Certificate Course in Machine Learning using Python [6 Weeks]

Accessing Twitter Data in Python for Sentiment analysis

Attempt: 1

Accessing Twitter Data

Tweepy:

An easy-to-use Python library for accessing the Twitter API. Tweepy is open-sourced, hosted on GitHub and enables Python to communicate with Twitter platform and use its API.

To install tweepy module into your computer

```
pip install tweepy
```

Importing tweepy package

```
import tweepy
import pandas as pd
```

Note: Obtain consumer key and consumer secret key from twitter by creating login into your twitter account and making an app.

In order for you to get the Twitter feed working you need four keys; the Consumer Key, Consumer Secret, Access Token and Access Token Secret. Below are the steps to get those 4 keys.

1. Go to https://developer.twitter.com and log in, if necessary.
2. Click on your twitter account and click App.
3. Click Create an app button.
4. Enter your desired Application Name, Application Description and your website address making sure to enter the full address including the http://. You can leave the callback URL empty.
5. Enter something in '**Tell us how this app will be used**' and click 'create' button.
6. On next page, click on 'Keys and Tokens' to access your Consumer API key.
7. Under 'Access Token and Access token secret', click on 'Generate' button to generate these keys.

Accessing Twitter Data

Given code is used to access the twitter data using Python.

```
import tweepy
import pandas as pd
```

OAuthHandler: Used for authorization to consumer key and consumer secret key

Synatx:

auth=tweepy.OAuthHandler(Consumer key, consumer Secret Key)

Syntax:

auth.set_access_token(Access Key, Access Secret Key)

- **Write Consumer Key and Consumer Secret Key from your twitter app in OAuthHandler**

```
auth=tweepy.OAuthHandler("8OlZOVSa5rRpN16C6RuO9KJl2",
"aLzVL7MtO5PfKdNH6CB2X0Q7HGGefFbjkTKf0IWj2eWOk9wK0e")
```

- **Write Access Key and Access Secret Key from your twitter app in OAuthHandler**

```
auth.set_access_token("104131500-J5oVlDuyMLBdgLf4ffGUqxqcsFOqJwcCITO3zelN",
"smu3uvH1E458Oan3axnuOW7f0QHLk5ZrIRQzRuPT5e67r")
```

- **tweepy.API is used to access the tweets from the twitter using your consumer key.**

```
api=tweepy.API(auth)
```

- **user_timeline() function gets 20 tweets of a particular user for ex: narendramodi**

```
tweets=api.user_timeline(screen_name="narendramodi")
```

- **Reading Tweets one by one**

```
tmp=[]
for t in tweets:
  j=[t.text,t.created_at]
  tmp.append(j)
```

- **Storing the tweets in a csv file**

```
df=pd.DataFrame(tmp,columns=["Text","Date_Time"])
df.to_csv("Tweet_Output.csv")
```

- **Accessing tweets of a particular person from page 1 to 5. First page only contains top 20 tweets. We can access more than 20 tweets by using for loop.**

```
tmp=[]
for i in range(1,6):
    tweets=api.user_timeline(screen_name="HRDMinistry", page=i)
    for t in tweets:
        j=[t.text,t.created_at]
        tmp.append(j)
```

tweepy.Cursor:

A **cursor** object is created using **tweepy**. The **Cursor** object has an items() method that returns an iterable you can use to iterate over the results. You can pass items() the number of result items that you want to get.

```
tmp=[]
for t in tweepy.Cursor(api.search,q="#nepal",count=100,since="2020-07-07").items():
  j=[t.text,t.created_at]
  tmp.append(j)
df=pd.DataFrame(tmp,columns=["Text","Date_Time"])
df.to_csv("Day23_Output2.csv")
```

Here,

'api.search' is used to search tweets related to a particular person.

'q' specifies the searching name. # is not mandatory.

'count' specifies the number of tweets to view.

'since' specifies the date to view the tweets.

't.text' specifies the tweets and 't.created_at' specifies the timeline

home_timeline(): Used to access your twitter data.

```
public_tweets = api.home_timeline()
```

```
for tweet in public_tweets:
    print(tweet.text)
```

Next

PREVIOUS ACTIVITY

◄ Different way of Storing Data: Example

Jump to...

NEXT ACTIVITY

Twitter Data Access: Python Code ►

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