Assignment 4 Analysis

Q2: Prediction.

Analysis:

In Q2, the prediction varies with the flags lemmatized and no_stopwords as follow:

- If none is set, the prediction percentage is 63
- If lemmatized is set, the prediction percentage is 78
- If no_stopword is set, the prediction percentage is 63
- If both are set, the prediction percentage is 79

As seen above, lemmatization and removing stop words from the text gives higher prediction percentage, i.e. number of correct predictions as compared to the original data. Though only removing stop words without lemmatization has no effect on the prediction percentage, which means lemmatization has a very strong effect on the prediction model.

Q3: Precision

Precision for the 4 cases was:

- 1. 0.552, both not set
- 2. 0.519, lemmatized set
- 3. 0.539, no stopword set
- 4. 0.519, both set

Lemmatization has inverse effect on precision.