredArguments ([d099b11](#))
- remove “gitlab” of arguments because conflicts with “gitlab” attribute with GitlabObject class ([bdc6f73](#))
- remove forgotten argument ([e6c85b5](#))
- improvement argument required for each action add try/catch for error of parsing of not gitlabObject ([2792091](#))
- implement argparse library for parsing the arguments create constans for action name clean the code ([9439ce4](#))
- “timeout” option is an int, not a bool ([2d48e71](#))

- require sphinxcontrib-napoleon to build the docs ([990eeaca](#))
- Make sphinx-configuration work with python2 ([f22bfbd](#))
- Updated few gitlab.py docstrings as an example about how to document api ([3005b3d](#))
- Simple sphinx-project that automatically creates api documentation. ([e822b0b](#))
- ignore egg-info dirs ([d0884b6](#))
- add a requirements.txt file ([13cd78a](#))
- Little documentation about sudo-usage ([137ec47](#))
- Forgot to add sudo-support to update ([7d31e48](#))
- Support labels in issues correctly ([5d25344](#))
- Send proper json with correct content-type and support sudo-argument

Use json-encoder to create proper gitlab-compatible json Send only attributes specified with requiredCreateAttrs and optionalCreateAttrs Send correct content-type header with json Sudo, page & per\_page is supported for all methods by using \*\*kwargs to pass them Changed rawPut to have same parameters as rawPost ([96a44ef](#))

- Update example about how to close issue in README ([78c4b72](#))
- Added missing optionalCreateAttrs for ProjectIssue. Fixed typo in ProjectTag. ([72eb744](#))
- Improved error reporting
- Try to parse error response from gitlab.
- Use one function (\_raiseErrorFromResponse) to parse and raise exceptions related to errors reported by gitlab. ([8e13487](#))
- Improved exception-classes.
- Added http status-code and gitlab error message to GitlabError-class.
- Added new GitlabOperationError-class to help separate connection and authentication errors from other gitlab errors. ([8351b2d](#))
- Raise NotImplementedError on all cases, where can\*-boolean is False ([555cc45](#))
- No reason to have separate \_getListOrObject-method in Gitlab-class.

Changed GitlabObject-class version of \_getListOrObject to classmethod. Removed \_getListOrObject-method from Gitlab-class. Changed Gitlab-class to use GitlabObject-class version of \_getListOrObject ([90ebbeb](#))

- bump version to 0.8 ([296a72f](#))
- “Document” the timeout option ([39aa998](#))
- Update the Changelog ([8be5365](#))
- CLI: support a timeout option ([1672529](#))
- make sure to not display both id and idAttr ([9744475](#))
- ProjectLabel: use name as id attribute ([f042d2f](#))
- pretty\_print: don’t display private attributes ([fa92155](#))
- Add Mika Mäenpää in the authors list ([526f1be](#))
- Merge pull request #45 from mjmaenpaa/labels\_files

Classes for ProjectLabels and ProjectFiles ([928b9f0](#))

- Merge pull request #44 from mjmaenpaa/noid\_objects

Support api-objects which don't have id in api response. ([afe0ab4](#))

- Merge pull request #43 from mjmaenpaa/url\_delete\_attrs

Moved url attributes to separate list. Added list for delete attributes. ([f7dfad3](#))

- Merge pull request #40 from mjmaenpaa/py3

Python3 compatibility ([1eccc3b](#))

- Fixed object creation in list ([134fc7a](#))
- Classes for ProjectLabels and ProjectFiles ([ad63e17](#))
- Support api-objects which don't have id in api response. ([c3ab869](#))
- Moved url attributes to separate list. Added list for delete attributes. ([ea4c099](#))
- Merge pull request #42 from mjmaenpaa/constructUrl

Moved url-construction to separate function ([221f418](#))

- Merge pull request #41 from mjmaenpaa/gitlab\_get\_exception

Gitlab.get() raised GitlabListError instead of GitlabGetError ([9736e0b](#))

- Moved url-construction to separate function ([e14e3bf](#))
- Gitlab.get() raised GitlabListError instead of GitlabGetError ([ee54b3e](#))
- Py3 compatibility with six ([431e4bd](#))
- Merge pull request #39 from mjmaenpaa/timeout

Timeout support ([9f134fc](#))

- Python 3 compatibility for cli-program ([d714c4d](#))
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- Python3 compatibility ([15c0da5](#))
- Merge pull request #38 from mjmaenpaa/currentuser\_key

Changed CurrentUser.Key to use \_getListOrObject-method like all other functions ([4664ebd](#))

- Merge pull request #37 from mjmaenpaa/list\_kwarg

No reason to add kwarg to object in Gitlab.list()-method ([2c86085](#))

- Merge pull request #36 from mjmaenpaa/setFromDict

\_setFromDict thinks False is None ([4c5c39d](#))

- CurrentUser.Key uses \_getListOrObject-method ([afcfc1c2](#))
- No reason to add kwarg to object in Gitlab.list()-method because GitlabObject constructor can handle them. ([40ce81e](#))
- \_setFromDict thinks False is None ([3cf35ce](#))
- Added tests.

