

SQL-Assignment: Stock Market Analysis

The problem talks about the two of India's biggest stock exchanges BSE and NSE. A lot of trading happens on the basis of technical and fundamental analysis.

One of the most basic technical analysis used by the stock traders is the Moving average method. We calculated the 20 days and 50 days moving averages. The 20 days moving average was referred to 'Short term' moving average and 50 days as 'Long Term' moving average.

When the short term moving average crosses the long term moving average, it is the signal to BUY the stock and when the opposite happens, it is the signal to SELL. The change should be in significant numbers. When there is no significant difference in short term and long term moving averages, this signals HOLD, which means if you have the stock keep it, if don't, then don't buy it.

The dataset we worked on contained 6 different stocks, taken from the NSE website for the dates between 1-Jan-2015 to 31-July-2018.

We created a schema and imported all the csv files as different tables.

We made new tables for all the 6 stocks containing the 'Date', 'Close Price', '20 day MA' and '50 Day MA'. Then with the help of the short term and long term moving averages created new tables for all the stocks containing a column 'Signal', which defines the BUY, SELL and HOLD signals for that particular period.

A Master Table containing the Date and close price of all the stocks were created as the close price of the stocks having their names as the column names.

Lastly a function 'Signals' was created which takes the dates as input and gives out the signal from the bajaj table.

From the tables containing the signals for buying and selling, the inference I got is 'Whenever a BUY signal is encountered and it has again a BUY signal afterwards, you should buy on the second signal, because that is when the stocks get low priced, which will give more number of stocks at a certain price. And whenever a SELL signal is seen, you should SELL the stocks if it is followed by a HOLD signal, because that is when the stocks is highly priced and one can get more value for their stocks'.