Quetzal Python Client Documentation

Release 0.0.0

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Python client for the Quetzal API.

If you are not familiar with the Quetzal API, read its documentation first. This Python package provides a command-line and helper functions to interact with the Quetzal API.

Note that this package depends on an auto-generated package quetzal.openapi_client, which is also a client to this API. You can use the latter as a pure Python client, but *quetzal.client* provides some helpers and small fixes.

CHAPTER 1

Installation

quetzal-client and its dependency, *quetzal-openapi-client*, are not on PyPI yet. In the meantime, in order to install this package, create a virtual environment and install with `pip`:

```
pip install git+https://github.com/quetz-al/quetzal-client.git@v0.3.0\#egg=quetzal-
↪client
```

Alternatively, add this line to your `requirements.txt`:

```
git+https://github.com/quetz-al/quetzal-client.git@v0.3.0#egg=quetzal-client
```

and then do `pip install -r requirements.txt`.

If you are using conda, add the following structure to your `environment.yaml`:

```
...
dependencies:
  - pip:
    - git+https://github.com/quetz-al/quetzal-client.git@v0.3.0#egg=quetzal-client
```

and create or update your environment with `conda env create -f environment.yaml` or `conda env update -f environment.yaml`, respectively.

CHAPTER 2

Getting started

In order to use *quetzal.client*, you need to know the URL of the API server, your username and password. You can set these on the command-line interface, through a configuration object, or using environment variables:

Table 1: Environment variables considered by *quetzal-client*.

Variable	Description	Default if not set
`QUETZAL_URL`	Complete URL of the Quetzal server + API version.	`'https://api.quetz.al/api/v1'`
`QUETZAL_USER`	Quetzal username.	`''`
`QUETZAL_PASSWORD`	Quetzal password.	`''`

CHAPTER 3

Basic usage

There are two ways this package helps you: with a command-line interface or by providing some helper modules that you can use in Python.

3.1 Command-line interface

The command-line interface is available through the `quetzal-client` command. Use the `--help` or `--help-all` options to get a detailed description of each command.

```
$ quetzal-client --help

Usage: quetzal-client [GLOBAL OPTIONS] COMMAND [ARGS]...

  Command-line utility for the Quetzal API client.

Options:
  --url TEXT       Quetzal URL. If not set, uses environment variable
                   QUETZAL_URL if this variable is defined.  [default:
                   https://staging.quetz.al/api/v1]
  --insecure       Do not verify HTTPS certificates.
  --username TEXT  Quetzal username. If not set, uses environment variable
                   QUETZAL_USER. Option is mutually exclusive with token.
  --password TEXT  Quetzal password. If not set, uses environment variable
                   QUETZAL_PASSWORD. Option is mutually exclusive with token.
  --token TEXT     Quetzal access token. If not set, uses environment variable
                   QUETZAL_TOKEN. Option is mutually exclusive with username,
                   password.
  -v, --verbose    Verbosity level. Use -v for verbose, -vv for even more
                   verbosity
  --help-all       Show a detailed help message with all options and exit.
  --help           Show help message for this command and exit.
  --version        Show the version and exit.
```

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```
Commands:
  auth       Authentication operations.
  file       File operations.
  query      Query metadata.
  workspace  Workspace operations.
```

3.2 Python

To start using *quetzal.client* on Python code, use the following template:

```python
from quetzal.client import Client, Configuration, QuetzalAPIException
from quetzal.client import helpers

config = Configuration()
# ... change config as needed or fallback to the environment variables ...
# config.verify_ssl = False  # Use this for servers without certificates (dev servers)
client = Client(config)

# A simple test using the helpers to verify that we can login to Quetzal
try:
    helpers.auth.login(client)
    print('Logged in successfully!')
except QuetzalAPIException as ex:
    print(f'Operation failed. {ex.title} - {ex.detail}')
```

CHAPTER 4

Documentation

There are more details on *quetzal.client* on its official documentation at readthedocs.

CHAPTER 5

Contribute

- Issue Tracker: https://github.com/quetz-al/quetzal-client/issues
- Source Code: https://github.com/quetz-al/quetzal-client

CHAPTER 6

License

The project is under the BSD 3-clause license.

6.1 Examples

6.1.1 Command-line examples

- example 1
- example 2

6.1.2 Python examples

- example 1
- example 2

6.2 Changelog

This document list all important changes to quetzal-client.

Quetzal-client version numbers follow semantic versioning.

6.2.1 0.3.0 (2019-07-02)

- Update to API version 0.3.0.
- Add more helper functions (query and client).
- Fix incorrect call to derived configuration object.

- Fix unpickeable exception types.
- Fix bugs on file download checksum verification and file upload parameters.

6.2.2 0.2.0 (2019-03-21)

- Update dependency *quetzal-openapi-client* to match Quetzal API version 0.2.0.
- Fix `dependency_links` to correctly link to *quetzal-openapi-client*.

6.2.3 0.1.1 (2019-03-08)

- `quetzal.client.api` has been renamed to `quetzal.client.helpers`.
- File download, with verification of known files, added to helpers.
- File download falls back to user data directory if output not set.
- Config default to environment variable values when created.
- Initial structure of Sphinx documentation.

6.2.4 0.1.0 (2019-03-05)

- First iteration of the Quetzal Python client.
- Delegates the *automatic* code to quetzal-openapi-client.
- Command-line interface implemented with Click for most operations available on the Quetzal API.
- Incomplete implementation of a helper module *quetzal.client.api* that encapsulates the usage of the auto-generated client.

6.3 Modules

6.3.1 quetzal.client package

6.3.1.1 Subpackages

6.3.1.1.1 quetzal.client.cli package

6.3.1.1.1.1 Submodules

6.3.1.1.1.2 quetzal.client.cli.auth module

6.3.1.1.1.3 quetzal.client.cli.file module

6.3.1.1.1.4 quetzal.client.cli.main module

6.3.1.1.1.5 quetzal.client.cli.query module

6.3.1.1.1.6 quetzal.client.cli.workspace module

6.3.1.1.2 quetzal.client.helpers package

6.3.1.1.2.1 Submodules

6.3.1.1.2.2 quetzal.client.helpers.auth module

6.3.1.1.2.3 quetzal.client.helpers.file module

6.3.1.1.2.4 quetzal.client.helpers.query module

6.3.1.1.2.5 quetzal.client.helpers.workspace module

6.3.1.2 Submodules

6.3.1.3 quetzal.client.base module

6.3.1.4 quetzal.client.config module

6.3.1.5 quetzal.client.exceptions module

6.3.1.6 quetzal.client.utils module