MINI PROJECT REPORT
(4th Sem project)

Twitter Sentiment Analysis

Submitted by:

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CERTIFICATE

This is to certify that the project report entitled Twitter Sentiment Analysis, submitted to the Department of Computer Science and Engineering, Graphic Era Deemed to be University, in partial fulfilment for the award of the degree of Bachelor of Technology in Computer Science and Engineering, is a record of bonafide work carried out by Shruti Agarwal, University Roll No. 2017043, under the supervision and guidance of Mr. Akshay Rajput.

<u>ACKNOWLEDGEMENT</u>

I take this opportunity to present my votes of thanks to all those guideposts who really acted as lightening pillars to enlighten my way throughout this project that has led to successful and satisfactory completion of this project.

I am really grateful to Mr. Akshay Rajput for providing me with an opportunity to undertake this project and providing me with all the facilities. I am highly thankful to sir for his active support, valuable time and advice, whole-hearted guidance, sincere cooperation and pains-taking involvement during the study and in completing the assignment of preparing the said project within the time stipulated.

Lastly, I am thankful to all those, particularly the various friends, who have been instrumental in creating proper, healthy and conductive environment and including new and fresh innovative ideas for me during the project, without their help, it would have been extremely difficult for me to prepare the project in a time bound framework.

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Introduction:

Sentiment analysis refers to identifying as well as classifying the sentiments that are expressed in the text source. Tweets are often useful in generating a vast amount of sentiment data upon analysis. These data are useful in understanding the opinion of the people about a variety of topics.

In my project I have done sentiment of tweets which take Realtime data of tweets using Tweepy.

Using our model we can analyse-

- Sentiment of our own tweet
- Sentiment of tweet of any user
- Comparison of Sentiment of two users
- Sentiment of any keyword in tweets

The objective of model is to tell whether the tweet is positive negative or neutral, also show count of tweets which corresponds to positive, negative or neural tweets.

Problem Statement:

Development of model showing sentiment of a tweet, indicating whether the tweet shows positive negative or neutral sentiment. Also based on a given scenario model shows the count of no. of positive, negative or neutral tweets during a given time period.

Motivation:

Online reputation is one of the most precious assets for brands. A bad review on social media can be costly to a company if it's not handled effectively and swiftly.

Twitter sentiment analysis allows you to keep track of what's being said about a product or service on social media, and can help you detect angry customers or negative mentions before they escalate.

At the same time, Twitter sentiment analysis can provide valuable insights that drive decisions. What do customers love about your brand? What aspects get the most negative mentions? What were the leaders' opinions during a political campaign?

All these thing drive me to delve deep and build a model which could solve all these aspects and could visualise the sentiments of a particular tweet clearly which could help consumers and producers in real time.

Methodology:

- Get connected with twitter API
- Import necessary Libraries
- Perform cleaning of data(removal of @mentions, '#' and hyperlinks
- Derive the sentiment of each tweet
- Classify the tweet as positive, negative or neutral
- Visualize the results

