Introduction To Data management

(Project Semester August-December 2020)

Stock Market Analysis

Submitted by

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Registration No - 12001138

Programme and Section – KM007

Course Code – INT217

Under the Guidance of

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Faculty of CSE/IT

Lovely School of Computer science and engineering

Lovely Professional University, Phagwara

CERTIFICATE

This is to certify that Navin chandra bearing Registration no. 12001138 has completed INT217 Introduction to Data management project titled, **"Stock Market Analysis"** under my guidance and supervision. To the best of my knowledge, the present work is the result of his/her original development, effort and study.

Signature and Name of the Supervisor

School of Computer science and engineering

Lovely Professional University, Phagwara

Date: 11/12/2021

DECLARATION

I, Navin Chandra, student of Data Science under CSE/IT Discipline at, Lovely Professional University, Punjab, hereby declare that all the information furnished in this project report is based on my own intensive work and is genuine.

Date: 11/12/2021 Signature:

Registration No. 12001138 Navin Chandra

ACKNOWLEDGEMENT

I would like to express my gratitude towards my University for providing me the golden opportunity to do this wonderful Project on Stock Market Analysis , which also helped me in doing a lot of homework and learning. As a result, I came to know about so many new things. So, I am really thank full to them.

Moreover I would like to thank my Instructor who explained in such a way that, whenever I got stuck in some problem related to my course. I am really thankfull to have such a good Course.

Also,I would like to mention the support and consideration of my parents who have always been there in my life to make me choose right thing and oppose the wrong. Without them I could never had learned and became a person who I am now.

I have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals and organizations. I would like to extend my sincere thanks to all of them.

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Introduction

This project is on Stock market analysis project. Data of this project is taken from the website called Kaglge.com we have downloaded the Nifty-50 data of 50 companies and have chosen the top 5 companies to do analysis .

In this project we will analyse the stocks of few top companies from Nifty-50 using excel, pivot table, conditional formatting and using some formula and will also create the yearly stock chart of the companies using excel chart.

In stock market analysis project we can analyse the price, profit, up's and down's of the market that how the companies is preforming is in previous few years we, have taken data of companies from year 2000 to 2021 and and do analysis.

We have also created the stock charts for the companies to see the performance of the companies on charts

