

State wise Stock Market Sentiment Analysis Using Web Scrapping

Aim of the Project:

The main aim of the project is to find state-wise sentiment analysis on stock market for planning of social media keywords and kind of advertisement. This particular project requires web scrapping tools to collect text data from social media platforms like Facebook, Instagram, Twitter, Pinterest. The collected data is then processed using NLP Algorithm for specific keywords and creating WordCloud for graphical representation of Keyword frequencies, so that we get an idea which keywords are appearing more frequently. At the end, output will be a list of keywords that can be used for statewise sentiment analysis regarding Stock Market for social media marketing and Advertisements.

Approach:

a. Data Collection by Web Scrapping:

It is a automated process that runs on chrome driver and opens social searcher, which links to google search, Facebook, Instagram, Twitter, and Pinterest domains. Search keywords are provided state-wise like 'Stock Market Learn Karnataka.' Websites of the platforms opened sequentially according to search keywords and data is extracted from all the mentioned platforms. The output would be a .txt file that consists of text-based data.

b. Data Cleaning, Keywords Extraction and Word Cloud:

Merged all the text files which were generated on each search keyword using merging tools. Further the merged .txt file is processed through KeyBERT to get Keywords and building WordCloud using the keywords. Using the word cloud we can understand the sentiment of the particular state regarding Stock Market. Using this sentiment analysis the client channelized the ads accordingly to each states.

Expected Results:

The result is a list of keywords that can be used for state-wise sentiment analysis of the stock market. By analyzing the keywords output by keyBERT, a user can better plan their social media advertising by understanding what types of keywords they need to use on Facebook, Twitter, Pinterest, and Instagram, as well as the way people from different states view the stock market, and by using Word Cloud, the keywords are visualized based on word frequency extracted from the input text file. The word cloud (image) is used to understand the overall sentiment of an individual state towards the stock market in a single image whereas KeyBERT helps in determining the specific keywords that need to be considered before selecting keywords and designing advertisement creatives.