User Manual

Project 7

CS 410 – An Introduction to Software Engineering Fall Semester 2021

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0.1 Preface

For this group project, three computer science students from UMass Boston worked closely with Impact Finance Center, a non-profit academic center, to research and identify which social media platform would be best to allocate resources towards.

We were given multiple social media account handles and tasked to create a dashboard that would help visualize information from each platform. We started this by creating developer accounts for each of the various social media accounts such as Instagram, Facebook, and LinkedIn. Through developer accounts, we were able to acquire an API access token, and this would allow us to query the necessary information and store it for further processing. Eventually we would take this information and display it on our website's dashboard for analysis.

1.1 Getting started

To begin the project, it is important to clone all our files that are stored on GitHub. Here is the link to where all files are hosted:

https://github.com/laurachamb/410-Project

The complete directory is required for the program to run properly. To run the program, it is also essential to install Flask. For more information on how to properly install Flask, please visit the link below:

https://flask.palletsprojects.com/en/2.0.x/installation/

It is also important to include the appropriate environment for the setup to work properly. In this case our environment folder is called "venv". Make sure to have this folder within the 410-Project directory.

1.2 Running the project

To run the project, open the command prompt on your computer. Navigate to the 410-Project directory using the 'cd' command within the terminal.

Once inside the directory, please enter the following commands to run the program:

For Windows machines:

\$ venv\Scripts\activate

For Linux based machines:

\$ source venv/bin/activate

If the activation was a success, you should see the terminal look like this below:

(venv) \$ _

Note, you will also be able to do pip installs into the virtual environment.

To proceed, please input the following commands depending on the terminal you are using:

For Windows machines:

(venv) \$ set FLASK_APP=app.py (venv) \$ flask run

For Linux based machines:

(venv) \$ export FLASK_APP=app.py (venv) \$ flask run

If the command flask run was a success you should see similar output:

- * Serving Flask app 'app.py' (lazy loading)
- * Environment: production

WARNING: This is a development server. Do not use it in a production deployment.

Use a production WSGI server instead.

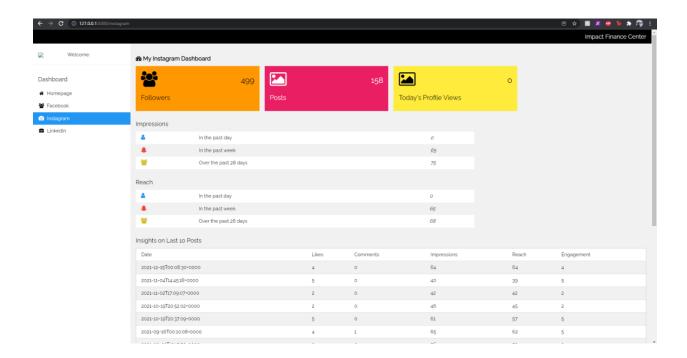
- * Debug mode: off
- * Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)

Open any web browser and type the following into the URL address field:

http://localhost:5000/

2.1 Navigation

Below is a screenshot of the website. A sidebar is on the left and you can navigate through it by clicking on any of the labeled fields. Once clicked, a query is sent and if successful, that information will be displayed on the main page. Each social media account provides a different set of information. Note that any call made can be refreshed by either refreshing the page or by clicking on any of the fields on the sidebar. Remember that calls are limited, so do NOT make too many calls in a short timeframe.



3.1 Information

When examining the source code, you will notice that Facebook and Instagram make similar API calls. The token is good for 2-3 months and need to be refreshed once that limit has been reached. We could not acquire a developer account for Twitter, but through using a third-party tool to scrape information, we were still able to gather data to be displayed on the website. Just note that scraping this way is also limited, so please limit the number of queries.