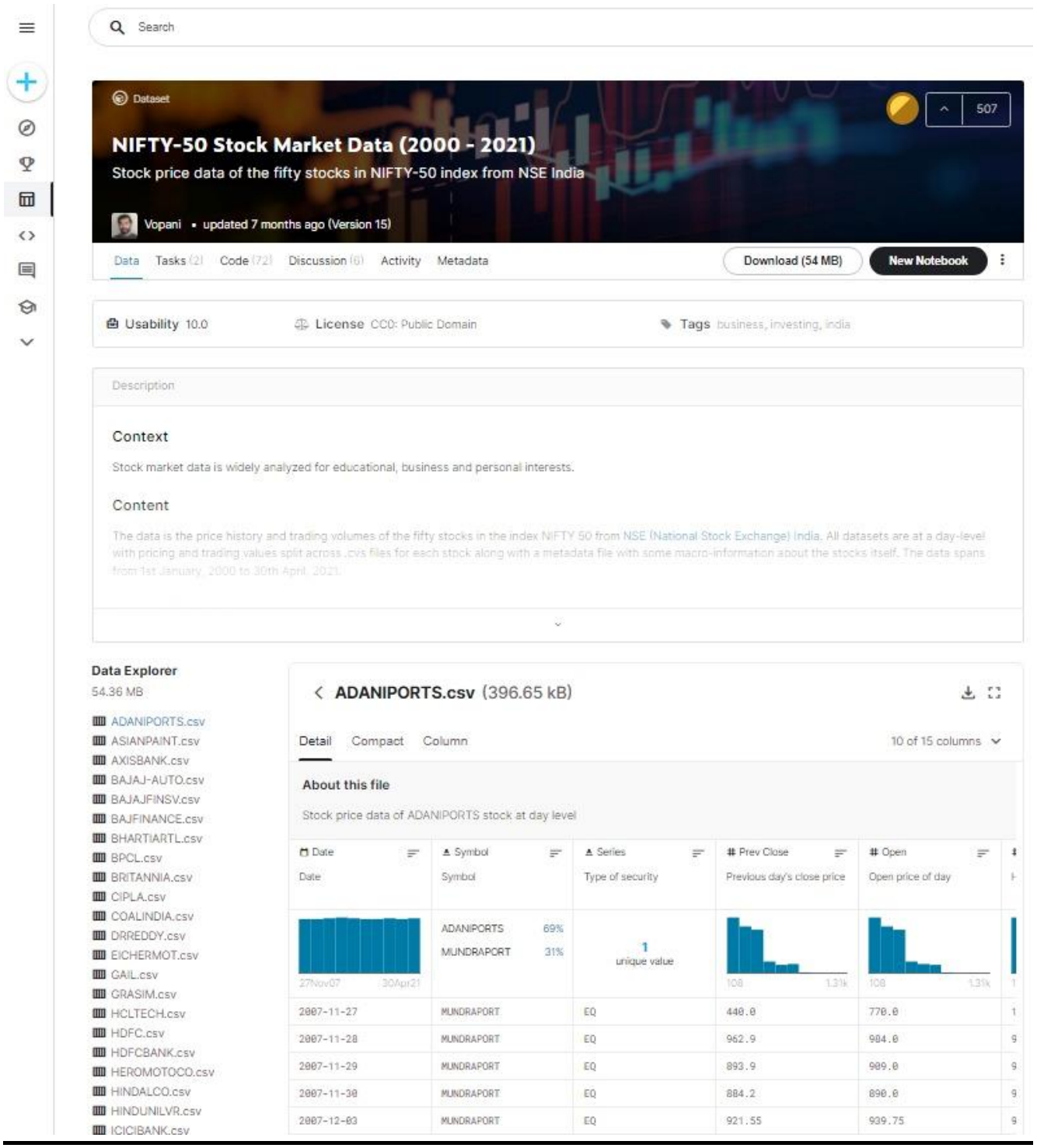
We have created a Dashboard for this project and also added links on the dashboard page through which we can navigate to any other page or objectives and also created a home page and objective page on objective there is information regarding the analysis we have done also by the links we can navigate to the analysis page.

Objectives/Scope of the Analysis

1. In which year ITC had given huge LOSS
2. Total profit given by ONGC Till now
3. Create a Stock chart of TATAMOTORS and show its highest price till Now
4. create Yearly Stock Chart of HINDUNILIVR using UP&DOWN bars
5. In which year HDFC had its highest closing price

Source of dataset

[NIFTY-50 Stock Market Data (2000 - 2021) | Kaggle]



Analysis on dataset 1

Introduction

The dataset 1 is of ITC company and we will analyse the data of ITC and try to find out in which year ITC had given huge loss

General Description

- We will analyse the data and see in which year ITC had given huge loss with the help of pivot table
- We will also crate a stock candle chart with the help of excel chart.

Specific Requirements, functions and formulas

To analyse the data of ITC we need create a pivot table and the need to select the date.

