

```
!ls
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```
↳ credential.py __pycache__ sample_data
```

```
!pip3 install oauth2
```

```
! python -m textblob.download_corpora
```

```
↳ Requirement already satisfied: oauth2 in /usr/local/lib/python3.6/dist-packages (1
Requirement already satisfied: httplib2 in /usr/local/lib/python3.6/dist-packages
[nltk_data] Downloading package brown to /root/nltk_data...
[nltk_data] Package brown is already up-to-date!
[nltk_data] Downloading package punkt to /root/nltk_data...
[nltk_data] Package punkt is already up-to-date!
[nltk_data] Downloading package wordnet to /root/nltk_data...
[nltk_data] Package wordnet is already up-to-date!
[nltk_data] Downloading package averaged_perceptron_tagger to
[nltk_data] /root/nltk_data...
[nltk_data] Package averaged_perceptron_tagger is already up-to-
[nltk_data] date!
[nltk_data] Downloading package conll2000 to /root/nltk_data...
[nltk_data] Package conll2000 is already up-to-date!
[nltk_data] Downloading package movie_reviews to /root/nltk_data...
[nltk_data] Package movie_reviews is already up-to-date!
Finished.
```

```
#credential file with keys
```

```
import credential
import oauth2 as oauth
import json
import re
from textblob import TextBlob
from textblob.sentiments import NaiveBayesAnalyzer
import xlwt
from xlwt import Workbook
```

```
# credential can be stored as config file, or in a database, or in environemt variable
```

```
CONSUMER_API_KEY = credential.consumer_key
API_SECRET_KEY = credential.consumer_secret
ACCESS_TOKEN = credential.access_token
ACCESS_TOKEN_SECRET= credential.access_token_secret
```

```
class OAuthClient():
```

```
    def __init__(self):
        self.consumer = oauth.Consumer(CONSUMER_API_KEY, API_SECRET_KEY)
        self.access_token = oauth.Token(ACCESS_TOKEN, ACCESS_TOKEN_SECRET)
        self.client = oauth.Client(self.consumer, self.access_token)
```

```
    def get_tweets(self, query='%23atamnirbharbharat', count=50, lang='en', result_type='
search_endpoint = "https://api.twitter.com/1.1/search/tweets.json?q={}&result_type=
response, data = self.client.request(search_endpoint)
tweets = json.loads(data)
tweets_list = []
    for tweet in tweets['statuses']:
```

```

        tweets_list.append(tweet['full_text'])
        #print(tweet['full_text'])
    return tweets_list

def clean_tweets(tweets_list):
    cleaned_list = []
    for tweet in tweets_list:
        clean_tweet = re.sub("(RT @\w+)|(@\w+)|(https://\w+/t.co/\w+)|([^\a-zA-Z0-9\s\.\!%,])",
                              "")
        cleaned_list.append(clean_tweet)
    return cleaned_list

# Get Tweets Sentiment
def get_sentiment(text):
    #try:
    blob = TextBlob(text, analyzer=NaiveBayesAnalyzer())
    if blob.sentiment.p_pos >= blob.sentiment.p_neg:
        return 'Positive'
    else:
        return 'Negative'
    #except:
    #print("exception occured")
    #return ""

#Save workbook
def save_workbook(sentiment_result, sheet_name='result'):
    wb = Workbook()
    sheet = wb.add_sheet(sheet_name)

    row = 1
    sheet.write(0,0, "Tweets")
    sheet.write(0,1, "Sentiment_Type")
    for data in sentiment_result:
        print(data)
        sheet.write(row, 0, data[0])
        sheet.write(row, 1, data[1])
        row = row+1

    wb.save('tweets.xls')

if __name__ == "__main__":
    client=OauthClient()
    popular_tweets= client.get_tweets(result_type="popular")
    recent_tweets= client.get_tweets(result_type="recent")
    tweets_list = popular_tweets + recent_tweets
    cleaned_list = clean_tweets(tweets_list)
    sentiment_result = [(tweet, get_sentiment(tweet)) for tweet in cleaned_list]
    save_workbook(sentiment_result)

```



```
( 'In this difficult time, PM still enjoys the overwhelming support of people and
( ' Slowly and steadily nearing completion of all works at factory. will commence
( 'SamajikSamarasta Atamnirbharbharat\nProtection of workers rights and safety\nvia
( ' Slowly and steadily nearing completion of all works at factory. will commence
