

Assignment - Stock Market Analysis

- The dataset provided here has been extracted from the NSE website.
- The Stock price data provided is from 1-Jan-2015 to 31-July-2018 for six stocks:
 1. Eicher Motors
 2. Hero
 3. Bajaj Auto
 4. TVS Motors
 5. Infosys
 6. TCS
- We have given four tasks in this assignment and I have performed one by one each.
 1. Created a new table named 'bajaj1' containing the date, close price, 20 Day MA and 50 Day MA. (This must be done for all 6 stocks)

	Date	Close Price	20 Day MA	50 Day MA
▶	2015-03-13	2022.9	2153.8324999999995	2283.7999999999997
	2015-03-16	2030.25	2142.2574999999997	2275.323
	2015-03-17	2045.65	2131.455	2267.1659999999997
	2015-03-18	2034.55	2121.1500000000005	2258.654

2. Created a master table containing the date and close price of all the six stocks. (Column header for the price is the name of the stock)

	Date	Bajaj	TCS	TVS	Infosys	Eicher	Hero
▶	2015-01-01	2454.1	2548.2	276.85	1975.8	15239.15	3107.3
	2015-01-02	2453.5	2570.85	267.8	2013.45	15065.55	3097.75
	2015-01-05	2460.15	2537.9	271.2	1996.6	15133.55	3118.65
	2015-01-06	2440.35	2446.55	268	1956.85	14753.1	3011.8
	2015-01-07	2447.2	2416.8	278.55	1964.8	14945.55	2977.1

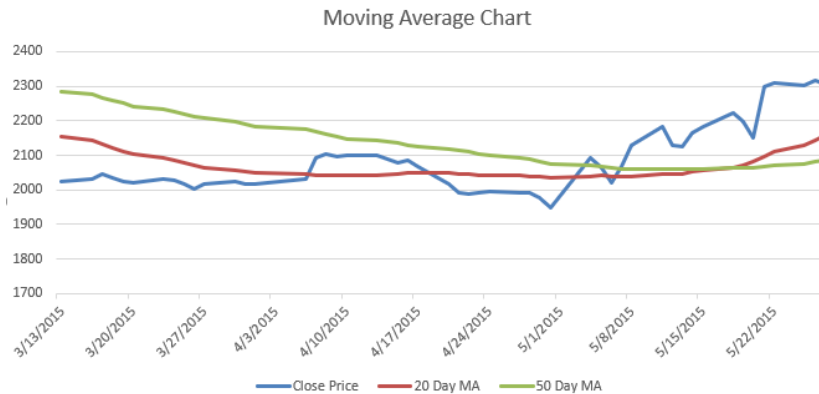
3. Use the table created in Part(1) to generate buy and sell signal. Store this in another table named 'bajaj2'. Perform this operation for all stocks.

	Date	Close Price	Signal
▶	2015-03-13	2022.9	Hold
	2015-03-16	2030.25	Hold
	2015-03-17	2045.65	Hold
	2015-03-18	2034.55	Hold

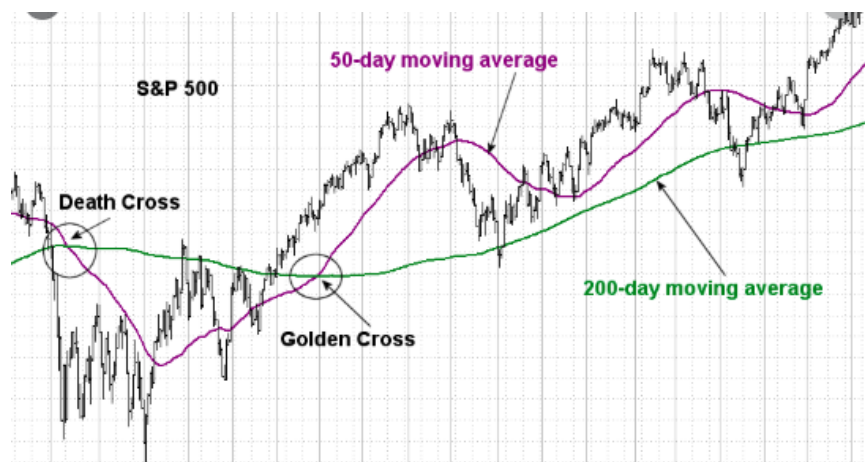
4. Created a User defined function, that takes the date as input and returns the signal for that particular day (Buy/Sell/Hold) for the Bajaj stock.

	signal_val
▶	Buy

- The **moving average (MA)** is a simple technical analysis tool that smooths out price data by creating a constantly updated average price. The average is taken over a specific period, like 10 days, 20 minutes, 30 weeks or any time period the trader chooses.
 - Below is **Moving Average (MA)** Chart for 20 and 50 Day.



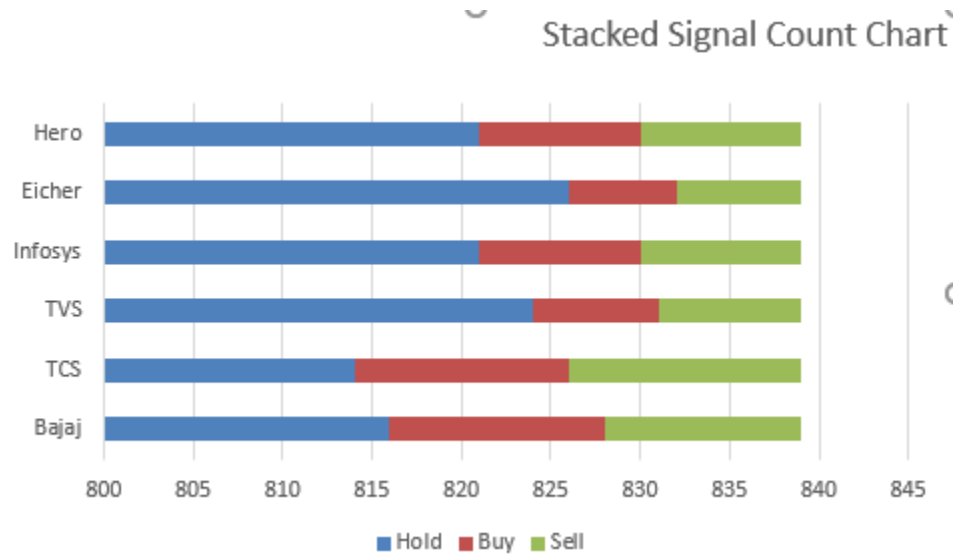
- When the shorter-term moving average crosses above the longer-term moving average, it is a signal to **BUY**, as it indicates that the trend is shifting up. This is known as a **Golden Cross**.
- On the opposite when the shorter term moving average crosses below the longer-term moving average, it is a signal to **SELL**, as it indicates the trend is shifting down. It is sometimes referred to as the **Death Cross**.



Ref- Google Image

➤ **Inference from Assignment –**

- As total I can see TCS has more Buy and Sell as compare to all other company.



--End--