Then to create a stock candle chart we need data in particular format like – Row lable, open price, High price, Low price, Close price we will select the data in pivot table accordingly

We can easily get high and low price with the help of pivot table but to get open and low price we will apply a date filter like for open we need data of very first day of the year weather it is 1jan, 2jan, 3jan, 4jan, 5jan ....

and similar to this for close price we need data for very last day of the year weather it is …. 28dec, 29dec, 30dec, 31dec

then to get lowest price of the year we will use conditional formatting

I have also added the profit loss and percentage of by using the formula

Formula for profit/loss is **=IF(open price<close price,"Profit","Loss")**

Formula for percentage is **=(close price-open price)/close price**

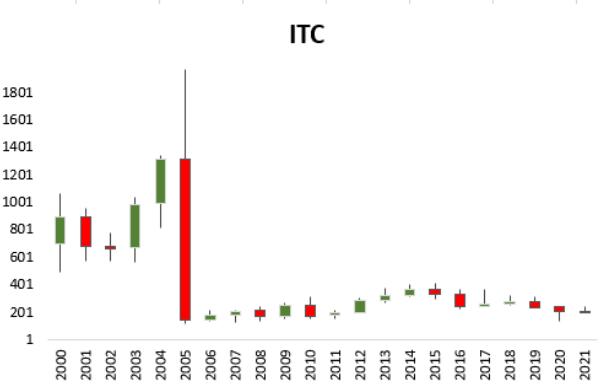
Analysis results

In figure I have shown the lowest return in year 2005 with the help of conditional formatting and also created the stock chart with the help of table.

DASHBOARD HOME OBJECTIVE

Row Labels	Max of High	Min of Low
2000	1067	489.8
2001	960	573.5
2002	782.65	572.25
2003	1039.4	560
2004	1339	812.1
2005	1964.8	114.4
2006	212.5	132
2007	214.7	130
2008	239.4	132.05
2009	271	156
2010	313.45	151.55
2011	216.2	149
2012	306.5	197
2013	380	272.1
2014	400.3	310.35
2015	409.95	294
2016	371.7	222
2017	367.7	238.6
2018	322.95	252.5
2019	310	234.05
2020	243.9	134.6
2021	239.2	200.25
Grand Total	1964.8	114.4

Years	Open	High	Low	Close	Profit/Loss	%
2000	694	1067	489.8	896.1	Profit	22.55%
2001	899	960	573.5	677.6	Loss	-32.67%
2002	678	782.65	572.25	660.9	Loss	-2.59%
2003	667	1039.4	560	983.5	Profit	32.18%
2004	990	1339	812.1	1310.75	Profit	24.47%
2005	1318.95	1964.8	114.4	142.1	Loss	-828.18%
2006	142	212.5	132	176.1	Profit	19.36%
2007	176.5	214.7	130	209.45	Profit	15.73%
2008	212	239.4	132.05	171.7	Loss	-23.47%
2009	172.3	271	156	250.8	Profit	31.30%
2010	253	313.45	151.55	174.65	Loss	-44.86%
2011	175.95	216.2	149	201.3	Profit	12.59%
2012	201.85	306.5	197	286.8	Profit	29.62%
2013	287.35	380	272.1	321.85	Profit	10.72%
2014	322.3	400.3	310.35	368.7	Profit	12.58%
2015	367.6	409.95	294	327.8	Loss	-12.14%
2016	327.6	371.7	222	241.65	Loss	-35.57%
2017	242	367.7	238.6	263.25	Profit	8.07%
2018	263.25	322.95	252.5	281.65	Profit	6.53%
2019	282.2	310	234.05	237.7	Loss	-18.72%
2020	238.6	243.9	134.6	205.4	Loss	-16.16%
2021	209.9	239.2	200.25	202.6	Loss	-3.60%
					Total=	-792.25%



Analysis on dataset 2

Introduction

The dataset 2 is of ONGC company and we will analyse the data of ONGC and try to find out total profit given by ONGC till now.

General Description

- We will analyse the data and see the total pprofit given by ongc with the help of pivot table and using foumula
- We will also crate a stock candle chart with the help of excel chart.

