Mandate 4

Contributors:

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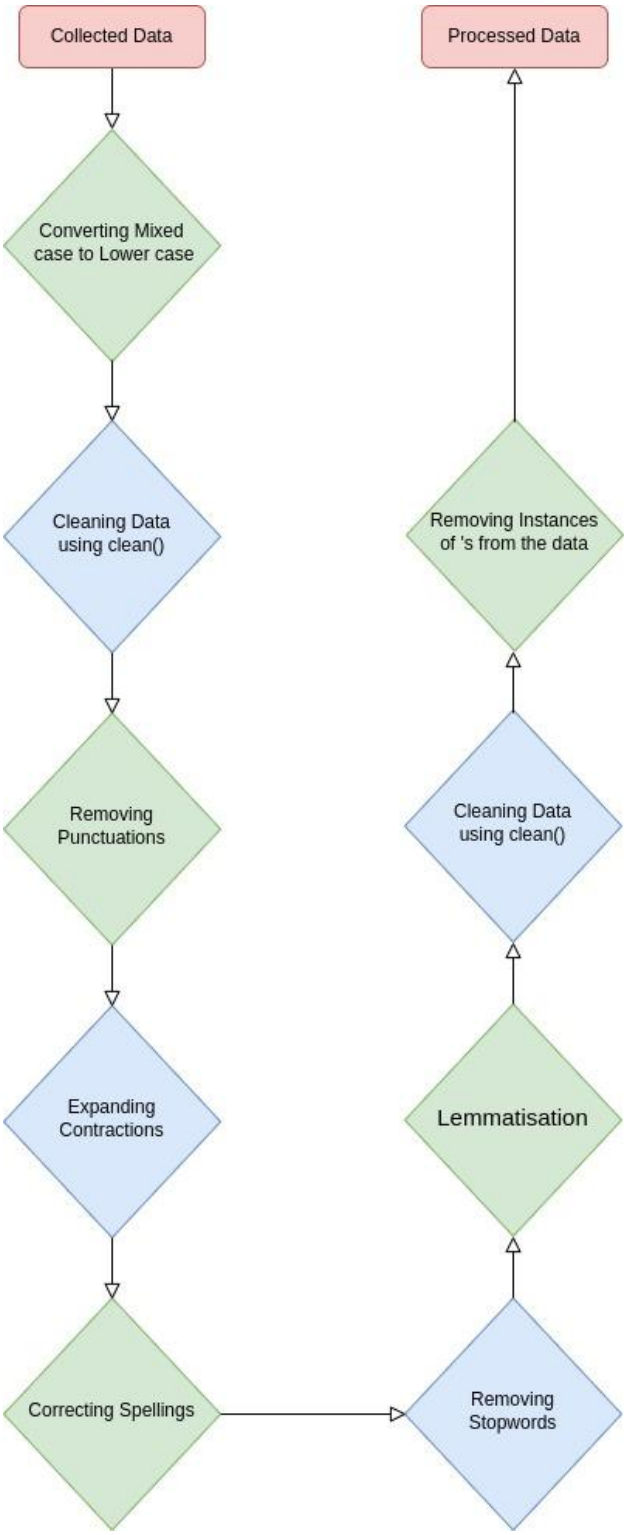

This flowchart signifies the lexical processing pipeline. We use Word2Vec to convert the word to vector. The Sen2Vec is built on the top of Word2Vec. The vectors of the words are obtained and the average of the vectors is taken. This new vector represents the vector of the sentence.

Then we apply KMEANS Clustering on the vectors of the sentences.

Using the cluster class of the tweets, we predict the number of positive, negative, and neutral tweets. Using these counts, we find the sentiment of the company in the market.

Dataset—Tweets about apple company on 2nd December 2014.

Result Comparing Data was taken from - https://www.macrotrends.net/stocks/charts/AAPL/apple/stock-price-history

This is the graph on 2nd December. We got a score of 0.413 (approx.), using our analysis of the tweets. This signifies that the sentiment is moderately positive. Hence, the next day, the share price increased.

The price of an Apple stock on 2nd December 2014 was 25.8726 dollars.

The price of an Apple stock on 3rd December 2014 was 26.1660 dollars.

Sentiment Value Received

sentiment = (count_positive-count_negative)/len(vectors)

The above sentiment will vary from [-1 to 1] for the collection of tweets.

1 → being all tweets were positive

-1 → being all tweets were negative

0 → means an equal number of positive and negative tweets.

0.4 → Moderately positive sentiment

-0.4 → Moderately negative sentiment

This is like a scale of -1 to 1. If the sentiment is 0, it means neutral. If positive, it means sentiment is positive and the degree of positiveness is determined linearly by the magnitude of the value received and vice versa.

LIKERT SCALE RATING

Following is the Likert-Scale rating, which depicts how much this mandate contribution is relevant to each of the outcomes: CO1 to CO6.

Course Outcome Parameters	Level covered in this mandate
CO1	****
CO2	****
CO3	***
CO4	—
CO5	**
CO6	***