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CS 581

Homework 7 - Using the Twitter API to access Twitter Data

I pledge my honor that I have abided by the Stevens Honor System - Chloe Quinto

Purpose

The purpose of this assignment is to get an understanding of Twitter Data. This assignment encapsulates ideas such as data search/retrieval and processing/analysis.

Input

To run this program, type in

`python3 main.py`

The script asks the user

`“What Twitter User Account do you want to analyze? Type “STOP” to end program”`

The input to this question can be any twitter account. In the example below, I typed in

`@realDonaldTrump` and `@BarackObama`.

Output

Figure 1: `@realDonaldTrump`

```

MacBook-Pro-7:a07 chloequinto$ python3 main.py
=====
What Twitter User Account do you want to analyze? Type "STOP" to end program
@BarackObama

=====
User Name: Barack Obama
Screen Name: BarackObama
User ID: 813286
User Description: Dad, husband, President, citizen.
Number of Followers: 115058635
=====

Most Recent Tweet by BarackObama
It's Census Day and we all have a crucial role to play. Filling out the 2020 Census determines what the next decade...
https://t.co/e90Xk9eFk1
=====

Screen Names of First 10 Followers of BarackObama
nii_crypto
John87517757
JigarSakaria
NBulking
hamam_malek
RajmanRaj16
BabaDee73598634
MUHAMME46161174
Chisomo74356726
breth_jackson
=====

What Twitter User Account do you want to analyze? Type "STOP" to end program
STOP
Sorry to see you go! Come back again!
MacBook-Pro-7:a07 chloequinto$ _

```

Figure 2: @BarackObama

What it does

main.py is the script used to access twitter data. main.py first prompts the user, “What Twitter User Account do you want to analyze? Type “STOP” to end program.”.

```

if __name__ == "__main__":
    print("=====")
    user_screen_name = input("What Twitter User Account do you want to analyze? Type \"STOP\" to end program\n")

    while user_screen_name != "STOP":
        getUser(user_screen_name)
        getMostRecentTweet()
        getFollowers()
        user_screen_name = input("What Twitter User Account do you want to analyze? Type \"STOP\" to end program\n")

    if user_screen_name == "STOP":
        print("Sorry to see you go! Come back again!")
        exit()

    print("=====")

```

While the input is not “STOP”, it calls three main functions: getUser(), getMostRecentTweet(), and getFollowers().

getUsers() takes in the input user account name as its input and calls the tweepy API to get the following: user name, user screen name, user id, user description, and number of followers.

Then the script calls getMostRecentTweets() to print the user's most recent tweet.

```
def getMostRecentTweet():
    """
    Function print the user's most recent tweet with appropriate label
    """
    global screen_name
    try:
        print("=====")
        recent_tweet = API.get_user(screen_name = screen_name)
        print("Most Recent Tweet by " + screen_name + " \n" + recent_tweet.status.text)
        print("=====\n")
    except:
        print("[ERROR] Coult not get most recent twitter information")
```

Then the script calls `getFollowers()` to print the user's first 10 followers.

```
def getFollowers():
    """
    Function gets screen names of the first 10 followers of the Twitter User Account
    """
    global screen_name
    print("=====")
    print("Screen Names of First 10 Followers of " + screen_name)
    try:
        count = 0
        for users in tweepy.Cursor(API.followers, id = screen_name).items():
            if count == 10:
                break
            count += 1
            print(users.screen_name)
    except:
        print("[ERROR] Could not get followers")

    print("=====\n")

    return None
```

Finally, the script prompts the user again if they would like to analyze another twitter user account and repeats. If the user types "STOP", the script says "Sorry to see you go! Come back again!"