



# STOCK MARKET ANALYSIS

By JAY GANESH CHAROLE

## PROBLEM STATEMENT

A stock market, equity market, or share market is a gathering of buyers and sellers of stocks (also known as shares), which represent ownership claims on businesses; these may include securities listed on a public stock exchange as well as stock that is only traded privately, such as shares of private companies sold to investors through equity crowdfunding platforms. Typically, investments are undertaken with an investment strategy in mind.

The National Stock Exchange of India Ltd.'s main index is the NIFTY 50. (NSE). The Index follows the performance of a basket of blue-chip businesses, India's largest and most liquid equities. It contains 50 of the nearly 1600 businesses listed on the NSE, accounts for approximately 65 percent of its float-adjusted market value, and is an accurate representation of the Indian stock market.

The NIFTY 50 index encompasses significant sectors of the Indian economy and provides investment managers with exposure to the Indian market through a single, efficient portfolio. The Index has been in operation since April 1996 and is ideal for benchmarking, index funds, and index-based derivatives.

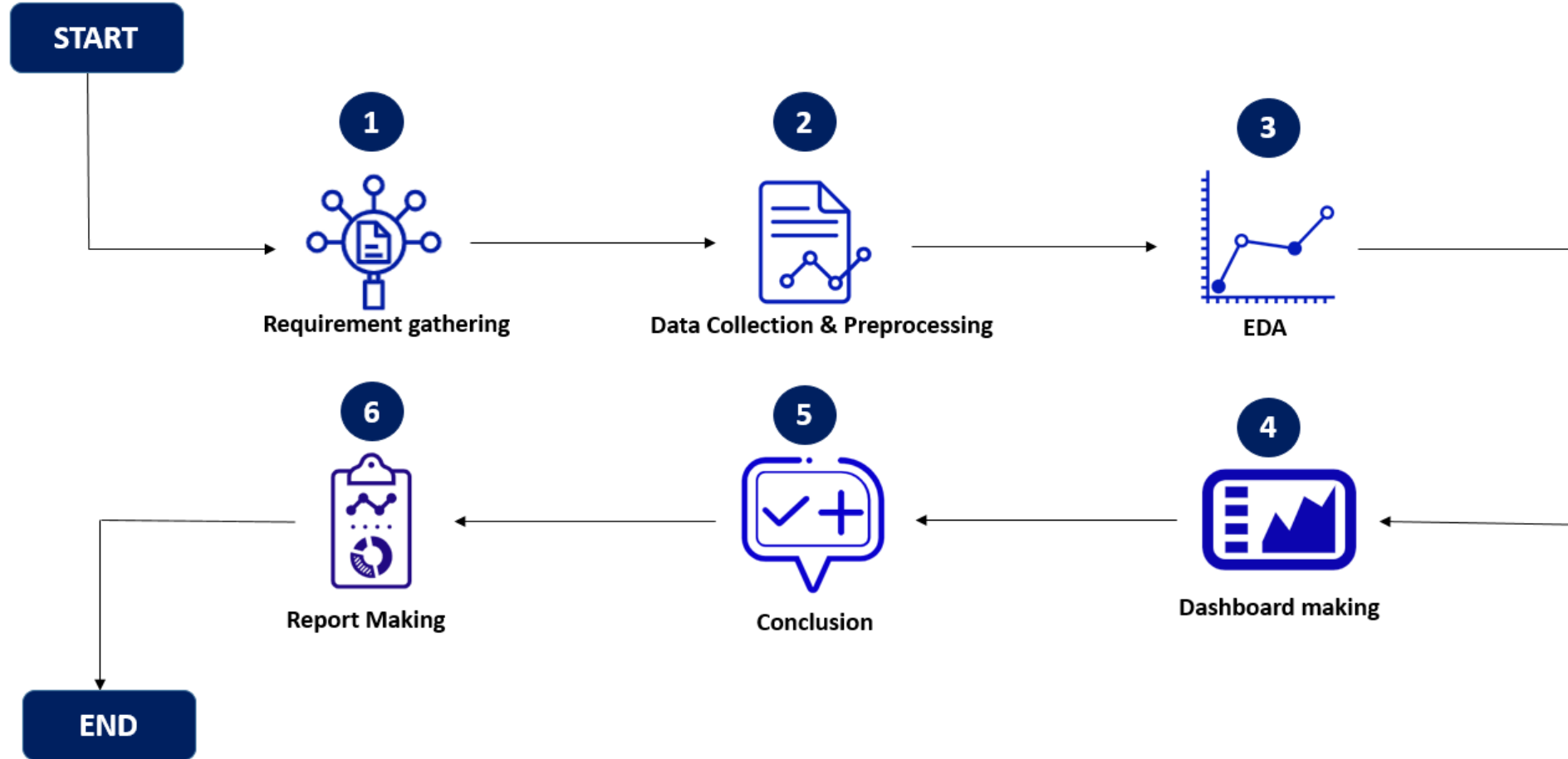
## ABOUT DATASET

The data represents the price history and trading volume of the fifty stocks in the NIFTY 50 index from India's NSE (National Stock Exchange). All databases are on a daily basis, with pricing and trading values distributed across. CVS files for each stock, as well as a metadata file containing some macro-information on the stock. The data ranges from January 1, 2000 to April 30, 2021.

## ABOUT DATASET

- **Series:** Here EQ stands for equity series of stock market.
- **Prev Close:** The closing price of the stock for the day before.
- **Open,High, Low, Last, Close:** The opening price, highest price, lowest price, last price and closing price of ICICI shares on the current day.
- **VWAP:** Volume Weighted Average Price,the **target variable** to predict. VWAP is a trading benchmark used by traders that gives the average price the stock has traded at throughout the day, based on both volume and price.
- **Volume:** Volume of shares traded on the current day.
- **Turnover:** It is a measure of stock liquidity calculated by dividing the total number of shares traded over a period by the average number of shares outstanding for the period.
- **Trades:** total number of trades on the current day.
- **Deliverable Volume:** is the quantity of shares which actually move from one set of people to another set of people.
- **Deliverable(%):** Deliverable volume in percentage.

## FLOW OF PROJECT







## Stock Market

DASHBOARD



### Symbol

- ☐ ADANI PORTS
- ☒ ASIANPAINT
- ☐ AXIS BANK
- ☐ BAJAJ-AUTO
- ☐ BAJAJFINSV
- ☐ BAJA AUTOFIN
- ☐ BAJFINANCE
- ☐ BHARTI
- ☐ BHARTIARTL
- ☐ BPCL
- ☐ BRITANNIA
- ☐ CIPLA
- ☐ COALINDIA
- ☐ DRREDDY
- ☐ EICHERMOT
- ☐ GAIL
- ☐ GRASIM
- ☐ HCLTECH
- ☐ HDFC
- ☐ HDFCRANK

