**CHAPTER 6**

**MODULE DESCRIPTION**

**6.1 Dashboard**

In this module a distinct dashboard for each and every user is given so that they can have their personalised charts and information. The dashboard consists of list of companies that are integrated with the prediction so that user can search the companies that they need. Stock screener based on candle stick charts has also been added so that traders can search for specific patterns for a wide range of stocks. Buy and Sell signals based on algo-trading strategies are also shown to the user for the stocks that are shown in the dashboard to help the user take right entry and exit in the trades to be executed.

**6.2 Algorithmic Trading**

Algorithmic Trading is a process for executing orders using pre-programmed trading instructions to account for variables such as price, timing and volume. Exploratory Data Analysis (EDA) has been performed to find trading signals for entry and exit points in a specific stock. Based on the results obtained, buy and sell signals are shown to the user to help him enter or exit a trade at the right point and get more profits.

**6.3 Stock Price Prediction**

Long-Short Term Memory (LSTM) a commonly used RNN has been used mainly to predict the prices of the stocks. Considering the type of data that our model is fed and the ability of the RNN to allow information to persist unlike standard feed forward neural network (they could only process single data points e.g. Images), a LSTM is best fit for these types of problems. Using this method the end of the day stock price can be predicted. To make the model even more accurate, a CNN layer has been introduced to get better accuracy which makes the model a hybrid model. Microservice architecture has been implemented to integrate the features of our platform such as predicting stock prices and buying and selling signals which are hosted in different servers into our web-app.

**6.4 Stock Screener**

Stock screener plays a vital role for every trader. Picking the right stocks is as important as making the right trades with the perfect execution. In order to satisfy this requirement, a stock screener based on candlestick patterns in various stocks has been made accessible to the user to filter out stocks that fit the requirements of his trade. A user can select any candlestick pattern and get the list of stocks that show the particular candlestick pattern.

**6.5 News**

News plays a very vital role in the trading hours as a single news can change the entire price-action of the stock. To keep the traders well informed about the latest news in the stock market, a news section has been introduced into the web-app which shows all the latest stock news.