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Online Social Networks

Assignment 07 Twitter API and Data Manipulation: Report

I.   Purpose

The purpose of this program is to use the Twitter API and the tweepy module to get specific data about a user given that users Twitter Screen Name. For this assignment, we were required to go through the process of making a Twitter Developer account and acquire the follow four codes unique to our account: Consumer Key, Consumer Key Secret, Access Token, Access Token Secret. With these codes we were able to retrieve data from the Twitter API and the following processing on that data.

II.   Input

This program can be run by using the following commands on the command line: py -3 Patton_Assign07.py OR python3 Patton_Assign07.py. Once this is done, the program asks the user to input the Twitter Screen Name desired to get data on. At this point, and when data collection and processing is done for the inputted screen name, the user can also enter STOP to stop the program from asking for input and end the process.

III.   Output

Using the inputted Twitter Screen Name, the program then outputs the following data acquired through the Twitter API with the corresponding labels:

- User Name
- User Screen Name
- User ID
- User Description
- Number of Followers
- Most Recent Tweet
- First 10 Followers

The program then prompts the user for the next screen name to process or allows them to stop the process altogether by inputting STOP.

IV.   Program Description

I imported tweepy to allow for Twitter conducive programming. To set up the Twitter API for use I used the 4 codes listed above. I put my entire program in a while(True) loop to continuously ask for input until the user inputs to cease the process. I then ask the user for input and collect that input using input(). If what input() collects is equal to the string "STOP", the process breaks out of the while(True) loop and prints the respective message. I use the method get_user and feed in the inputted screen name and save the resulting twitter user object as a

variable. I use this variable (twitter_user) which has attributes name, id, description, and followers_count to get the respective name, id, description, and follower count of the user inputted. I also return the same screen name inputted. To get the most recent tweet, I make use of the api method user_timeline feeding it the screen name, count = 1, and attach [0] to the end of the method to make sure I only get the most recent status. I also attach .id to the end of this method to get the id of the status, which I use later in the api.get_status method feeding in the most recent tweet's id, and setting the tweet_mode to 'extended' to make sure the tweet text is not truncated for being too long. To get the first 10 followers, I set up the first_10_fols variable set to an empty list, followed_user to None, and acquire all of the followers ids by using the api.followers_ids method with the inputted screen name. I then set up a for loop to loop through the list of follower ids, setting followed_user equal to the current followed user (using the api.get_user method on the current follower id to get the current followed user) and appending that user to the first_10_fols list, until I collect 10 in which the loop ends. At the end of this process, the loop returns to the request for input to allow the user to enter another screen name or cease the process by entering "STOP". If the user enters "STOP" a corresponding message is sent to the terminal and the process ends.

I pledge my honor that I have abided by the Stevens Honor System.

Brandon Patton