Uses httmock library to abstract away requests-library. Uses nose to actually run tests. ([f458522](#))

- Merge pull request #34 from tekacs/master

Update .sort to use key for Python 3.x. ([ff2d84c](#))

- Update .sort to use key for Python 3.x.

Rather than really dubious cmp function. ([b483319](#))

- Merge pull request #32 from patgmiller/master  
refactor “\_sanitize” for Python < 2.7 ([6c4fc34](#))
- refactor “\_sanitize” for Python < 2.7 ([89d3fa0](#))
- changelog update ([8846bf7](#))
- bump version ([3f0ac43](#))
- update copyright years ([c6f0a8d](#))
- flake8 fixes ([5d5e0f7](#))
- Fix handling of boolean values

Gitlab expects an int (1 or 0) as value for boolean attributes. Transform python bool's into int's when creating or updating objects.

Closes #22 ([d4803f9](#))

- Support namespace/name for project id

Closes #28 ([34d6952](#))

- update AUTHORS ([d38f219](#))
- Merge pull request #27 from cdleonard/master

Fix encoding errors on display and update with redirected output ([2b5ea46](#))

- Support state\_event in ProjectMilestone

Closes #30 ([2281283](#))

- add support for branches creation and deletion ([97e2689](#))
- add support for UserKey listing and deletion ([@9e4a64](#))
- drop the module shebang ([@1335f3](#))
- Fix encoding error when updating with redirected output

When output is redirected sys.stdout.encoding is None. Fix this by always encoding to utf-8, assuming gitlab handles that. The encoding used by the local system is irrelevant here. ([ec185cf](#))

- Fix encoding error when printing to redirected output

When redirecting output to a file sys.stdout.encoding is None, so use sys.getdefaultencoding() instead. ([e236fd9](#))

- Merge pull request #16 from locke105/master

Fix license classifier in setup.py ([8ce3e30](#))

- Fix license classifier in setup.py ([994e464](#))
- version bump

Update Changelog and AUTHORS ([1fe783d](#))

- projects listing: explicitly define arguments for pagination ([4fceef67](#))
- Merge pull request #13 from dpasqualin/master

Add support for extra parameters when listing all projects (Refs #12) ([4b882b7](#))

- ProjectMember: constructor should not create a User object ([1c21423](#))
- ids can be unicode

Fixes #15 ([c6e371e](#))

- Add support for extra parameters when listing all projects (Refs #12)

Signed-off-by: Diego Giovane Pasqualin <dpasqualin@c3sl.ufpr.br> ([1b6c595](#))

- version bump ([04574f3](#))
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- update AUTHORS and Changelog ([962e806](#))
- Merge remote-tracking branch ‘github-mrts/master’ ([7fb7c47](#))
- add a Key() method for User objects ([1969abb](#))
- Merge pull request #10 from ksmets/master

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- Add SSH key for user ([909c10e](#))
- Add support for project events. ([32d4224](#))
- Fix comments. ([6705928](#))
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- version bump ([5f0136c](#))
- Add support for Gitlab 6.1 group members ([71c8750](#))
- minor syntax/pep8 updates ([09ef68f](#))
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- Implement Gitlab 6.1 new methods
- Project: tree, blob
- ProjectCommit: diff, blob ([c9aedf2](#))
- ProjectMergeRequest: fix Note() method ([4006ab2](#))
- Allow to get a project commit (GitLab 6.1) ([6b0c678](#))
- Fix strings encoding (Closes #6) ([64cead6](#))
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- Correct url for merge requests API. ([5090ef4](#))
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- ids for single items might be str ([928d4fa](#))
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- fix LGPL header and provide module informations ([96e341e](#))
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- Rework the API

objects can be created using the usual syntax, with one optional argument (int to get one object, dict to create an object, nothing to get a list of items). A save() method creates/updates the object on the server. A delete() method removes it from the server. ([653843d](#))

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## 7.10 Release notes

Prior to version 2.0.0 and GitHub Releases, a summary of changes was maintained in release notes. They are available below for historical purposes. For the list of current releases, including breaking changes, please see the changelog.

### 7.10.1 Changes from 1.8 to 1.9

- `ProjectMemberManager.all()` and `GroupMemberManager.all()` now return a list of `ProjectMember` and `GroupMember` objects respectively, instead of a list of dicts.