Specific Requirements, functions and formulas

To analyse the data of ONGC we need create a pivot table and the need to select the date.
Then to create a stock candle chart we need data in particular format like – Row lable, open price, High price, Low price, Close price we will select the data in pivot table accordingly
We can easily get high and low price with the help of pivot table but to get open and low price we will apply a date filter like for open we need data of very first day of the year weather it is 1jan, 2jan, 3jan, 4jan, 5jan ....
and similar to this for close price we need data for very last day of the year weather it is …. 28dec, 29dec, 30dec, 31dec
then to get total profit we will use forurmula
Formula for percentage is **=(close price-open price)/close price**
For we will calculate percentage of each year and then will add it to get total profit
Formula for profit/loss is **=IF(open price<close price,"Profit","Loss")**

Analysis results

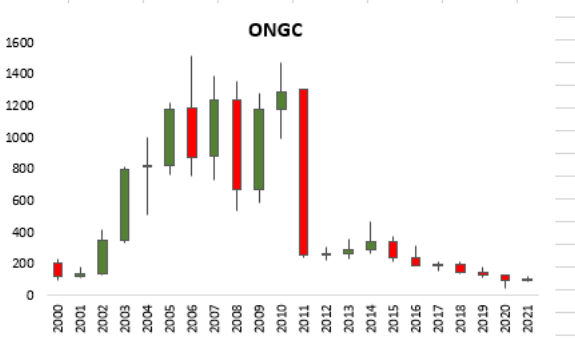
In figure I have shown the total profit given by ONGC and also created the stock chart with the help of table.

DASHBOARD HOME OBJECTIVE

Row Labels	Max of High	Min of Low
2000	234.9	95.1
2001	184	115.25
2002	415.9	133
2003	812.9	333
2004	1000	510
2005	1219.95	762.25
2006	1513.9	755.35
2007	1385.05	726.5
2008	1356	538.15
2009	1277.65	587.8
2010	1472.6	996
2011	1304	241.75
2012	304.25	227.4
2013	355	234.2
2014	471.85	264.15
2015	373.8	211.25
2016	314.6	187.7
2017	211.8	155.2
2018	212.85	134.75
2019	178.9	115.55
2020	133.4	50
2021	122.35	87.75
Grand Total	1513.9	50

Year	Open	High	Low	Close	Profit/Loss	%
2000	205	234.9	95.1	119.85	Loss	-71%
2001	122.5	184	115.25	135.9	Profit	10%
2002	136.2	415.9	133	350.25	Profit	61%
2003	351.45	812.9	333	798.25	Profit	56%
2004	815	1000	510	819.95	Profit	1%
2005	825	1219.95	762.25	1174.25	Profit	30%
2006	1183	1513.9	755.35	871.3	Loss	-36%
2007	880	1385.05	726.5	1236.95	Profit	29%
2008	1240	1356	538.15	667.1	Loss	-86%
2009	667	1277.65	587.8	1178	Profit	43%
2010	1177	1472.6	996	1288.2	Profit	9%
2011	1304	1304	241.75	256.6	Loss	-408%
2012	257.5	304.25	227.4	268	Profit	4%
2013	269.1	355	234.2	288.9	Profit	7%
2014	290	471.85	264.15	341.35	Profit	15%
2015	340.25	373.8	211.25	241.75	Loss	-41%
2016	239.9	314.6	187.7	191.35	Loss	-25%
2017	191.8	211.8	155.2	195.2	Profit	2%
2018	195.2	212.85	134.75	149.9	Loss	-30%
2019	150	178.9	115.55	128.8	Loss	-16%
2020	128.75	133.4	50	93.05	Loss	-38%
2021	93.75	122.35	87.75	108.15	Profit	13%

Total= -473%



Analysis on dataset 3

Introduction

The dataset 3 is of TATAMOTORS company and we will analyse the data of TATAMOTORS and try to find out its highest price till now and also create a stock chart.

General Description

- We will analyse the data and see its highest price till now with the help of pivot table and conditional formatting
- We will also create a stock candle chart with the help of excel chart.

Specific Requirements, functions and formulas

To analyse the data of TATAMOTORS we need create a pivot table and the need to select the date.

