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# **Twitter Sentimental Analysis**

## **Project Documentation**

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## **Project Description:**

This documentation is for a Twitter Sentimental Analysis tool ([gitHub Link](#)). It works by getting a search term from the user and the number of latest tweets that want to analyze. Analyzing these tweets is done by getting the effective tweets from the tweet main content and then checking their polarity and determine whether the tweet is Very positive, positive, neutral, negative and very negative.

## How to use the project? :

- Enter Search term you want to look for it.

```
(base) omarashour@omarashour-Lenovo-Ideapad-500-15ISK:~/Documents/twitter-sentimental-analysis$ python3 main.py

TWITTER SENTIMENTAL ANALYSIS TOOL

(//Author: Ashouj Mokishi & Usama)

Enter keyword/hashtag to search about: mo salah
Enter how many tweets to analyze: 200
```

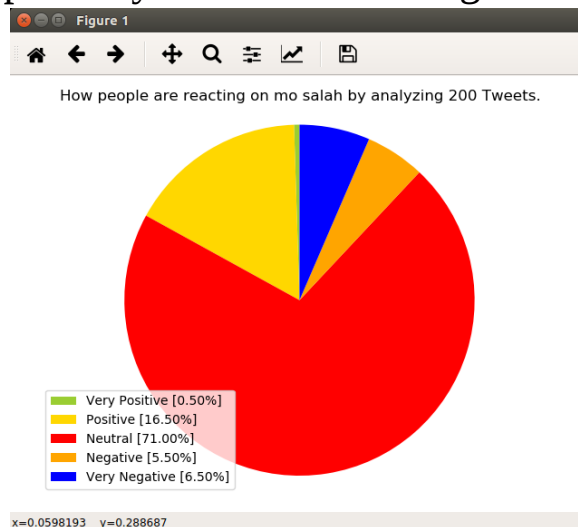
- Enter the number of tweets you want to look for.

```
TWITTER SENTIMENTAL ANALYSIS TOOL

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Enter keyword/hashtag to search about: mo salah
Enter how many tweets to analyze: 200
```

- The results appear to you as the following:



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## How it works technically? :

- Login to Twitter Developers Application Account
- Take the search term from user
- Take the number of tweets to search for from user
- Filter each tweet from entities and names
- Tokenize the tweets in order to deal with them as normal single words
- Filter each tweet from stop words
- Filter each tweet from search terms and tags
- Filter each tweet from URLs
- Filter each tweet from Single Characters
- Get adjectives and nouns only from each tweet
- Check polarity of the remaining words in each tweet by comparing with available data sets
- Display Final Result to the user as a pie chart plot

## Available Self-Implemented Methods:

Method	Usage	Algorithm Implemented
removeEntities(text, entities):	Filter each tweet from entities and names	After getting the Entities and names using Scapy API we loop on the current gained tweet and return it with out these entities
removeSingles(textlist):	Filter each tweet from Single Characters	Return the tweet text after removing any word with the length == 1
removeStopWords(textlist, stopwords):	Filter each tweet from stop words	Get the stop words from a data set and form word net then loop on the tweet text and return it without these stop words
removeURLS(textlist):	Filter each tweet from URLS	Return the tweet text after looping on it and removing and words that starts with "http"
getAdjectivesAndNouns(textlist):	Get adjectives and nouns only from each tweet	Using word net we determine if the word is adjective OR noun and we return the adjectives and noun only form the tweet text
removeSearchTermAndTags(textlist, searchTerm):	Filter each tweet from search terms and tags	Return the tweet text with out the search term, any hash tags and mentions to the user by removing any word starts with any of these characters "@, #" and the search term itself
percentage(part, whole):	Get the percentage of every value in the polarity to be well displayed for the user	Normal percentage equation is enabled

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## APIs Used:

- nltk from anaconda
- tweepy
- spacy
- termcolor
- matplotlib