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[README] -- Social Media Comparison Team A

**1. Overview**

The objective of the Social Media Comparison tool is to pull data rapidly and automatically from several brands across various social media outlets. The tool focuses specifically on engagements and impressions and uses that data to build out marketing profiles that can be analyzed by the companies running them. These marketing profiles allow companies to determine which marketing campaigns are succeeding and which are failing based on the statistics gathered and modify them accordingly.

**2. Purpose**

The purpose of the Social Media Comparison tool is to compare different metrics for different social media platforms. The goal is to present the user of this tool with the “best performers” of each brand that was entered. The “best performers” are determined by a formula using engagements and impressions that was defined by Debra Parcheta. The information presented to the user will present various data depending on the platform selected, such as Likes, Comments, and Retweets.

**3. Technology Used**

Primary tech

|  |  |
| --- | --- |
| Python 3.8.12 | Main language used to build scrapers/functionality in website |
| Django 3.2.8 | Framework used to build website with |
| Selenium 4.0.0 | Automation library used with HTML parsing library |
| BeautifulSoup 4.10.0 | HTML parsing library |
| PyMySQL 1.0.2 | Database connector library to access MySQL DB with Python |
| MySQL database 8.0.25 | Relational database to manage extracted social media data |

(Directory “Django Dependencies” contains all Django/Python dependencies)

**4. Users**

The social media comparison tools’ target audience includes professionals in marketing that aren’t tech savvy, prefer not to have to read a lot, and most likely will use a variety of devices to access the tool like tablets. Large and small businesses can utilize this technology to help increase reactions to their social media and boost engagements. Users looking to understand social media trends will also benefit from this technology.

**5. Cautions**

* Do note that the Facebook, Instagram, and TikTok scrapers will *not* retrieve any information. Running a search with one of these platforms selected will either result in an error, or no information on the Results page.
* When inputting dates, the most recent date should be entered in the “End Date” field.
* When inputting Brand Handles, be sure not to include spaces or special characters in the Brand Handle. If you have difficulty finding the correct handle to use for your search, the brand’s URL will normally include the correct handle and formatting.

Examples (for successful searches, you would want to input the **bold** words into the Brand Handle fields):

- https://www.youtube.com/c/**nike**/featured

- https://twitter.com/**CocaCola**

**-** https://www.pinterest.com/**realreddiwip**/\_created/

* Depending on the search criteria entered, it may take up to 20 minutes for all the information to be collected. Do not refresh or exit the page if you want the search to be completed and show results.

**6. References**

Selenium drives most of the functionality of our different scrapers. As we are usually *just* collecting information on a page (as opposed to inputting information), everything we need for collection can be found on this page:

<https://selenium-python.readthedocs.io/locating-elements.html>

Install: <https://selenium-python.readthedocs.io/installation.html>

BeautifulSoup is used in some cases, and their homepage includes some example scripts which explain all the basics of the library:

<https://www.crummy.com/software/BeautifulSoup/bs4/doc/#making-the-soup>

Install: <https://www.crummy.com/software/BeautifulSoup/bs4/doc/#installing-beautiful-soup>

PyMySQL allows our program to communicate directly with our MySQL database, and all the complexities of this service are explained here:

<https://pymysql.readthedocs.io/en/latest/user/examples.html>

Install: <https://pymysql.readthedocs.io/en/latest/user/installation.html>

**7. Contacts**

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**8. Q&A**