### 7.10.2 Changes from 1.7 to 1.8

- You can now use the `query_parameters` argument in method calls to define arguments to send to the GitLab server. This allows to avoid conflicts between `python-gitlab` and GitLab server variables, and allows to use the `python` reserved keywords as GitLab arguments.

The following examples make the same GitLab request with the 2 syntaxes:

```
projects = gl.projects.list(owned=True, starred=True)
projects = gl.projects.list(query_parameters={'owned': True, 'starred': True})
```

The following example only works with the new parameter:

```
activities = gl.user_activities.list(
 query_parameters={'from': '2019-01-01'},
 all=True)
```

- Additionally the `all` parameter is not sent to the GitLab anymore.

### 7.10.3 Changes from 1.5 to 1.6

- When `python-gitlab` detects HTTP redirections from http to https it will raise a `RedirectionError` instead of a cryptic error.

Make sure to use an `https://` protocol in your GitLab URL parameter if the server requires it.

### 7.10.4 Changes from 1.4 to 1.5

- APIv3 support has been removed. Use the 1.4 release/branch if you need v3 support.
- GitLab EE features are now supported: Geo nodes, issue links, LDAP groups, project/group boards, project mirror pulling, project push rules, EE license configuration, epics.
- The `GetFromListMixin` class has been removed. The `get()` method is not available anymore for the following managers:
  - `UserKeyManager`
  - `DeployKeyManager`
  - `GroupAccessRequestManager`
  - `GroupIssueManager`
  - `GroupProjectManager`

- GroupSubgroupManager
  - IssueManager
  - ProjectCommitStatusManager
  - ProjectEnvironmentManager
  - ProjectLabelManager
  - ProjectPipelineJobManager
  - ProjectAccessRequestManager
  - TodoManager
- ProjectPipelineJob do not heritate from ProjectJob anymore and thus can only be listed.

## 7.10.5 Changes from 1.3 to 1.4

- 1.4 is the last release supporting the v3 API, and the related code will be removed in the 1.5 version.  
If you are using a Gitlab server version that does not support the v4 API you can:
  - upgrade the server (recommended)
  - make sure to use version 1.4 of python-gitlab (`pip install python-gitlab==1.4`)See also the [Switching to GitLab API v4 documentation](#).
- python-gitlab now handles the server rate limiting feature. It will pause for the required time when reaching the limit ([documentation](#))
- The `GetFromListMixin.get()` method is deprecated and will be removed in the next python-gitlab version. The goal of this mixin/method is to provide a way to get an object by looping through a list for GitLab objects that don't support the GET method. The method is [broken](#) and conflicts with the GET method now supported by some GitLab objects.

You can implement your own method with something like:

```
def get_from_list(self, id):
 for obj in self.list(as_list=False):
 if obj.get_id() == id:
 return obj
```

- The `GroupMemberManager`, `NamespaceManager` and `ProjectBoardManager` managers now use the GET API from GitLab instead of the `GetFromListMixin.get()` method.

## 7.10.6 Changes from 1.2 to 1.3

- `gitlab.Gitlab` objects can be used as context managers in a `with` block.

## 7.10.7 Changes from 1.1 to 1.2

- python-gitlab now respects the \*\_proxy, REQUESTS\_CA\_BUNDLE and CURL\_CA\_BUNDLE environment variables (#352)
- The following deprecated methods and objects have been removed:
  - gitlab.v3.object Key and KeyManager objects: use DeployKey and DeployKeyManager instead
  - gitlab.v3.objects.Project archive\_ and unarchive\_ methods
  - gitlab.Gitlab credentials\_auth, token\_auth, set\_url, set\_token and set\_credentials methods. Once a Gitlab object has been created its URL and authentication information cannot be updated: create a new Gitlab object if you need to use new information
- The todo() method raises a GitlabTodoError exception on error

## 7.10.8 Changes from 1.0.2 to 1.1

- The ProjectUser class doesn't inherit from User anymore, and the GroupProject class doesn't inherit from Project anymore. The Gitlab API doesn't provide the same set of features for these objects, so python-gitlab objects shouldn't try to workaround that.

You can create User or Project objects from ProjectUser and GroupProject objects using the id attribute:

```
for gr_project in group.projects.list():
 # lazy object creation avoids a Gitlab API request
 project = gl.projects.get(gr_project.id, lazy=True)
 project.default_branch = 'develop'
 project.save()
```

## 7.10.9 Changes from 0.21 to 1.0.0

1.0.0 brings a stable python-gitlab API for the v4 Gitlab API. v3 is still used by default.

v4 is mostly compatible with the v3, but some important changes have been introduced. Make sure to read [Switching to GitLab API v4](#).

The development focus will be v4 from now on. v3 has been deprecated by GitLab and will disappear from python-gitlab at some point.

