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Assignment 7: Using the Twitter API to access Twitter Data

PURPOSE

The program twitter_api.py retrieves data from the Twitter API after asking the user for a Twitter user screen name. The API is utilized to gather basic information such as the screen name, name, ID, description, location, number of friends and number of followers. Then, the API is also used to determine the five most recent followers and the five most recent tweets (including retweets and replies). This program will repeatedly prompt the user for a Twitter screen name until the user decides to stop.

INPUT

After running the program in the terminal, the user is prompted for a Twitter User Screen Name.

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL

meghamansuria@Meghas-MacBook-Pro API7 % python3 twitter_api.py
Enter a Twitter User Screen Name: justinbieber
```

After retrieving all the required information about the entered input, the program will prompt the user to enter another Twitter User Screen Name.
To end the program, the user should enter 'STOP' and a goodbye message is printed.

```
Enter another Twitter User Screen Name: STOP
Thank you for using twitter_api.py! Goodbye!

meghamansuria@Meghas-MacBook-Pro API7 %
```

OUTPUT

The output is printed in the console with the required basic information (as listed in the Purpose) and further information about the most recent followers and tweets.

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL                                    1: Python

meghamansuria@Meghas-MacBook-Pro API7 % python3 twitter_api.py
Enter a Twitter User Screen Name: justinbieber
********** Basic Information **********
(1) User Screen Name: justinbieber
(2) User Name: Justin Bieber
(3) User ID: 27260086
(4) User Description: Holy and Lonely out now
(5) Location:
(6) Number of Friends: 294655
(7) Number of Followers: 113073831

****** 5 Most Recent Followers: *******
Fathis19
ashleigh_parry
Tea39962218
EktaSin36664592
tiIdaylight

******** 5 Most Recent Tweets: ********
TWEET 1
Purpose turns 5 this week https://t.co/T16Cwz2WzN

TWEET 2
RT @Vevo: A laid-back version of "Holy" from @justinbieber and @chancetherapper to ease you into the weekend. 🙏

▶https://t.co/X…

TWEET 3
Mood remix @24kGoldn @JBALVIN @ianndior https://t.co/siedNLfJmk https://t.co/aBq59HTQc3

TWEET 4
Holy acoustic @chancetherapper https://t.co/nwMMrTbdZ5 https://t.co/iP0xaiXCSN

TWEET 5
#Holy acoustic tonight @chancetherapper https://t.co/jbQT3OH3da https://t.co/8Rb63BU2gu

Enter another Twitter User Screen Name: ▊
```

WHAT THE PROGRAM DOES

To start, the program asks for the user to give a single input: any Twitter user screen name. As the program processes the username, the Twitter API is called using the screen name to retrieve the data regarding the user's name, user ID, user description, location, number of friends (which are who the user follows), and the number of followers. This API can retrieve the specific data respective to the given user screen name. Gathering the five most recent followers and tweets is a similar concept, except I use a Cursor object to handle the pagination of results and then, grab the five most recent items from the API methods: followers and user_timeline. My main function in the program includes a while-loop so the program can repeatedly prompt the user until it is told to STOP. The get_information function takes the given user screen name and begins to extract the data using the API as described above.

ADDITIONAL INFORMATION

I was not familiar with the Twitter API prior to this assignment, but I had a lot of fun with it! I was a little unsure how to get the five most recent items of followers and tweets, but I used

GeeksforGeeks to understand that the followers are listed as they are added; soon, I learned to use the Cursor object to find the api.followers of the given screen_name. Likewise, I was confused how to get the latest tweets/retweets, but I researched the Tweepy documentation further and discovered that the api.user_timeline will give the most recent statuses (which are tweets, replies, and retweets) as they are added. Once I figured out these distinct methods, I was able to gather the data that I needed.