Prediction Of Presidential Impact and Outcome using Twitter Data

README

The prerequisites to run this application are

- Your system needs to have python installed in it and also jupyter notebook. Jupyter notebook can be installed using the command pip install jupyter notebook. To open jupyter notebook, run python -m jupyter notebook
- Other packages in python like NLTK, Tweepy, Pandas, tweet-processor, NumPy, textblob, sklearn, matplotlib. To perform these installation of packages, we just have to run pip install package_name in your system.

Modules of the code

- TweetsExtraction.ipynb : Extraction file which extracts data from the Twitter for a particular date range which for us is the range before and after elections
- Sentiment_analysis_for_before_Elections_Data.ipynb: This file contains the code for data preprocessing and sentiment analysis performed on the data that corresponds to the data collected in the range of time before the elections.
- Sentiment_analysis_for_after_Elections_Data.ipynb: This file performs preprocessing and sentiment analysis on the data collected after elections

Running the application:

- To run the application, extraction of data must be done. Running the TweetsExtraction file collects the data
- We need to run the sentiment_analysis_before_data and sentiment_analysis_after_data to get the results of the sentiment analysis
- The results are displayed in the notebook itself which compares various machine learning models trained on the data that can give us the sentiment of people towards Joe Biden and compares the accuracies of the models used which tells us which model gives better results. Data analysis is also shown which tells us how many tweets are tweeted in a day and all those kinds of analysis