# ASIANPAINT

01-01-2007

30-04-2021

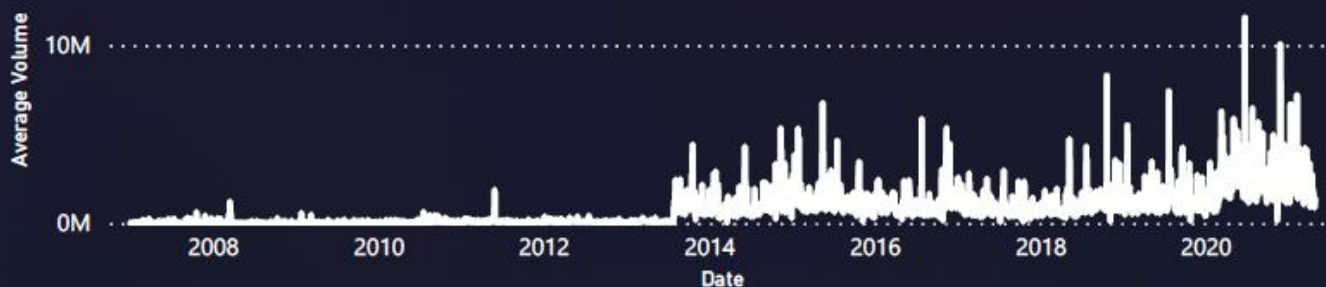


Close Price, Close Price (High) - Selected Time and Close Price (LOW) - Selected Time by Date

● Close Price ● Close Price (High) - Selected Time ● Close Price (LOW) - Selected Time



Average Volume by Date



103348912M

Average Turnover



2,536.40

Close Price (Final)



5,213.10

Close Price (High)



1,656.38

Low Price



7,50,259.60

Average Daily Volu...



# Stock Market

DASHBOARD



Name	Symbol	Close Price	Close Price (Final)	Close Price (30 Days)	Close Price (-30 Days)
NIFTY50_all	NTPC	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	ONGC	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	POWERGRID	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	RELIANCE	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	SBIN	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	SESAGOA	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	SHREECEM	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	SSLT	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	SUNPHARMA	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	TATAMOTORS	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	TATASTEEL	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	TCS	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	TECHM	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	TELCO	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	TISCO	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	TITAN	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	ULTRACEMCO	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	UNIPHOS	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	UPL	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	VEDL	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	WIPRO	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	ZEEL	1,525.13	2,564.09	2,564.09	2,584.09
NIFTY50_all	ZEETELE	1,525.13	2,564.09	2,564.09	2,584.09
NESTLEIND	NESTLEIND	7,512.04	16,309.25	16,309.25	17,109.25
MM	M&M	866.44	752.55	752.55	792.55
MARUTI	MARUTI	3,515.11	6,455.65	6,455.65	6,855.65
LT	LT	1,543.31	1,340.45	1,340.45	1,470.45
KOTAKBANK	KOTAKBANK	883.83	1,748.80	1,748.80	1,778.80
Total		1,525.13	2,564.09	2,564.09	2,584.09



1,548.02

High Price

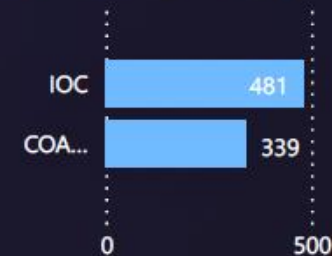


1,503.22

Low Price

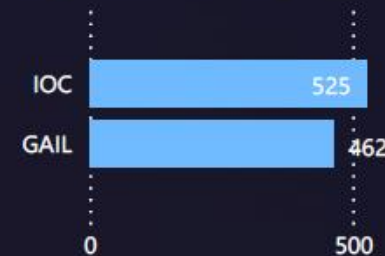
## BEST PERFORMERS

Top Performers (30D)



30 Days

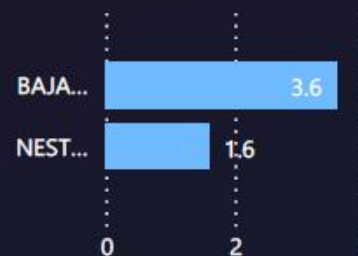
Top Performers (365D)



365 Days

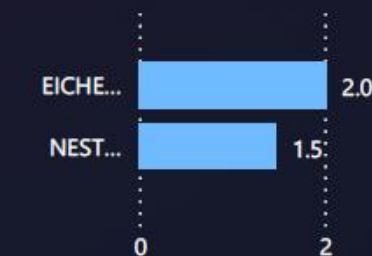
## WORST PERFORMERS

Worst Performers (30D)



30 Days

Worst Performers (365D)



365 Days





# Stock Market

DASHBOARD

29-11-2010

30-04-2021



Date	ADANI PORTS	ASIAN PAINT	AXIS BANK	BAJAJ-AUTO	BAJAJ FINSV	BAJAJ AUTOFIN	BAJAJ FINANCE	BHARTI	BHARTIARTL	BPCL	BRITANNIA	CIPLA	COALINDIA
29-11-2010	143.50	2,585.75	1,329.10	1,592.70	460.45	713.60	713.60	338.70	338.70	680.30	402.85	338.10	317.45
30-11-2010	152.40	2,648.90	1,366.85	1,576.60	472.10	707.35	707.35	360.15	360.15	675.05	402.45	343.30	317.25
01-12-2010	153.65	2,680.40	1,424.45	1,571.20	481.65	713.30	713.30	350.55	350.55	697.95	410.30	365.15	320.95
02-12-2010	150.35	2,651.85	1,455.35	1,574.30	484.35	741.85	741.85	346.10	346.10	685.80	412.45	364.95	324.85
03-12-2010	147.05	2,670.05	1,406.15	1,600.15	486.70	719.95	719.95	345.60	345.60	673.85	398.90	370.25	321.95
06-12-2010	147.00	2,682.10	1,382.45	1,585.45	487.10	707.15	707.15	345.35	345.35	668.50	404.55	370.00	320.40
07-12-2010	145.70	2,707.65	1,324.50	1,606.90	482.05	671.75	671.75	348.85	348.85	661.05	400.45	371.35	320.00
08-12-2010	141.50	2,658.05	1,251.50	1,565.70	459.40	670.05	670.05	347.65	347.65	677.70	411.15	368.65	318.85
09-12-2010	137.75	2,643.60	1,245.75	1,532.65	459.00	661.00	661.00	338.45	338.45	673.30	400.05	349.90	313.20
10-12-2010	146.60	2,664.65	1,323.55	1,490.55	458.45	687.45	687.45	331.00	331.00	680.70	402.35	347.45	317.30
13-12-2010	148.25	2,697.25	1,320.65	1,496.85	459.20	698.65	698.65	332.05	332.05	678.80	405.60	355.40	323.15
14-12-2010	151.45	2,740.95	1,303.35	1,493.45	457.80	705.50	705.50	335.15	335.15	675.80	405.30	359.00	325.30
15-12-2010	148.30	2,711.20	1,297.60	1,470.15	458.90	690.50	690.50	339.70	339.70	703.35	405.75	354.50	327.85
16-12-2010	148.05	2,706.15	1,309.35	1,454.35	459.55	688.05	688.05	344.30	344.30	699.50	404.55	356.70	320.70
20-12-2010	144.30	2,764.80	1,270.90	1,451.50	453.40	688.00	688.00	335.00	335.00	691.40	399.50	365.75	316.00
21-12-2010	149.70	2,916.20	1,318.35	1,452.10	456.40	684.25	684.25	332.85	332.85	683.40	404.00	366.60	313.30
22-12-2010	149.95	2,941.50	1,311.65	1,444.90	444.20	681.70	681.70	343.25	343.25	696.00	401.10	361.80	314.05
23-12-2010	145.30	2,963.90	1,314.10	1,445.10	450.00	701.40	701.40	343.30	343.30	688.35	397.85	359.70	312.95
24-12-2010	143.75	2,887.75	1,322.00	1,444.90	451.30	693.00	693.00	348.60	348.60	672.45	396.75	363.70	312.15
27-12-2010	143.65	2,839.70	1,316.60	1,456.75	454.75	689.05	689.05	341.90	341.90	666.40	395.35	370.10	307.30
28-12-2010	140.85	2,812.50	1,288.90	1,467.00	472.90	699.95	699.95	342.35	342.35	664.00	398.90	371.15	303.75
29-12-2010	141.35	2,817.75	1,312.40	1,484.30	470.75	699.10	699.10	354.00	354.00	669.10	399.80	366.65	310.25
30-12-2010	141.70	2,822.90	1,333.80	1,480.15	465.75	703.85	703.85	357.45	357.45	659.20	401.40	369.05	308.05
31-12-2010	144.05	2,878.70	1,350.10	1,541.00	462.85	703.60	703.60	358.80	358.80	658.40	413.50	369.80	314.75
03-01-2011	145.05	2,874.55	1,367.65	1,476.50	470.40	704.75	704.75	359.35	359.35	659.95	409.35	372.50	317.30
04-01-2011	148.55	2,836.20	1,347.95	1,429.80	468.20	700.40	700.40	356.40	356.40	653.55	409.60	379.25	319.20
05-01-2011	157.60	2,880.50	1,310.90	1,374.50	464.75	697.50	697.50	349.00	349.00	632.55	410.00	376.35	309.80
Total	277.67	1,797.86	799.39	2,413.11	3,336.15	2,657.89	2,657.89	374.88	374.88	540.00	2,404.44	514.67	287.72