( 'No words \nNarendermodi ABPnews TimesofIndia hindustanibhau BJPJanSamvad Kejriwa
( ' We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamni
( ' We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamni
( ' Increased tax on Indian good what ever it may be and govt scheme of Atamnirbh
( 'One Swadeshi Movement was started in 1905 for our National Independence... \n\nN
( 'Today the trust with which the people of India are supporting each other is comm
( 'Slowly and steadily nearing completion of all works at factory. will commence t
( ' We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamni
( ' We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamni
( ' We at Techelita deliver rich DataAnalytics Analytics to Help you incorporate th
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( ' Slowly and steadily nearing completion of all works at factory. will commence
( 'Slowly and steadily nearing completion of all works at factory. will commence t
( ' We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamni
( 'First strong step towards Atamnirbharbharat ', 'Positive')
( ' We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamni
( ' We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamni
( ' We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamni
( ' We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamni
( ' We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamni
( ' We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamni
( 'We dont believe in freebies Sir, 1.3 billion Indians strongly believe in Atamnir
( ' Its good at this tough time...I will make the import expensive and help the exp
( 'For the luxurious home decor 180012110027 TollFree for appointments\nluxurysofa
( 'It is time to make India atma nirbhar, become vocal for local PM Modi\nAtamnirbh
( ' M still waiting for visit of the concern person. All are just zipped mou
( ' please consider Avg height of Indian women and not go by international standard
( 'Slogans shifting from India to Bharat by StandupIndia atamnirbharbharat', '
( ' Only going nifty long looking at Dow is real atamnirbhar... For our TV channel
( 'Nitish Kumar reveals his big election promise for upcoming Bihar polls \n\nnatam
( 'Received on whatsapp but true\nIndiaFightsCorona \nIndiaFightsCoronavirus \natam
( 'Ourgreatpmmodiji, our nation proud of you and we all with you, \natamnirbharbhar
( ' India deploys main battle tanks closer to Chinese borderMBT T72M1 ,MBT T90 .\nC
( ' India deploys main battle tanks closer to Chinese borderMBT T72M1 ,MBT T90 .\nC
( ' India deploys main battle tanks closer to Chinese borderMBT T72M1 ,MBT T90 .\nC
( 'India deploys main battle tanks closer to Chinese borderMBT T72M1 ,MBT T90 .\nCh
( ' I you Amul \nFruit amp Nut Chocolate \nMilk\nCheese\nIce Cream\nGhee\nDahi\nF
( ' Dnt spread fake news .. we are under control, every thing open now.. we r free
( ' Well said,but quality should not be compromised.atamnirbharbharat', 'Negative'
```

```
!ls
```

```
↳ credential.py __pycache__ sample_data tweets.xls
```

```
( ' Your skin demands for a special care. So, give a sheer care of natural ingredie
```

```
import pandas as pd
```

```
df = pd.read_excel('tweets.xls')
```

```
df.head(10)
```

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↳
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	Tweets	Sentiment_Type
0	In this difficult time, PM still enjoys the o...	Positive
1	Slowly and steadily nearing completion of all...	Positive
2	SamajikSamarasta Atamnirbharbharat\nProtection...	Positive
3	Slowly and steadily nearing completion of all...	Positive
4	No words \nNarendermodi ABPnews TimesofIndia h...	Positive
5	We dont believe in freebies Sir, 1.3 billion ...	Positive
6	We dont believe in freebies Sir, 1.3 billion ...	Positive
7	Increased tax on Indian good what ever it ma...	Negative
8	One Swadeshi Movement was started in 1905 for ...	Positive
9	Today the trust with which the people of India...	Positive