Then to create a stock candle chart we need data in particular format like – Row lable, open price, High price, Low price, Close price we will select the data in pivot table accordingly

We can easily get high and low price with the help of pivot table but to get open and low price we will apply a date filter like for open we need data of very first day of the year weather it is 1jan, 2jan, 3jan, 4jan, 5jan ....

and similar to this for close price we need data for very last day of the year weather it is …. 28dec, 29dec, 30dec, 31dec

then to get highest price till now we will use conditional formatting

I have also added the profit loss and percentage of by using the formula

Formula for profit/loss is **=IF(open price<close price,"Profit","Loss")**

Formula for percentage is **=(close price-open price)/close price**

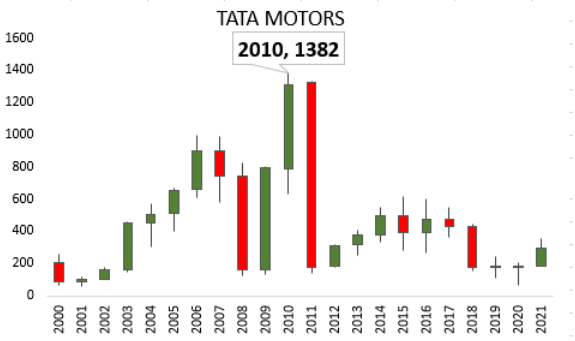
Analysis results

In figure I have shown the highest price till now with the help of conditional formatting and also created the stock chart with the help of table and excel chart

DASHBOARD HOME OBJECTIVE

Row Labels	Max of High	Min of Low
2000	260	67.25
2001	114.35	57.55
2002	173.4	98.05
2003	459.3	147.6
2004	570.3	300
2005	665.5	400.1
2006	997.8	608.3
2007	988.4	575
2008	824.1	124.8
2009	799.6	128
2010	1382	633.75
2011	1335	137.55
2012	320.75	178.8
2013	405.05	251.8
2014	550.7	332.1
2015	612.4	279.1
2016	598.4	265.8
2017	552	358.5
2018	443.5	154.65
2019	239.35	106
2020	201.7	63.5
2021	357	184.5
Grand Total	1382	57.55

Row Labels	Open	High	Low	Close	Profit/Loss	%
2000	207.4	260	67.25	88.1	Loss	-135%
2001	88.45	114.35	57.55	99.85	Profit	11%
2002	103	173.4	98.05	161.4	Profit	36%
2003	160	459.3	147.6	452.05	Profit	65%
2004	453.25	570.3	300	505.25	Profit	10%
2005	509.9	665.5	400.1	653.4	Profit	22%
2006	657.05	997.8	608.3	900.6	Profit	27%
2007	902.1	988.4	575	741.9	Loss	-22%
2008	742	824.1	124.8	159.85	Loss	-364%
2009	160.95	799.6	128	791.55	Profit	80%
2010	789.9	#####	633.75	1308.35	Profit	40%
2011	1327.7	1335	137.55	178.7	Loss	-643%
2012	180.95	320.75	178.8	312.65	Profit	42%
2013	316	405.05	251.8	376.4	Profit	16%
2014	377.55	550.7	332.1	495.55	Profit	24%
2015	494.5	612.4	279.1	391.3	Loss	-26%
2016	392.5	598.4	265.8	472	Profit	17%
2017	472	552	358.5	431.85	Loss	-9%
2018	430.95	443.5	154.65	172.7	Loss	-150%
2019	173.5	239.35	106	185.15	Profit	6%
2020	185.15	201.7	63.5	183.85	Loss	-1%
2021	184.95	357	184.5	293.85	Profit	37%
				Total=		-917%



Analysis on dataset 4

Introduction

The dataset 4 is of HINDUNILIVR company and we will analyse the data of HINDUNILIVR and will create a yearly stock chart using up&down bars

General Description

- We will analyse the data and create a stock chart using up&down bars with the help of pivot table

Specific Requirements, functions and formulas

To analyse the data of HINDUNILIVR we need create a pivot table and the need to select the date.