# OVERALL ANALYSIS

## IMPORTANT KPI'S

This are some of the important KPI's:

- 1) **High Price:** High Price is the price which is highest for that particular stock.
- 2) **Low Price:** Low Price is the price which is lowest for that particular stock.
- 3) **Close Price(High):** It represents the price at the Close Time which is High.
- 4) **Close Price (Final):** It represents the price at the Close Time which is Final.
- 5) **Average Daily Volume:** It represents the average volume of different stocks.



1,548.02

High Price



103348912M

Average Turnover



2,536.40

Close Price (Final)



5,213.10

Close Price (High)



1,656.38

Low Price



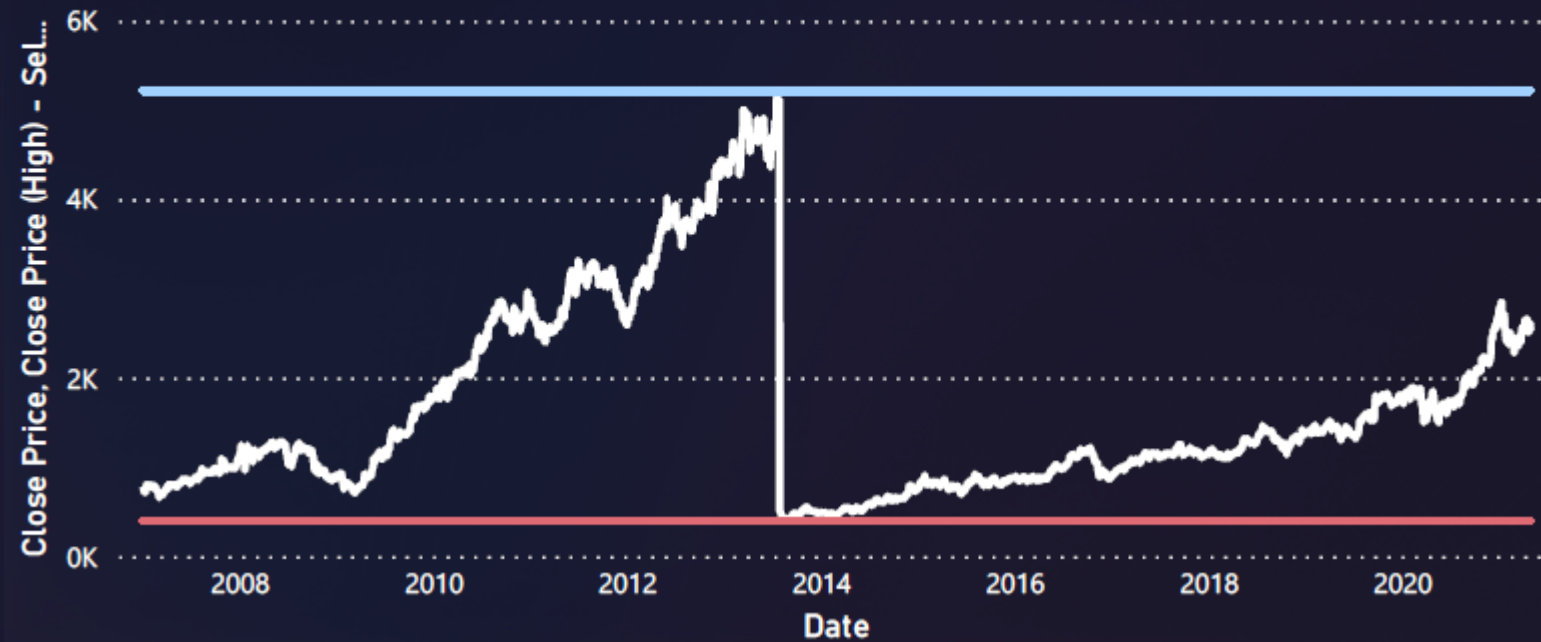
7,50,259.60

Average Daily Volu...

## CLOSE PRICE ANALYSIS

Close Price, Close Price (High) - Selected Time and Close Price (LOW) - Selected Time by Date

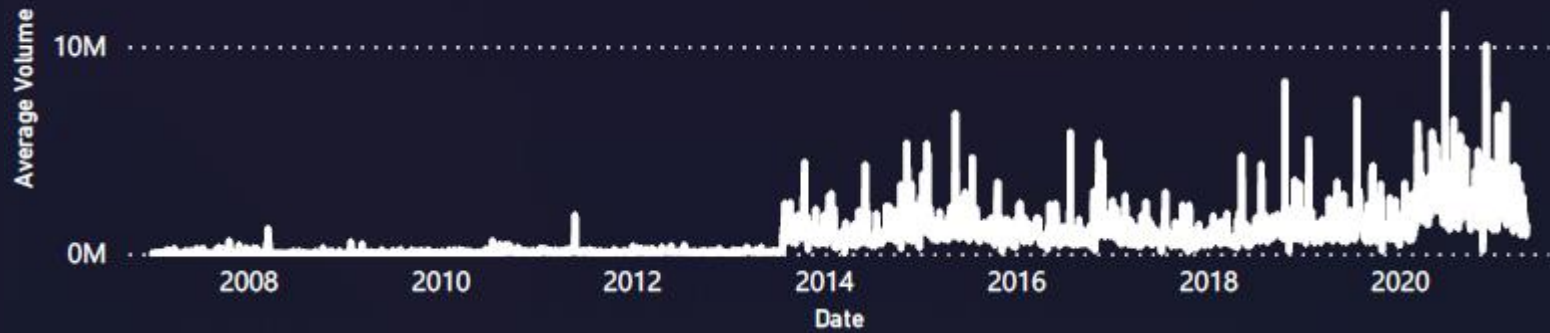
● Close Price ● Close Price (High) - Selected Time ● Close Price (LOW) - Selected Time



The visual show the Close Price for the Selected Time and date for various stock profiles.



