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|  | | STOCK MARKET ANALYSIS | | | | |  | |
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|  | | | | **Course title**Data Analysis |  | | | |
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|  | Aim of Project | | | | | | |  |
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|  |  |  | In this project we are going to see how to analyze stock market prices using python pandas.  In particular we will be studying the stock prices of TESLA, FORD and GM from 2012 to 2017.  We will be seeing how to read the data using proper functions and how to analyze the stock prices that we have.  What it means to see spikes and volume traded. And how to interpret it in-terms of stock prices.  We will also be seeing about the total traded amounts and why it is important to look at traded prices rather than stock prices.  We will use scatter plot to compare the stocks between the 3 different companies.  Daily percentage change and why it is important and most importantly what it means to be a volatile or stable stock price (why it is imp for an investor, depending whether the investment is on short or long term. | | |  |  |  |
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ADVANTAGES OF THE PROJECT

* Stock market analysis is used to gain knowledge of the equity market to arrive at true value of a stock. It involves fundamental and technical research as its main tool.
* It allows the investors or online traders to peek into the reasons behind a certain market trend, prising, and understand price behaviour, which was otherwise impossible to know just a few years back.
* Access to big data helps mitigate possible risks in online trading and enables the investor to make precise decisions.
* Technical research relates to the study of past stock prices to predict the trend of prices in future. It shows us the direction of movement of the share prices.
* With the help of technical research, we can identify whether there will be sharp rise or fall in the price of share. It Is not dependent on recent news or events which can already been incorporated in the price of the share.
* From large financial institutions to small scale investors, everyone is leveraging the latest trends in data analytics to bring about a positive impact on their investments.
* Humans have the ability to create content and analyze data, and machines on the other hand, have the ability to process data within the fraction of a second.
* Data Analysis and Big Data are on the verge of completely revolutionizing how the stock market functions.

SUMMARY & CONCLUSION

Here we did a Stock Market Analysis on stock prices of TESLA, FORD and GM (General Motors). We took a look at information like high, low and close prices as well as plotting them and plotting the volume traded per company.

We computed the total traded based on the opening price and volume created. We also saw why there was a SPIKE in TESLA’s company between 2014 and 2o15 in the total traded.

We introduced the notion of moving average and why its useful when it comes to stock prices.

The importance of scatter plot was seen on studying opening prices and trading prices, to know whether there was any relation or correlation between any metric whether its opening price, closing price, return values.

The importance of Candlestick plot was seen along with what a Daily Percentage Change is, daily returns per company.What a Volatile VS Stable return is and how to interpret it via histograms or kernel density estimates (KDE).

We also got introduced to the notion of Cumulative Returns and why it is useful. Cumulative Returns always answers a very crucial question in stock analysis namely, if we invest 1$ in this company in the first day, how much would it return today. In our particular case it would have returned to 8$ if we invested in TESLA, whereas it would have returned almost the same when investing with FORD or GM.