Then to create a stock candle chart we need data in particular format like – Row lable, open price, High price, Low price, Close price we will select the data in pivot table accordingly

We can easily get high and low price with the help of pivot table but to get open and low price we will apply a date filter like for open we need data of very first day of the year weather it is 1jan, 2jan, 3jan, 4jan, 5jan ....

and similar to this for close price we need data for very last day of the year weather it is …. 28dec, 29dec, 30dec, 31dec

I have also added the profit loss and percentage of by using the formula

Formula for profit/loss is **=IF(open price<close price,"Profit","Loss")**

Formula for percentage is **=(close price-open price)/close price**

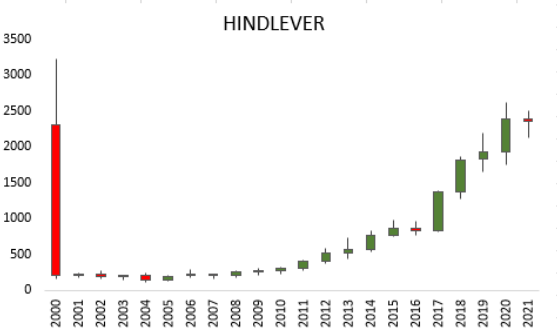
Analysis results

In figure I have shown the stock chart with up& down bars with the help of table and excel chart .

DASHBOARD HOME OBJECTIVE

Row Labels	Max of High	Min of Low
2000	3234	163
2001	239.15	176.5
2002	266	152.15
2003	210.95	135.15
2004	245.3	100.5
2005	200.8	125.5
2006	296	180
2007	229.9	165.05
2008	267.8	169
2009	306.7	210.85
2010	320.85	218
2011	420.25	264.45
2012	580.45	374.35
2013	725	432.15
2014	829.75	537.2
2015	981	752.65
2016	954	766.4
2017	1382.8	816.55
2018	1869.5	1281.1
2019	2190	1650
2020	2614.3	1757.3
2021	2505.9	2120
Grand Total	3234	100.5

Year	Open	High	Low	Close	Profit/Lo	
2000	2300	3234	163	206.55	Loss	-1014%
2001	207.9	239.15	176.5	222.95	Profit	7%
2002	220	266	152.15	181.7	Loss	-21%
2003	182	210.95	135.15	204.45	Profit	11%
2004	205.9	245.3	100.5	143.4	Loss	-44%
2005	145	200.8	125.5	197.2	Profit	26%
2006	199.5	296	180	216.4	Profit	8%
2007	217.8	229.9	165.05	213.7	Loss	-2%
2008	213.25	267.8	169	250.3	Profit	15%
2009	251	306.7	210.85	264.8	Profit	5%
2010	264.8	320.85	218	312.9	Profit	15%
2011	310.05	420.25	264.45	407.4	Profit	24%
2012	408.15	580.45	374.35	524.85	Profit	22%
2013	525.55	725	432.15	570.65	Profit	8%
2014	570.65	829.75	537.2	760.1	Profit	25%
2015	759.3	981	752.65	862.75	Profit	12%
2016	860	954	766.4	826.35	Loss	-4%
2017	828	1382.8	816.55	1367.85	Profit	39%
2018	1367	1869.5	1281.1	1819.65	Profit	25%
2019	1824.8	2190	1650	1923	Profit	5%
2020	1930	2614.3	1757.3	2395.4	Profit	19%
2021	2395.4	2505.9	2120	2353.75	Loss	-2%
					Total=	-819%



Analysis on dataset 5

Introduction

The dataset 5 is of HDFC company and we will analyse the data of HDFC and try to find out in which year HDFC had its highest closing price.

General Description

- We will analyse the data and see in which year HDFC had its highest closing price with the help of pivot table
- We will also crate a stock candle chart with the help of excel chart.

