

# 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.

The screenshot displays the 'My Instagram Dashboard' within a web browser. The browser's address bar shows '127.0.0.1:5000/instagram'. The page title is 'Impact Finance Center'. On the left, a sidebar contains navigation links: 'Welcome', 'Dashboard', 'Homepage', 'Facebook', 'Instagram' (highlighted), and 'LinkedIn'. The main content area is titled 'My Instagram Dashboard' and features three large colored boxes: an orange box for 'Followers' with a value of 499, a pink box for 'Posts' with a value of 158, and a yellow box for 'Today's Profile Views' with a value of 0. Below these are sections for 'Impressions' and 'Reach', each with a table showing data for 'In the past day', 'In the past week', and 'Over the past 28 days'. At the bottom, there is a table titled 'Insights on Last 10 Posts' with columns for Date, Likes, Comments, Impressions, Reach, and Engagement.











Impressions						
Icon	Timeframe	Value				
👤	In the past day	0				
👤	In the past week	65				
👤	Over the past 28 days	75				

Reach		
Icon	Timeframe	Value
👤	In the past day	0
👤	In the past week	65
👤	Over the past 28 days	68

Insights on Last 10 Posts					
Date	Likes	Comments	Impressions	Reach	Engagement
2021-12-15T00:08:30+0000	4	0	64	64	4
2021-11-04T14:45:18+0000	5	0	40	39	5
2021-11-02T17:09:07+0000	2	0	42	42	2
2021-10-19T20:52:02+0000	2	0	46	45	2
2021-10-19T20:37:09+0000	5	0	61	57	5
2021-09-16T00:10:08+0000	4	1	65	62	5

### 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.

My Twitter Dashboard		
<div> impactfinctr Username</div>		
December		
	Likes	2
	Replies	0
	Retweets	0
November		
	Likes	24
	Replies	0
	Retweets	17
October		
	Likes	44
	Replies	1
	Retweets	30