## AVERAGE VOLUME ANALYSIS

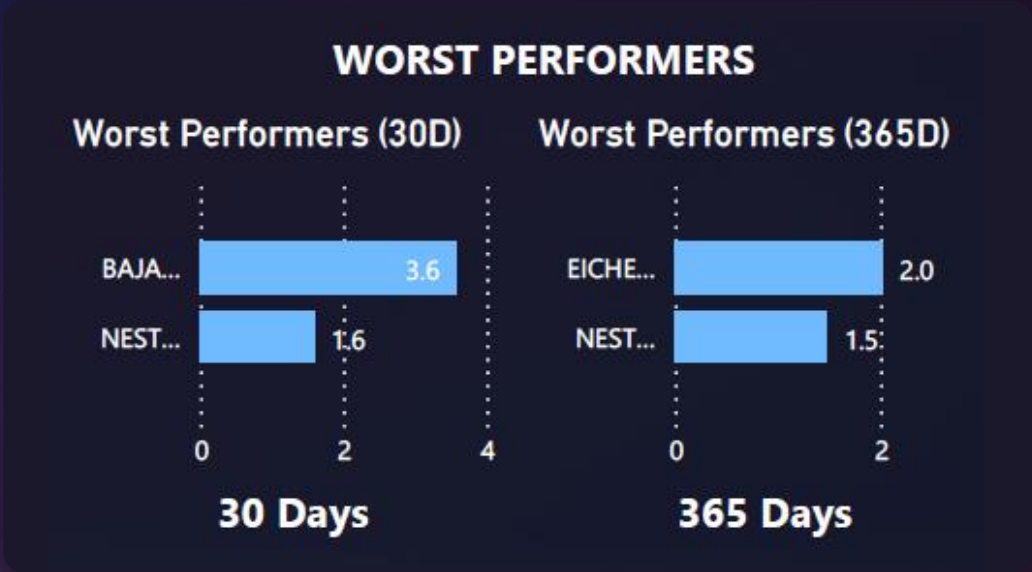


The visual shows the average volume taken by users for various years for a particular stock. It may change stock to stock.

BEST AND WORST PERFORMERS



Here we can see the Best Performers analysis for 2 categories i.e. 30 Days and 365 Days. For 30 Days Top 2 are stock of IOC and COALINDIA. For 365 Days Top 2 are IOC and GAIL. IOC is both the sections it means IOC is performing well.



Here we can see the Worst Performers analysis for 2 categories i.e. 30 Days and 365 Days. For 30 Days Worst 2 are stock of BAJAJFINSV and NESTLEINDIA. For 365 Days Worst 2 are EICHERMOT and NESTLEINDIA. NESTLEINDIA is both the sections it means NESTLEINDIA is not performing well.

## ABOUT DATASET

The dataset used is stock market data of the Nifty-50 index from NSE (National Stock Exchange) India over the last 20 years (2000 - 2019)

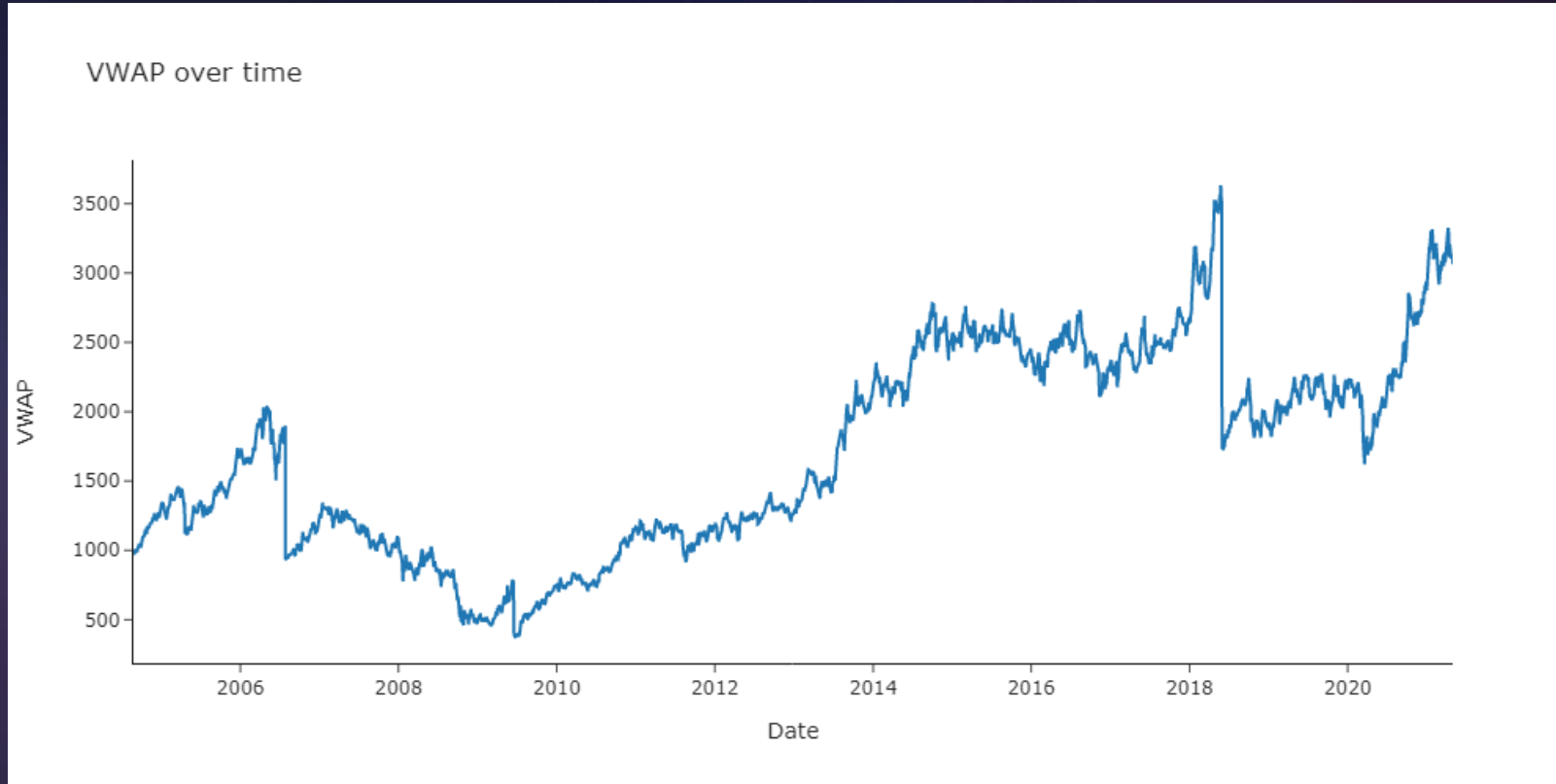
The historic VWAP (Volume Weighted Average Price) is the target variable to predict. VWAP is a trading benchmark used by traders that gives the average price the stock has traded at throughout the day, based on both volume and price.

