```
from pytwitter import Api
api =
Api(bearer_token="AAAAAAAAAAAAAAAAAAAAABpPkwEAAAAA1vlIr21NkiIyLaih
%2F0tiENTThGY%3DIHno5qLz4nCeJPi2ApacRD7ZIVaIRNJa6x1ArMELEhCOPGzjIK")

consumer_key = "Y56T0VT1XhGtVp6DJj5nJEyzc"
consumer_secret = "vuSA1JvT9IcxzunwCeNy2y7rOyngWl9WM4WmmgVWz2jImvCfsm"
access_key = "1368800553925451776-1EfiyWH8C3MC5XoTy3vgjW81cfERWM"
access_secret = "2zPt9ykULsy2Vp8YnyVptWlBqp7IjShKSJ3VLOvXqvz8m"

api = Api(
        consumer_key=consumer_key,
        consumer_secret=consumer_secret,
        access_token=access_key,
        access_secret=access_secret
    )

import pandas as pd
final_df = pd.DataFrame()

for company in ['Amazon India', 'Flipkart', 'Snapdeal']:
    next_token = None
    final = []
    for i in range(60):
        results = api.search_tweets(company, max_results = 100,
next_token = next_token)
        next_token = results.meta.next_token
        final.extend([i.text for i in results.data])
    df = pd.DataFrame(final, columns = ['tweet'])
    df['company'] = company
    final_df = final_df.append(df)

final_df.to_csv('reviews.csv', index = False)

final_df= pd.read_csv('reviews.csv')

final_df.head()
```

| | tweet | company |
|---|---|---|
| 0 | Lonely Planet India (Travel Guide) (Spanish Ed... | Amazon India |
| 1 | Uber and Amazon blasted for poor working condi... | Amazon India |
| 2 | Marsh Saga Series \nFour very different women.... | Amazon India |
| 3 | RT @mattmday: Sitting here, mind boggled at th... | Amazon India |
| 4 | Traditional India Living Room Foot Stool Cover... | Amazon India |

```
# final_df.drop_duplicates(subset = ['tweet']).company.value_counts()

import re
from textblob import TextBlob
```

```
def clean_tweet(tweet):
    tweet=tweet.lower()
    '''
    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())

def get_tweet_sentiment(tweet):
    '''
    Utility function to classify sentiment of passed tweet
    using textblob's sentiment method
    '''
    # create TextBlob object of passed tweet text
    analysis = TextBlob(clean_tweet(tweet))
    # set sentiment
    if analysis.sentiment.polarity > 0:
        return 'positive'
    elif analysis.sentiment.polarity == 0:
        return 'neutral'
    else:
        return 'negative'

final_df['sentiment'] =
final_df.tweet.apply(clean_tweet).apply(get_tweet_sentiment)

final_df.head()
```

| | tweet | company | sentiment |
|---|---|---|---|
| 0 | Lonely Planet India (Travel Guide) (Spanish Ed... | Amazon India | negative |
| 1 | Uber and Amazon blasted for poor working condi... | Amazon India | negative |
| 2 | Marsh Saga Series \nFour very different women.... | Amazon India | neutral |
| 3 | RT @mattmday: Sitting here, mind boggled at th... | Amazon India | positive |
| 4 | Traditional India Living Room Foot Stool Cover... | Amazon India | neutral |

```
final_df.shape

(17867, 3)
```