EAS 503: PROGRAMMING AND DATABASE FUNDAMENTALS

PROJECT DESCRIPTION: GROUP 12

Rahul Patil (rpatil@buffalo.edu)
Anand (anand6@buffalo.edu)
Supreeth (ssuresh7@buffalo.edu)

Project Overview:

21st century is a digital notebook, where everything influences everything else. In such an era, a powerful microblogging such as Twitter is a sharp sword. Today, tweets don't only make policies, they move markets. In this project, we employ the data from such a powerful microblogging tool to analyze how a tech giant, a global icon can influence the emotions of the millions connected, and in turn how these emotions play a role in the rise and fall of stocks of an Organization.

Twitter, apart from being an amazing communication tool is an open mine for text and social web analysis. Here, we will be employing a dataset, consisting of tweets from one of the brightest Minds of 21st Century, Elon Musk to do a sentiment analysis and its impact on the stock prices of Tesla.

Sentiment analysis or Opinion Mining refers to the use of natural language processing and text analysis to extract subjective information from the source.

Objectives:

- Implementation of a text based sentimental analysis model
- Analysis of Musk's tweeting frequency
- Sentiment analysis on Tweets about Musk.
- Trends of the stock prices of Tesla based on the tweets during that time and emotional reaction of the crowd towards such tweets

Tasks:

- Building a corpus to extract Tweets from Elon Musk using python
- Saving Tweets into a database
- Scoring the tweets based on either they are positive or negative and adding a column for the same
- Visualizing the trends of tweets, emotions associated to them and the stock prices
- Analysis and Conclusion

Expectation and Result:

The expectation and end result of this project is a visual based sentiment analysis model, that can extract tweets from Twitter of any person or organization and derive the trends in the tweeting patterns and their influence on the stock prices.