Among all my favourite is TATA. So we will analyze data for TCS, TATA MOTORS and TATA STEELS



# OVERALL ANALYSIS

## TCS – VWAP OVER TIME

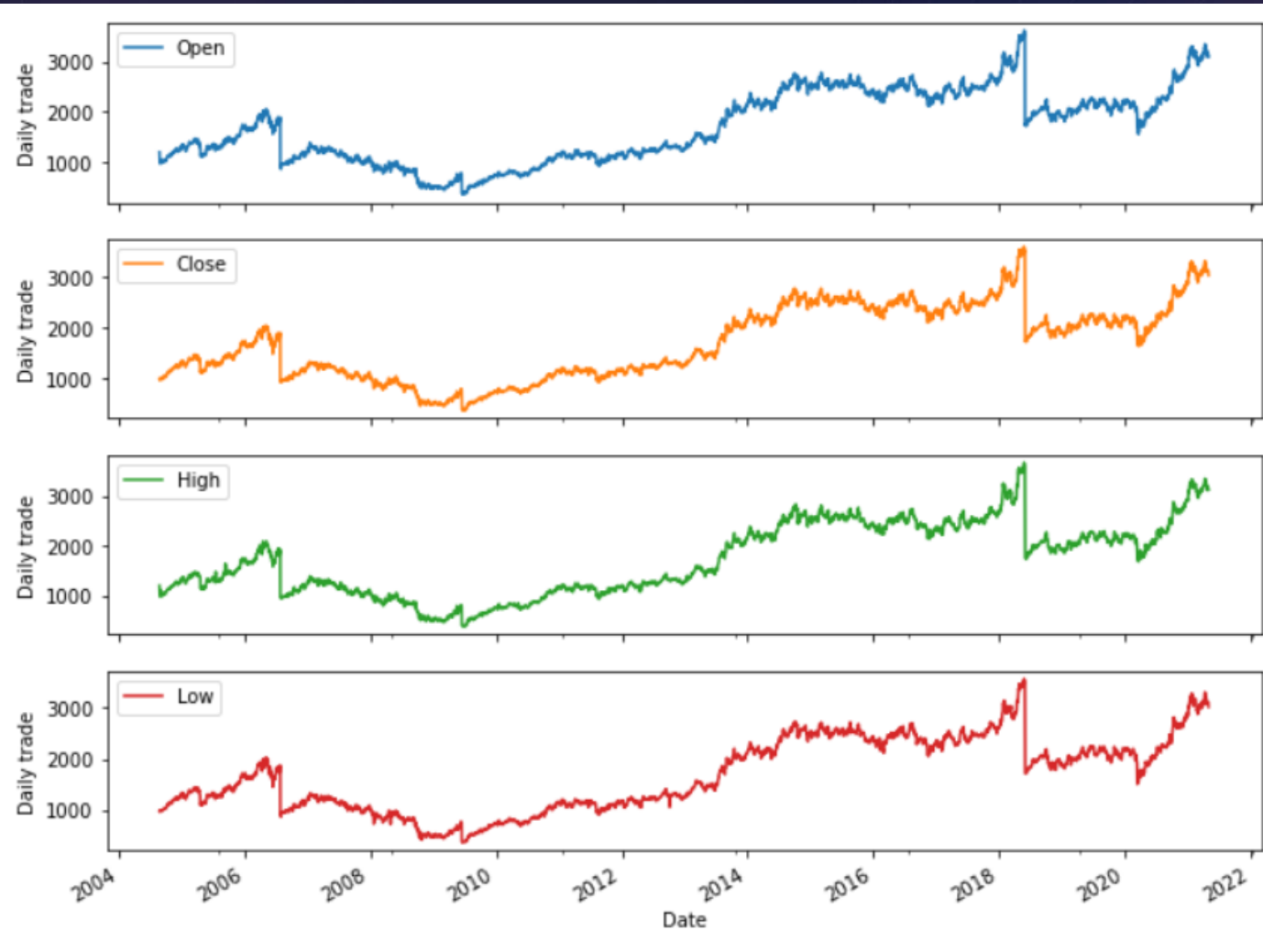


We can observe that there was growth in 2006 than it has a fall and from 2010 it is increasing only.

# Stock Market

## ANALYSIS

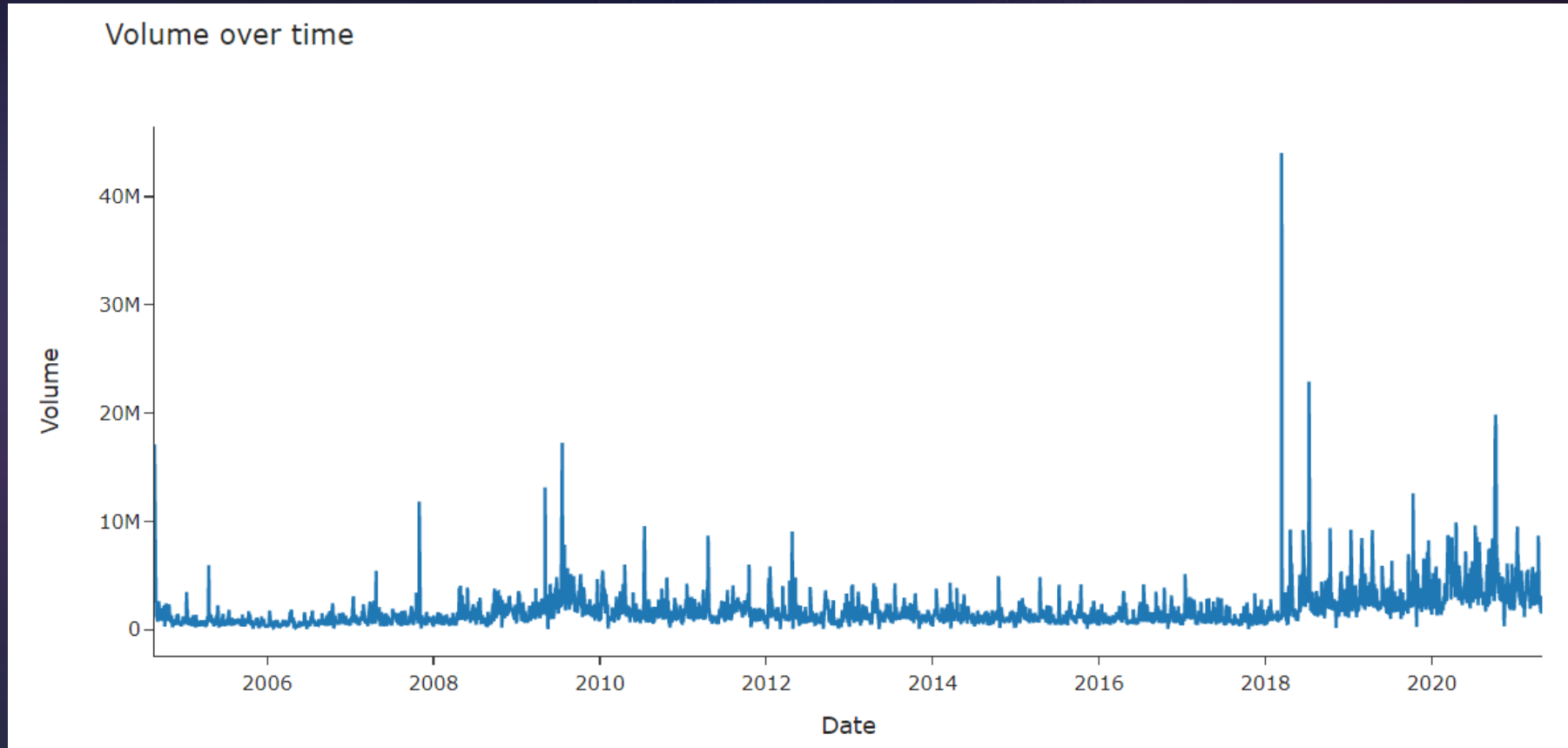
### TCS – OPEN, CLOSE, HIGH, LOW ANALYSIS



