

Data Migration - Round 3

Automatically upload the **RST file** from Task 2 to **GitHub**

Requirements

Write a java/python command line application push the RST file to GitHub and overwrite if the file is existed.

Input: **RST file** of task 2

Output: File got **pushed** to GitHub branch

Evaluation

- **[x]** Push to GitHub
- **[x]** Overwrite
- **[x]** Clean code

Installation

Install the required packages by using **pip**

```
pip install -r requirements.txt
```

Getting Started

```
$ python main.py -i sample.rst -s config.yaml
```

Technical Overview

- We use the GitHub REST API to upload files.
 - **First**, use a GET method to retrieve the current SHA of a file. If file does not exist on that branch, the value of SHA is None.
 - **Second**, use a PUT method to upload the file. The file is encoded, together with its SHA (if overwrite) and commit message are pushed to the branch
- Of course, you must provide your personal **access token** and this token must be authorized to access the resources.
- For more detail, please refer to [GitHub REST API documentation](#)

Generative Access Token

- You can following this [guidelines](#) to generate your own **access_token**

- Note that make sure that your **access token** have scope and expiration dates specified enough time and have valid credentials to **read** and **write** the repo

Usage

The program have **2 arguments**. You can check the documentation by using the command

```
$ python main.py -h
```

```
usage: main.py [-h] [-i INPUT_FILE] [-s SETTINGS]

options:
  -h, --help            show this help message and exit
  -i INPUT_FILE, --input_file INPUT_FILE
                        Directory to input file need to push to Github.
                        Accepts file *.rst only
  -s SETTINGS, --settings SETTINGS
                        Directory to configure config yaml settings.
                        Accepts file *.yaml only
```

Example command:

```
$ python main.py -i sample.rst -s config.yaml
```

- **Step 1:** Modify the **/Task3/config.yaml**

```
AUTHENTICATION:
  TOKEN: <GitHub-Access-Token>
  USERNAME: <username>
MESSAGE: <commit-message>
REPOSITORY:
  BRANCH: <name-of-branch>
  NAME: <name-of-repo>
  OWNER: <repo-owner>
```

Note that the repository must have the branch before pushing.

Example configuration for a **repository**:

```
AUTHENTICATION:
  TOKEN: <GitHub-Access-Token>
  USERNAME: <username>
MESSAGE: test-github-access-token
REPOSITORY:
```

```
BRANCH: main  
NAME: Bosch_CodeRace_TheThree  
OWNER: nlthanhcse
```

- **Step 2:** run the `main.py` to start uploading

```
$ python main.py -i sample.rst -s config.yaml
```