

- 5.1 The data set used was consumer reviews of amazon products. It included names of amazon products with their manufacturing, consumer reviews and other columns. Dataset has 34660 rows and 21 columns.
- 5.2 For the data pre-processing part I removed stopwords like 'the', 'is', 'of' because they don't add meaning to the sentence. Secondly I dropped reviews.dateAdded, reviews.didPurchase, reviews.id, reviews.userCity, reviews.userProvince columns as they contained major missing values. For some columns like 'reviews.numHelpful' I replaced missing values with the most repeated values as those columns had less number of missing values. Moreover I removed missing values from reviews.text column using dropna function. Furthermore I removed whitespaces and converted text to lower case in 'reviews.text', 'categories', 'reviews.title', 'reviews.username' & 'name' columns.
- 5.3 I performed sentimental analysis on sample product reviews. The results were satisfactory. The prediction of sentiments (positive, negative, neutral) for most of sample product reviews were right except 1.
- 5.4 The main strength of model is that it can be used for large amount of data regarding customer feedback, reviews to predict sentiments of consumers whether they are satisfied with the product or not. So it helps the brand in decision making. The limitation of model is that it can wrongly predict the sentiments of consumers. Another limitation is that sentimental analysis relies on the pre-processing of the data, if the data is not cleaned, it might produce biasness.