We can observe that for TCS all the aspects are same for years.



## TCS – Volume over Time



There are lots of up and down fluctuations in the Volume. The highest fluctuations is from 2018 to 2021.

## TATA MOTORS – VWAP OVER TIME

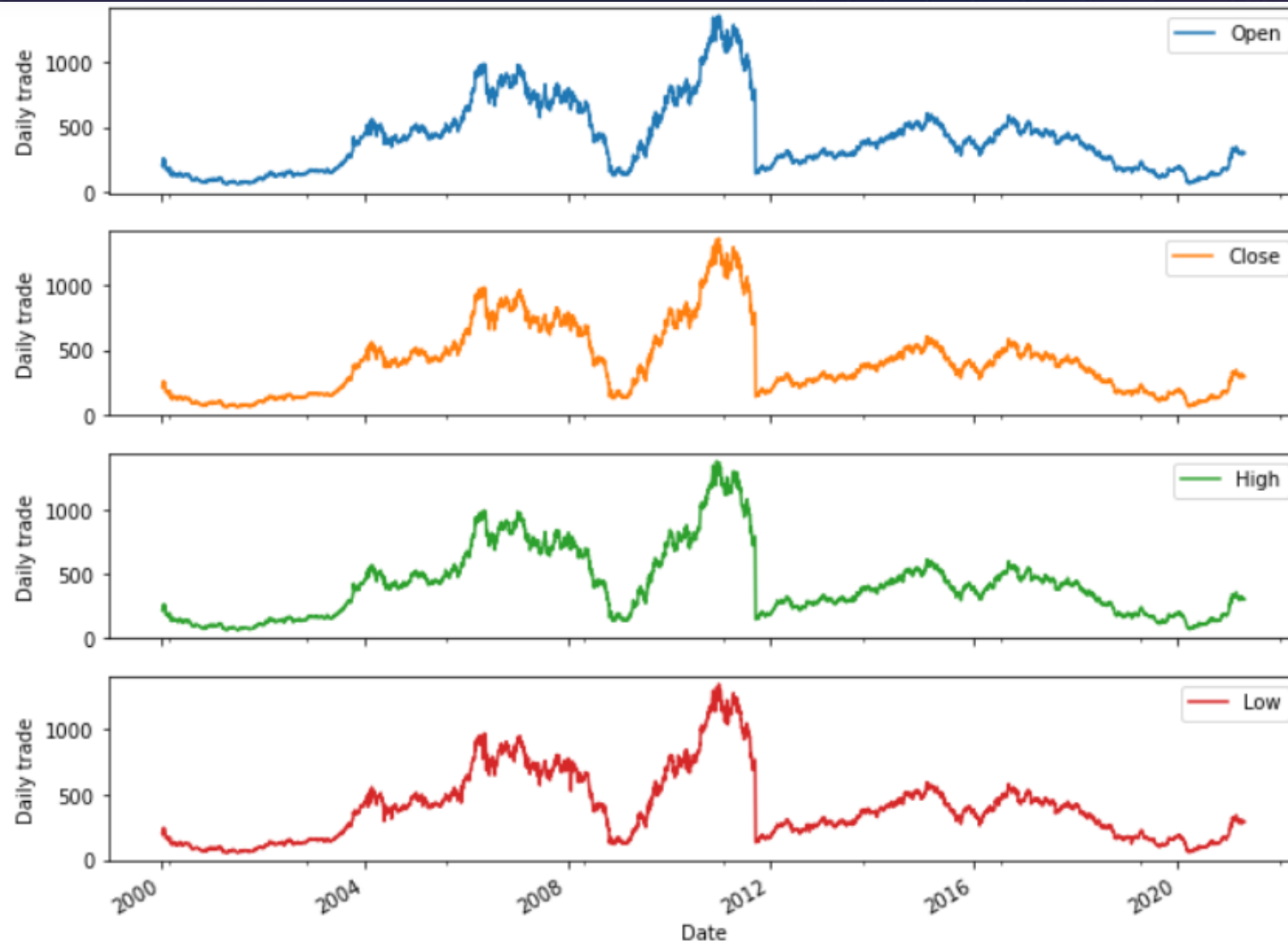


We can observe from 2004 there is increase and 2008 it had fallen in 2010 it raised again and again fall down in 2012 and after 2013 it was increasing.