## 7.10.10 Changes from 0.20 to 0.21

- Initial support for the v4 API (experimental)

The support for v4 is stable enough to be tested, but some features might be broken. Please report issues to <https://github.com/python-gitlab/python-gitlab/issues/>

Be aware that the python-gitlab API for v4 objects might change in the next releases.

**Warning:** Consider defining explicitly which API version you want to use in the configuration files or in your gitlab.Gitlab instances. The default will change from v3 to v4 soon.

- Several methods have been deprecated in the gitlab.Gitlab class:

- `credentials_auth()` is deprecated and will be removed. Call `auth()`.
  - `token_auth()` is deprecated and will be removed. Call `auth()`.
  - `set_url()` is deprecated, create a new `Gitlab` instance if you need an updated URL.
  - `set_token()` is deprecated, use the `private_token` argument of the `Gitlab` constructor.
  - `set_credentials()` is deprecated, use the `email` and `password` arguments of the `Gitlab` constructor.
- The service listing method (`ProjectServiceManager.list()`) now returns a python list instead of a JSON string.

### 7.10.11 Changes from 0.19 to 0.20

- The `projects` attribute of `Group` objects is not a list of `Project` objects anymore. It is a `Manager` object giving access to `GroupProject` objects. To get the list of projects use:

```
group.projects.list()
```

Documentation: [http://python-gitlab.readthedocs.io/en/stable/gl\\_objects/groups.html#examples](http://python-gitlab.readthedocs.io/en/stable/gl_objects/groups.html#examples)

Related issue: <https://github.com/python-gitlab/python-gitlab/issues/209>

- The `Key` objects are deprecated in favor of the new `DeployKey` objects. They are exactly the same but the name makes more sense.

Documentation: [http://python-gitlab.readthedocs.io/en/stable/gl\\_objects/deploy\\_keys.html](http://python-gitlab.readthedocs.io/en/stable/gl_objects/deploy_keys.html)

Related issue: <https://github.com/python-gitlab/python-gitlab/issues/212>

## 7.11 FAQ

### 7.11.1 General

#### I cannot edit the merge request / issue I've just retrieved.

It is likely that you used a `MergeRequest`, `GroupMergeRequest`, `Issue` or `GroupIssue` object. These objects cannot be edited. But you can create a new `ProjectMergeRequest` or `ProjectIssue` object to apply changes. For example:

```
issue = gl.issues.list()[0]
project = gl.projects.get(issue.project_id, lazy=True)
editable_issue = project.issues.get(issue.id, lazy=True)
you can now edit the object
```

See the *merge requests example* and the *issues examples*.

## How can I clone the repository of a project?

python-gitlab does not provide an API to clone a project. You have to use a git library or call the `git` command.

The git URI is exposed in the `ssh_url_to_repo` attribute of `Project` objects.

Example:

```
import subprocess

project = gl.projects.create(data) # or gl.projects.get(project_id)
print(project.attributes) # displays all the attributes
git_url = project.ssh_url_to_repo
subprocess.call(['git', 'clone', git_url])
```

## Not all items are returned from the API

If you've passed `all=True` to the API and still cannot see all items returned, use `get_all=True` (or `--get-all` via the CLI) instead. See [Pagination](#) for more details.

### 7.11.2 Common errors

#### AttributeError when accessing object attributes retrieved via list()

Fetching a list of objects does not always include all attributes in the objects. To retrieve an object with all attributes, use a `get()` call.

Example with projects:

```
for projects in gl.projects.list():
 # Retrieve project object with all attributes
 project = gl.projects.get(project.id)
```

#### AttributeError when accessing attributes after save() or refresh()

You are most likely trying to access an attribute that was not returned by the server on the second request. Please look at the documentation in [Attributes in updated objects](#) to see how to avoid this.

#### TypeError when accessing object attributes

When you encounter errors such as `object is not iterable` or `object is not subscriptable` when trying to access object attributes returned from the server, you are most likely trying to access an attribute that is shadowed by python-gitlab's own methods or managers.

You can use the object's `attributes` dictionary to access it directly instead. See the [Gitlab Objects](#) section for more details on how attributes are exposed.

### I cannot use the parameter path (or some other parameter) as it conflicts with the library

path is used by the python-gitlab library and cannot be used as a parameter if wanting to send it to the GitLab instance. You can use the query\_parameters argument to send arguments that would conflict with python or python-gitlab when using them as kwargs:

```
invalid, as ``path`` is interpreted by python-gitlab as the Path or full
URL to query '/projects' or 'http://whatever/v4/api/projects')
project.commits.list(path='some_file_path', iterator=True)

project.commits.list(query_parameters={'path': 'some_file_path'}, iterator=True) # OK
```

See [Conflicting Parameters](#) for more information.



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**CHAPTER  
EIGHT**

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**INDICES AND TABLES**

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