**ASSIGNMENT 12**

**Source Code:**

import re

importtweepy

fromtweepy import OAuthHandler

fromtextblob import TextBlob

classTwitterClient(object):

'''

Generic Twitter Class for sentiment analysis.

'''

def \_\_init\_\_(self):

'''

Class constructor or initialization method.

'''

# keys and tokens from the Twitter Dev Console

consumer\_key = 'please enter your key'

consumer\_secret = 'please enter your consumer secret key'

access\_token = 'please enter your token'

access\_token\_secret = 'please enter your secret token'

# attempt authentication

try:

# create OAuthHandler object

self.auth = OAuthHandler(consumer\_key, consumer\_secret)

# set access token and secret

self.auth.set\_access\_token(access\_token, access\_token\_secret)

# create tweepy API object to fetch tweets

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

except:

print("Error: Authentication Failed")

defclean\_tweet(self, tweet):

'''

Utility function to clean tweet text by removing links, special characters

using simple regex statements.

'''

return ' '.join(re.sub("(@[A-Za-z0-9]+)|([^0-9A-Za-z \t])|(\w+:\/\/\S+)", " ", tweet).split())

defget\_tweet\_sentiment(self, tweet):

'''

Utility function to classify sentiment of passed tweet

usingtextblob's sentiment method

'''

# create TextBlob object of passed tweet text

analysis = TextBlob(self.clean\_tweet(tweet))

# set sentiment

ifanalysis.sentiment.polarity> 0:

return 'positive'

elifanalysis.sentiment.polarity< 0:

return 'negative'

else:

return 'neutral'

defget\_tweets(self, query, count = 10):

'''

Main function to fetch tweets and parse them.

'''

# empty list to store parsed tweets

tweets = []

try:

# call twitter api to fetch tweets

fetched\_tweets = self.api.search(q = query, count = count)

# parsing tweets one by one

for tweet in fetched\_tweets:

# empty dictionary to store required params of a tweet

parsed\_tweet = {}

# saving text of tweet

parsed\_tweet['text'] = tweet.text

# saving sentiment of tweet

parsed\_tweet['sentiment'] = self.get\_tweet\_sentiment(tweet.text)

# appending parsed tweet to tweets list

iftweet.retweet\_count> 0:

# if tweet has retweets, ensure that it is appended only once

ifparsed\_tweet not in tweets:

tweets.append(parsed\_tweet)

else:

tweets.append(parsed\_tweet)

# return parsed tweets

return tweets

excepttweepy.TweepError as e:

# print error (if any)

print("Error : " + str(e))

def main():

s=1

# creating object of TwitterClient Class

api = TwitterClient()

# calling function to get tweets

tweets = api.get\_tweets(query = keyword, count = 200)

# picking positive tweets from tweets

ptweets = [tweet for tweet in tweets if tweet['sentiment'] == 'positive']

# percentage of positive tweets

print("Positive tweets percentage: {} %".format(100\*len(ptweets)/len(tweets)))

# picking negative tweets from tweets

ntweets = [tweet for tweet in tweets if tweet['sentiment'] == 'negative']

# percentage of negative tweets

print("Negative tweets percentage: {} %".format(100\*len(ntweets)/len(tweets)))

# percentage of neutral tweets

neutweets = [tweet for tweet in tweets if tweet['sentiment'] == 'neutral']

print("Neutral tweets percentage: {} %".format(100\*(len(tweets) - len(ntweets) - len(ptweets))/len(tweets)))

# printing first 5 positive tweets

print("\n\nPositive tweets:")

for tweet in ptweets[:10]:

print(tweet['text'])

# printing first 5 negative tweets

print("\n\nNegative tweets:")

for tweet in ntweets[:10]:

print(tweet['text'])

# printing first 5 neutral tweets

print("\n\nNeutral tweets:")

for tweet in neutweets[:10]:

print(tweet['text'])

if \_\_name\_\_ == "\_\_main\_\_":

keyword = raw\_input("Please enter your keyword-query :")

# calling main function

main()

**Output:**

Please enter your keyword-query :Narendra Modi

Positive tweets percentage: 12 %

Negative tweets percentage: 27 %

Neutral tweets percentage: 59 %

Positive tweets:

RT @Ethirajans: Wow, by this logic, was MJ Akbar associated with BJP/Narendra Modi when the alleged Sexual harassments happened? @svaradara…

PM Narendra Modi asks oil producers to review terms of payment - Economic Times https://t.co/HHqNjxD8Cq

RT @abhijitmajumder: Why Hindus must never use NOTA — Compelling @davidfrawleyved piece in @MyNation https://t.co/WS0FXUxcu1

RT @SwamiGeetika: RT those who want to see this magical moment yet another time! Shri Narendra Modi Prime Minister of India yet another tim…

RT @GauravPandhi: The supposed 'Modi Magic' of bartering rice in return of oil from Iran was initiated by Dr Manmohan Singh way back in 201…

RT @rachitseth: Explosive New Expose in #RafaleScam

Minutes of the Meeting of Dassault with its union states that 'it was imperative &amp;obli…

#RestInPeace #ProfessorGDAgarwal. We wish we could say your sacrifice will not go futile but that would not be true… https://t.co/htosAN1Sbu

RT @DeshGujarat: More visuals, from inside, outside and around the Statue of Unity, the tallest statue of the world in making dedicated to…

Negative tweets:

RT @CNNnews18: .@INCIndia spokesperson @SinghRPN said it is "extremely unfortunate" that the Prime Minister is silent. #MeTooIndia

https:/…

RT @FeignShourie: Nobody could have diverted public attention from Scams and failures of Modi Govt as did MJ Akbar and his past crimes!

Na…

RT @IndianExpress: Amit Shah introduced several national issues such as the triple talaq legislation, the alleged plot to kill PM Narendra…

RT @pbhushan1: Those asking: 'What's the Corruption in Rafale deal?' should read our complaint to CBI to see how Modi replaced the almost d…

RT @iScrew: Rahul Gandhi becomes bad Hindu too when Shashi Tharoor says some thing.

Does that make Narendra Modi a molester too when MJ Akb…

RT @davidfrawleyved: Hindus have long suffered from failing to vote or not voting strategically, abandoning politics to anti-Hindu groups.…

The Congress on Monday asked Prime Minister Narendra Modi to clarify whether he supports the criminal defamation ca… https://t.co/uec9xd3e5Q

RT @mdbaid: Ultimately this is a "suit boot kisarkar".

@RahulGandhi has rightly alleged that Prime Narendra Modi disregards the poor but…

RT @surajitdasgupta: The Hindu disappointment with Narendra Modi government is certainly echoing in various chambers. Or else, David Frawle…

RT @DrSaniaMaan: First we will try to make you PAID 'media',

then we will try to make you AFRAID,

they will try to make RAID on you and…

Neutral tweets:

RT @scroll\_in: By allowing Akbar to stay, Narendra Modi indicates that India under BJP is no country for women https://t.co/yrgoQbiWgv | @a…

PM Narendra Modi asks oil producers to review terms of payment https://t.co/ccKXAqUFAr

RT @SaurabhRai\_INC: मोदीऔरशाहकेचरित्रकेबारेमेंसुनिए, कैसेऔरकिसतरहलड़कियोंकेकापीछाकरतेफिरतेथेयेभेड़िये. 😡😡😡

#SnoopingGa…

RT @HinduDharma1: Rename Ahmedabad as Karnavati, fulfil promise made as Gujarat CM, Dr Subramanian ⁦@Swamy39⁩ reminds PM Narendra Modi ⁦@na…

By allowing Akbar to stay, Narendra Modi indicates that India under BJP is no country for women… https://t.co/FTw2yRUsZM

RT @pkbehera: https://t.co/WT9BA1tktZ #MeTooIndia

@NuthiNageswara1 @GVLNRAO OkkokkaPachcha corrupted gaallaniJailu Ki PampinchatamKhayam .. Narendra Modi akkada ..

RT @AmarUjalaNews: पीएममोदीनेनखाऊंगानखानेदूंगासिर्फबीफकेलिएकहाथा: थरूर

@ShashiTharoor @narendramodi

#HindiNews

https://t.co/…

RT @priyankac19: HCI has ranked India on 115th position out of 154 countries lower than neighbouring countries like Nepal, Sri Lanka, Myanm…

Narendra Modi : Justice For Anissia - Sign the Petition! https://t.co/6DVy5v8ilX via @UKChange