# Stock Market

ANALYSIS

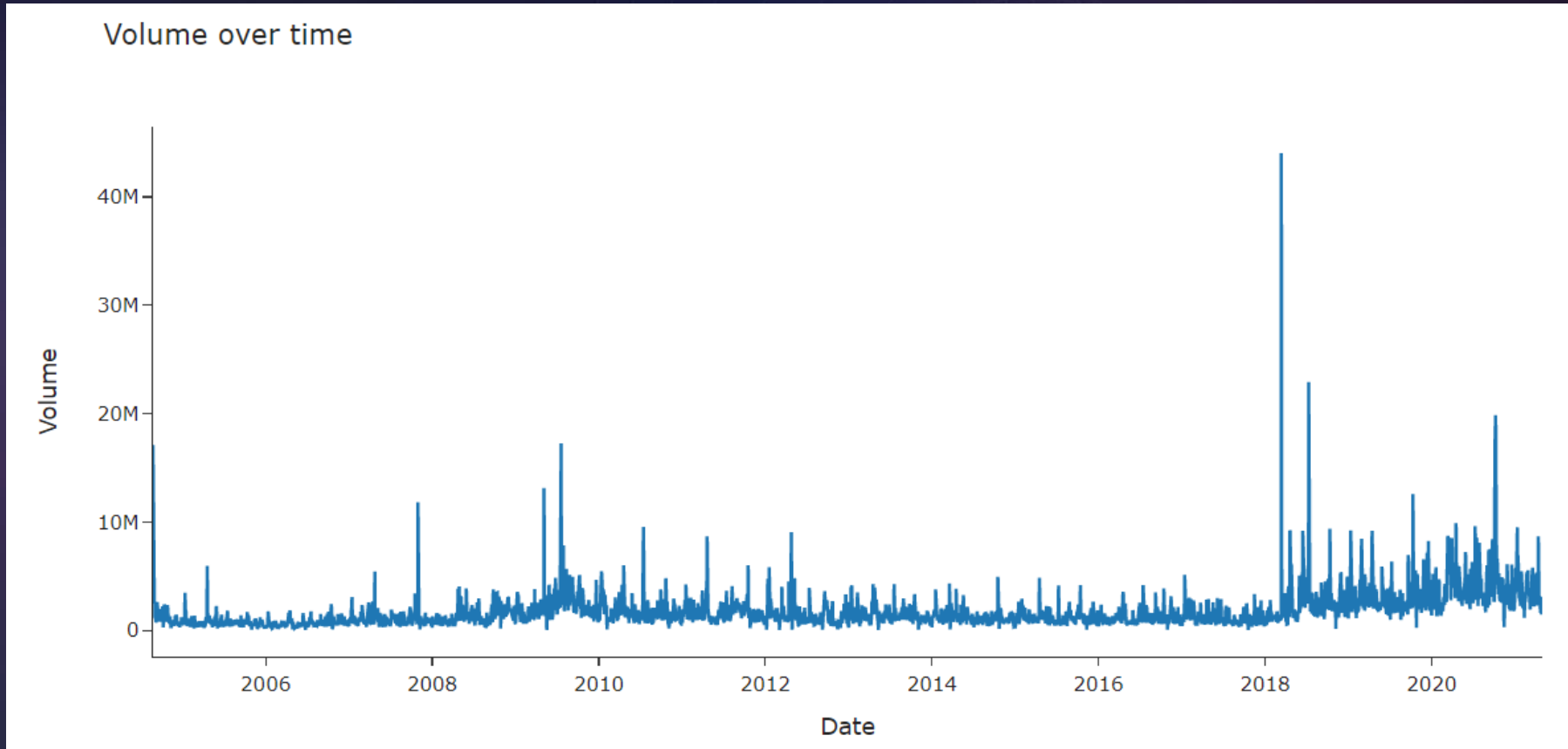
## TATA MOTORS – OPEN, CLOSE, HIGH, LOW ANALYSIS



We can observe that for TCS all the aspects are same for years.

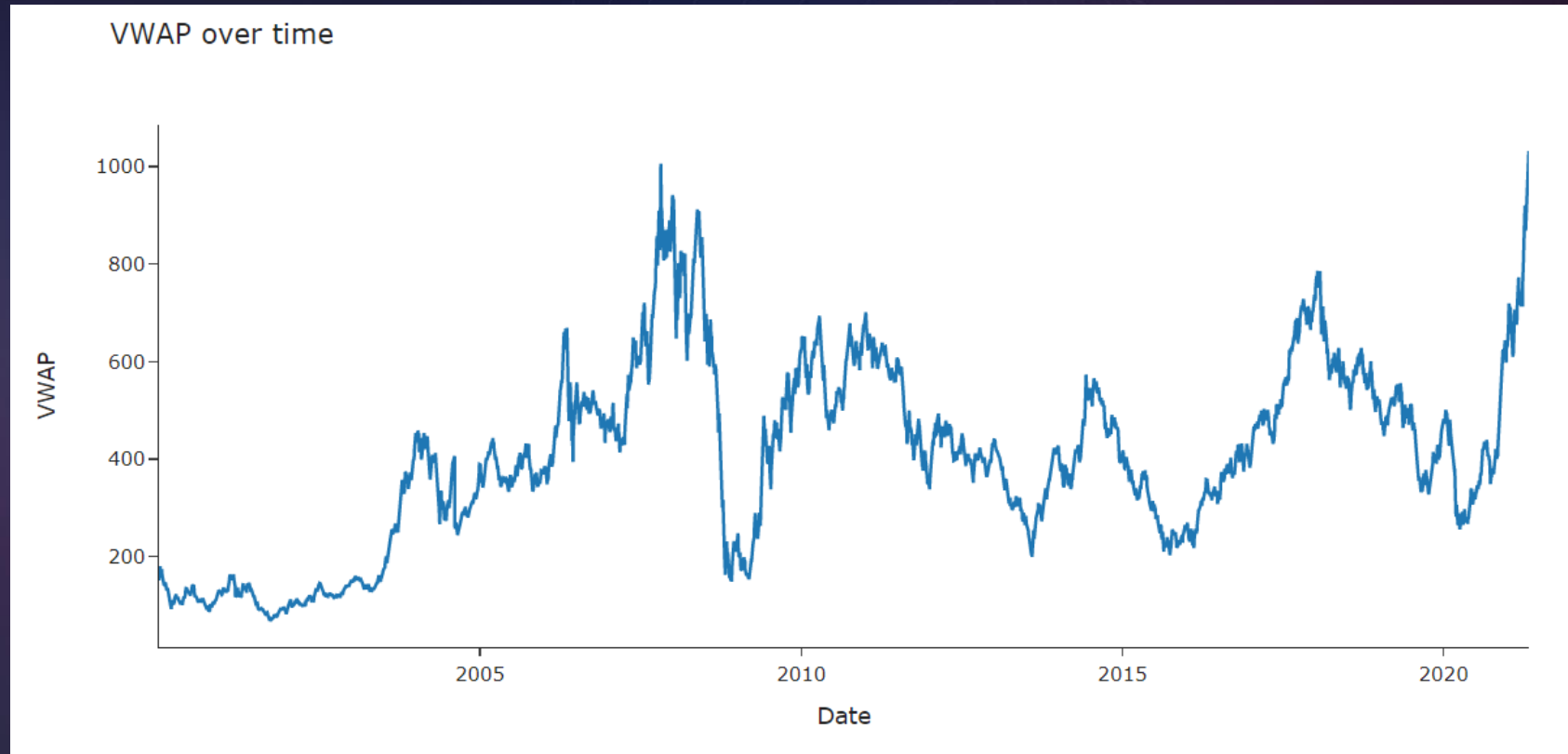


## TATA MOTORS – Volume over Time



There are lots of up and down fluctuations in the Volume. The highest fluctuations is from in the year of 2019