Tools /Algorithm Used:
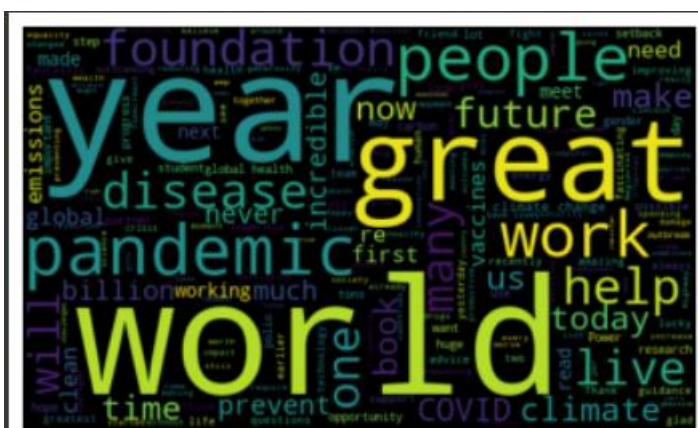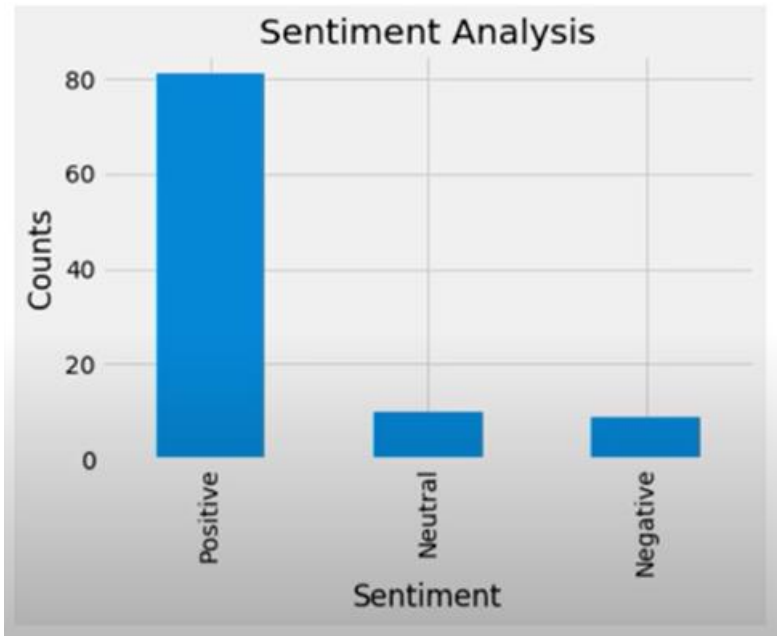
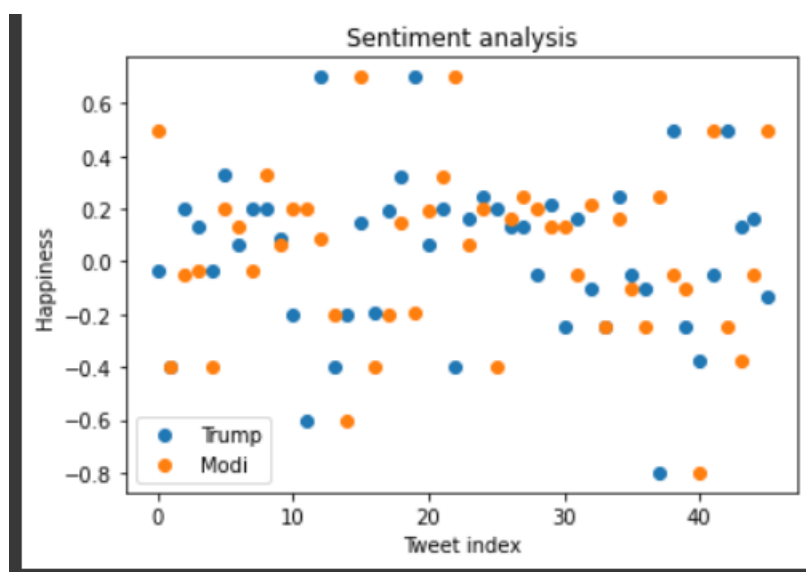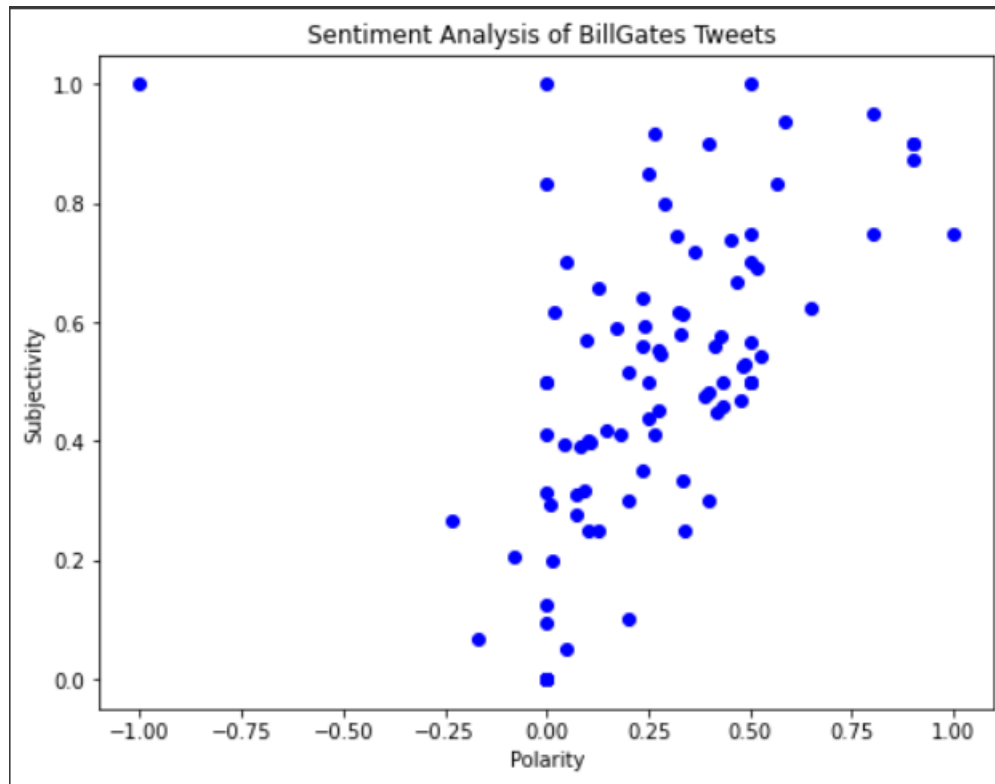**Language:**

- Python (Language)

Libraries used:

- TextBlob
- tweepy
- re
- pandas
- matplotlib

Software used:

- Colab

Output Screenshots:

Sentiment Analysis of BillGates Tweets

Sentiment analysis

Future Scope:

- Model can give sentiments of any particular time period
- Can give better visualization
- Better prediction algorithm to generate better results
- Given any hashtag, predict sentiment and the time period when highest used

References:

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