TWITTER API

To start working with Twitter APIs, we need to have a twitter developer account and an app in it. Twitter is a popular social network. Twitter allows us to mine the data of any user using Twitter API or Tweepy. The data will be tweets extracted from the user.

Steps to generate Access Token

1. Log In with your Twitter account.
2. Go to Twitter Developers: https://developer.twitter.com/
3. Click on “Apply”, then “Apply for a developer account”.
4. Fill the form by giving your reasons for using Twitter developer Tools. Then submit it.
5. Verify the developer account by clicking the verification link sent to your mail.
6. Now, Create Twitter App by going to the “Developer Portal”.
7. Enter the name & other details for the new app.
8. Click on “Create”.
9. After successful creation of the Twitter App on the Twitter Developer Portal, the following **Consumer keys & Bearer Token** will be displayed there.
    - API Key
    - API Secret Key
10. For Access Tokens, go to the App that you’ve just created. Then click on “Keys and tokens”.
11. There you can find both Consumer Keys and Authentication Tokens. Two tokens would be listed under Authentication Tokens:
    - Bearer Token
    - Access Token & Secret
12. Copy them to a file and save them safely.

Steps to extract tweets using Tweepy & Twitter APIs

1. To extract all the tweets of a particular user, a script is required which would append the tweets to an array and store them.
2. To do the same we can write a python script using Tweepy python-library for accessing the Twitter API.
3. Create a file tweet_extractor.py.
4. Edit the file and add the following code. Replace the keys with your own keys that you've just generated.
5. Replace the "twitter-handle" with the user's twitter-handle you want to extract the tweets of.

```
import tweepy

consumer_key = "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
consumer_secret = "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
access_key = "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
access_secret = "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"

# Function to extract tweets
def get_tweets(username):

        # Authorization to consumer key and consumer secret
        auth = tweepy.OAuthHandler(consumer_key, consumer_secret)

        # Access to user's access key and access secret
        auth.set_access_token(access_key, access_secret)

        # Calling api
        api = tweepy.API(auth)

        # 200 tweets to be extracted
        number_of_tweets=200
        tweets = api.user_timeline(screen_name=username)

        # Empty Array
```

```
        tmp=[]

        # create array of tweet information: username,
        # tweet id, date/time, text
        tweets_for_csv = [tweet.text for tweet in tweets] # CSV file created
        for j in tweets_for_csv:

            # Appending tweets to the empty array tmp
            tmp.append(j)

        # Printing the tweets
        print(tmp)


# Driver code
if __name__ == '__main__':

    # Here goes the twitter handle for the user
    # whose tweets are to be extracted.
    get_tweets("twitter-handle")
```

There are different types of data we can collect, with the obvious focus on the “tweet” object. Useful application of extracting tweets is sentiment or emotion analysis. The emotion of the user can be obtained from the tweets by tokenizing each word and applying machine learning algorithms on that data. Such emotion or sentiment detection is used worldwide and will be broadly used in the future.