## TATA STEELS– VWAP OVER TIME

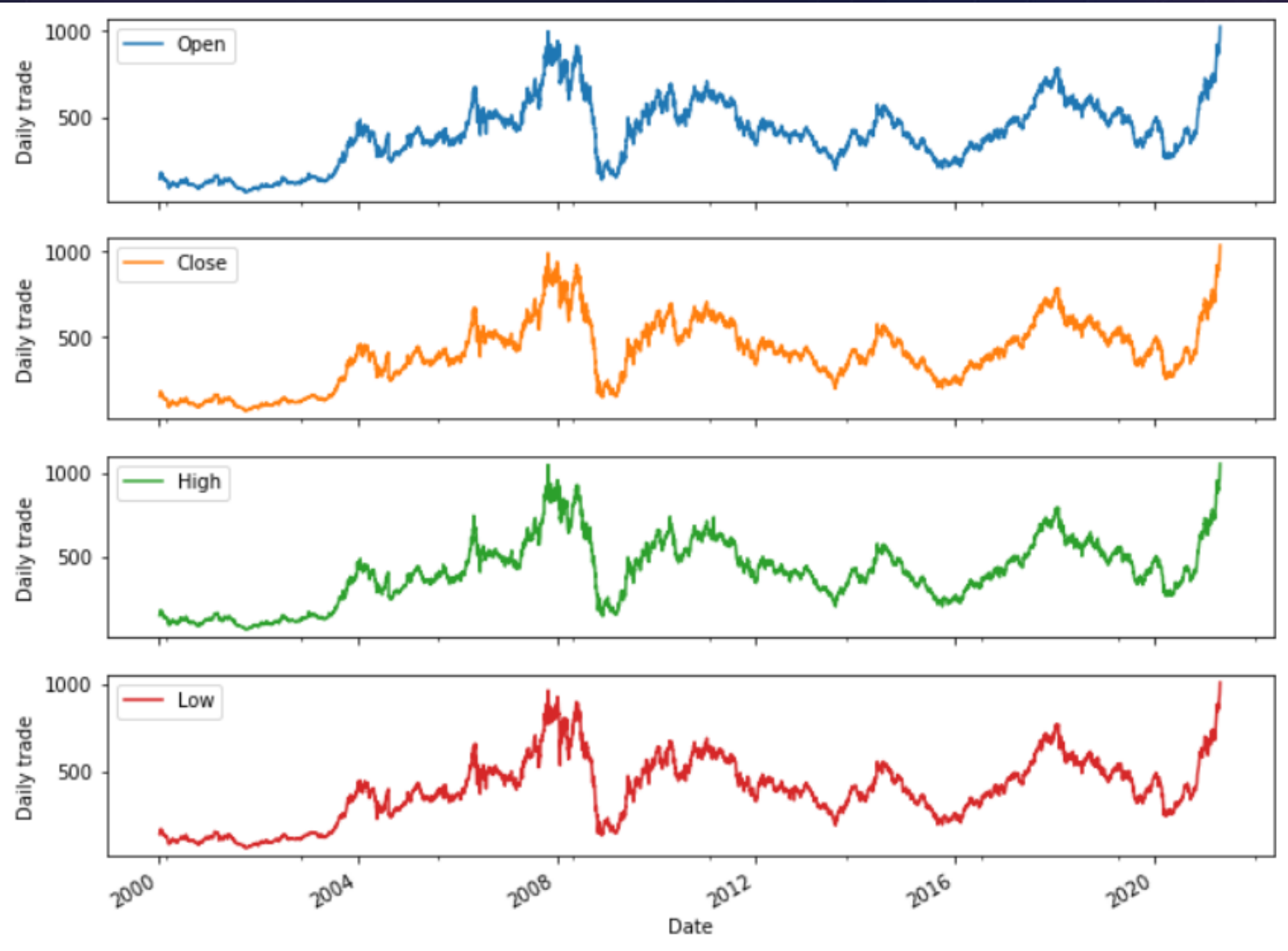


We can observe from 2004 to 2008 its is going on increasing and suddenly it falls in 2010. And after that also there are fluctuations in the stock.

# Stock Market

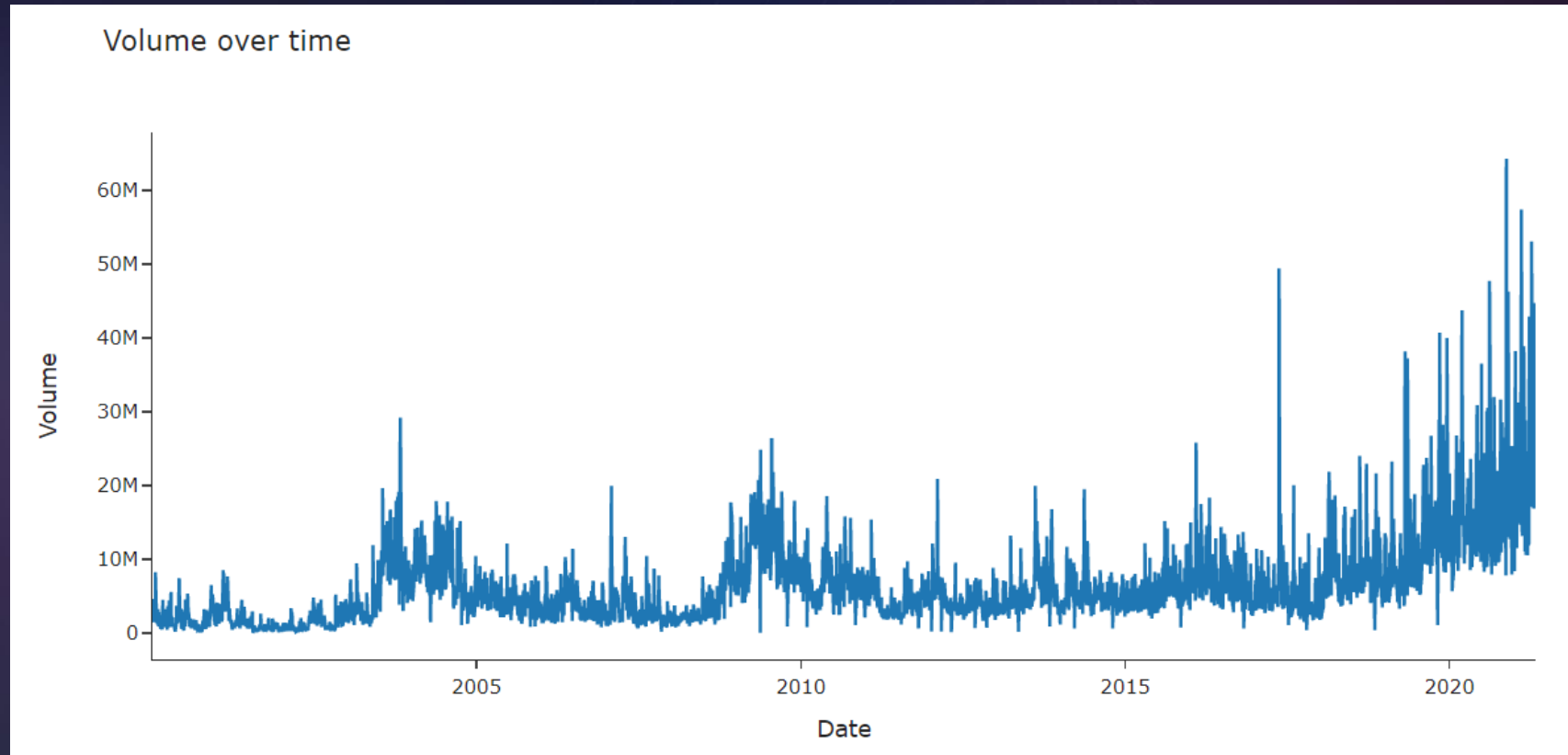
ANALYSIS

## TATA STEELS – OPEN, CLOSE, HIGH, LOW ANALYSIS



We can observe that for TCS all the aspects are same for years.

## TATA STEELS – Volume over Time



There are lots of up and down fluctuations in the Volume. The highest fluctuations is from 2015 to 2021.



## CONCLUSION

- We can say that IOC and Coal India are performing well as they are the best performers.
- Nestle India is the worst performer in the stock market.
- Among all TATA brands TCS is performing very well.
- There also many things and multiple factors which can be concluded after observing the dashboard.

**THANK YOU**