**ABSTRACT**

Twitter is a popular micro blogging service where users create status messages or small text-based Web posts called tweets. Twitter currently receives about 190 million tweets a day, in which people share their comments regarding a wide range of topics. A large number of tweets include opinions about products and services. Analyzing these tweets to extract opinions or sentiments help us determine the popularity of the products or services. This project is aimed at building a sentiment analyzer tool for analyzing tweets which can be used to accomplish the above goal of determining the popularity.

This project mainly focuses on classifying the tweets as to belong to one of positive, negative or neutral category using pre classified tweets as training data. We have used the Naïve Bayes algorithm for implementing the sentiment analyzer tool. The Sentiment analyzer tool developed can give an approximate estimation of the success of a product or service. The tool has been developed using java programming language for the back end and JSP and HTML for the front end and the tool has been presented as a web application.

The application retrieves tweets real time based on the user’s query, analyzes and classifies them as to belonging to one of positive, negative or neutral category, summarizes the result and presents the result in a format such as a pie chart, graph which in turn helps in determining the popularity of a subject. The algorithm’s efficiency is mainly dependent on the quality of the training data, for the training data chosen for this project we obtained an accuracy of close to 42% with precision and recall standing out at 45.65% and 67.74% respectively.