exporter

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CONTENTS:

Exporter automates exporting projects from FIT CTU GitLab to GitHub. It allows choosing which projects to export, their renaming, and visibility on GitHub. Also, there is an option for exporting all of your GitLab projects at once.

Check Quickstart *HERE* for examples.

CHAPTER

ONE

QUICKSTART

1.1 How to install

Install from PyPi

```
$ pip install fit-ctu-gitlab-exporter
```

1.2 Examples

Allowed `config` file format is described *here*,
`projects` file format is described *here*.

1.2.1 1. Export multiple projects

```
$ exporter -c config -p projects
```

where content of file `projects` is

```
my_gitlab_project
my_other_gitlab_project
```

1.2.2 2. Export, rename and set visibility for multiple projects

```
$ exporter -c config -p projects
```

where content of file `projects` is

```
my_gitlab_project -> avl_tree_cpp
my_secret_project -> secret_project private
```

1.2.3 3. Export all projects

Export all of your GitLab projects. Run at most `batch-size` exports simultaneously.

```
$ exporter -c config --export-all --batch-size=5
```

CHAPTER

TWO

PROJECTS FILE FORMAT

Projects file is required and is passed by `--projects, -p` option. Each line corresponds to one exported project. Format of each line is

```
gitlab_name [-> github_name] [private/public]
```

2.1 Example

Below is an example of a valid project file. Every format is used here.

```
1 my_project
2 my_secret_project private
3 ag1_progtest -> avl_tree_cpp
4 fit_bachelor_thesis -> bachelor_thesis public
5 fit_bachelor_thesis -> bachelor_thesis_backup private
```

Explanation of each line

1. Specify only the GitLab project name. GitHub name is the same and visibility is default.

   ```
   my_project
   ```

2. Same as above but explicitly set visibility of exported GitHub project.

   ```
   my_secret_project private
   ```

3. Set different GitHub name to export to.

   ```
   ag1_progtest -> avl_tree_cpp
   ```

4-5. Explicitly add visibility with a different name on GitHub.

```
fit_bachelor_thesis -> bachelor_thesis public
fit_bachelor_thesis -> bachelor_thesis_backup private
```

CHAPTER

THREE

CONFIG FILE FORMAT

Config file is required and is passed by `-c, --config` option. It must contain GitHub and GitLab tokens. Application uses them for accessing GitHub and GitLab API.

3.1 Example

Below is the only valid format of a config file.

```
[gitlab]
token=XXXXXXXXXXXXXXXXXXXX

[github]
token=XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

CHAPTER

FOUR

RETURN CODES

After export is finished, user is presented with the result.

Result for each export may contain multiple codes:

1. `EXPORTED`

   Project has been successfully exported.

2. `SKIPPED`

   Export for this project has been skipped because it's name already exists in GitHub (only without `overwrite` flag).

3. `SUCCESS_ROLLBACK`

   Everything for the project export is undone. Eg deleting created GitHub repo if it did not exist before.

4. `ERROR_ROLLBACK`

   Error during rollback.

5. `RUN_ERROR`

   Error during run of the export. Does not interfere with `SUCCESS_ROLLBACK`.

6. `NOT_RUNNED`

   Export has not been started for this project.

7. `OVERWRITTEN`

   GitHub project has been overwritten (only with `overwrite` flag).

8. `INTERRUPTED`

   Run of the export has been interrupted by the user (by sending `Ctrl+C`). Does not interfere with `SUCCESS_ROLLBACK`.

9. `DRY_RUN`

   Application was run in `dry-run` mode. No changes were made.

10. `NO_GITLAB_PROJECT`

    There is not GitLab project for the given name.

11. `MULTIPLE_GITLAB_PROJECTS`

    There are multiple GitLab projects for the given name.

CHAPTER FIVE

TESTING

Exporter has set of tests that it is supposed to pass. All tests are written using pytest.

Command for running the tests is tox. Easy way how to run all tests is to run this command in cloned Exporter repository.

```
$ tox # run all tests
```

CHAPTER SIX

MANPAGE

```
Usage: exporter [OPTIONS]

    Tool for exporting projects from FIT CTU GitLab to GitHub

Options:
  --version                       Show the version and exit.
  -c, --config FILENAME           File containing GitHub and GitLab tokens.
                                  [required]

  --export-all                    Export all GitLab projects associated with
                                  given token.

  -p, --projects FILENAME         Project names to export. See Documentation
                                  for format. Option is mutually exclusive
                                  with export-all.

  --purge-gh                      Prompt for GitHub token with admin access,
                                  delete all repos and exit. Dangerous!

  --debug                         Run application in debug mode. Application
                                  is unstable in this mode.

  --conflict-policy [skip|overwrite]
                                  [skip] skip export for project names which
                                  already exists on GitHib.[overwrite]
                                  overwrite any GitHub project which already
                                  exists.

  --tmp-dir PATH                  Temporary directory to store data during
                                  export.  [default: tmp]

  --task-timeout FLOAT            Timeout for unresponding export task.
                                  [default: 30.0]

  --unique                        Prevent GitHub name conflicts by appending
                                  random string at the end of exported project
                                  name.

  --visibility [public|private]   Visibility of the exported project on GitHub
                                  [default: private]

  --batch-size INTEGER            Maximum count of simultaneously running
                                  tasks.  [default: 10]
```

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```
  --dry-run                       Do not perform any changes on GitLab and
                                  Github.

  --help                          Show this message and exit.
```

CHAPTER

SEVEN

API DOCUMENTATION

7.1 Package

7.1.1 Submodules

7.1.2 exporter.cli module

7.1.3 exporter.config module

7.1.4 exporter.helpers module

`exporter.helpers.`**`ensure_tmp_dir`**(*path*)

Acquire temporal directory, asking user for overwrite existing if necessary.

Parameters **`path`** – directory to acquire

Returns empty temporal directory

`exporter.helpers.`**`flatten`**(*t*)

Flatten list of lists

`exporter.helpers.`**`rndstr`**(*length*)

Generate random string of given length which contains digits and lowercase ASCII characters

`exporter.helpers.`**`split_to_batches`**(*iterable*, *n=1*)

Split iterable to batched of given size

7.1.5 exporter.logic module

7.1.6 Module contents

CHAPTER EIGHT

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PYTHON MODULE INDEX

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