Specific Requirements, functions and formulas

To analyse the data of HDFC we need create a pivot table and the need to select the date.
Then to create a stock candle chart we need data in particular format like – Row lable, open price, High price, Low price, Close price we will select the data in pivot table accordingly
We can easily get high and low price with the help of pivot table but to get open and low price we will apply a date filter like for open we need data of very first day of the year weather it is 1jan, 2jan, 3jan, 4jan, 5jan ....
and similar to this for close price we need data for very last day of the year weather it is …. 28dec, 29dec, 30dec, 31dec
Then to get highest closing price we have used conditional formatting
I have also added the profit loss and percentage of by using the formula
Formula for profit/loss is **=IF(open price<close price,"Profit","Loss")**
Formula for percentage is **=(close price-open price)/close price**

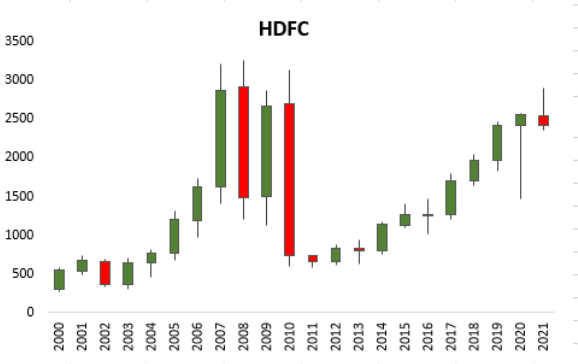
Analysis results

In figure I have shown the highest closing price with the help of conditional formatting and also created the stock chart with the help of table.

DASHBOARD HOME OBJECTIVE

Row Labels	Max of High	Min of Low
2000	582.25	273.25
2001	728.05	493.1
2002	695	338.05
2003	700	293.2
2004	807.9	450
2005	1309.95	677.1
2006	1737.4	962
2007	3215	1400
2008	3262	1200
2009	2865.7	1119
2010	3145	595.25
2011	738.8	582.3
2012	882.3	610.5
2013	931.4	632.2
2014	1177.8	755
2015	1402.3	1093.2
2016	1464	1011.45
2017	1804	1197.25
2018	2052.95	1644.5
2019	2459.3	1820
2020	2575	1473.45
2021	2896	2364.6
Grand Total	3262	273.25

Row Labels	Open	High	Low	Close	Profit/Loss	%
2000	293.5	582.25	273.25	541.8	Profit	46%
2001	538.1	728.05	493.1	666.1	Profit	19%
2002	665.05	695	338.05	358.35	Loss	-86%
2003	358.5	700	293.2	645.55	Profit	44%
2004	645.9	807.9	450	769.05	Profit	16%
2005	771	1309.95	677.1	1207	Profit	36%
2006	1195	1737.4	962	1626.9	Profit	27%
2007	1630	3215	1400	#####	Profit	43%
2008	2912	3262	1200	1486.4	Loss	-96%
2009	1500	2865.7	1119	2675.8	Profit	44%
2010	2694.8	3145	595.25	728.35	Loss	-270%
2011	737.9	738.8	582.3	652.05	Loss	-13%
2012	650	882.3	610.5	828.85	Profit	22%
2013	834.65	931.4	632.2	794.65	Loss	-5%
2014	798.25	1177.8	755	1135.9	Profit	30%
2015	1130	1402.3	1093.2	1263.75	Profit	11%
2016	1261	1464	1011.45	1262.6	Profit	0%
2017	1272	1804	1197.25	1710.4	Profit	26%
2018	1710	2052.95	1644.5	1968.35	Profit	13%
2019	1968	2459.3	1820	2412.55	Profit	18%
2020	2418	2575	1473.45	2558.65	Profit	5%
2021	2549	2896	2364.6	2420.1	Loss	-5%
				Total=		-75%



References

Kaggle

Youtube

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Books