**Stock Price Prediction**

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**Introduction:**

**In this notebook I will show you how to write a python program that predicts the price of stocks using a machine learning technique called Long Short-Term Memory (LSTM).**

**This program is really simple and I doubt any major profit will be made from this program, but it’s slightly better than guessing! Remember the stock price can be affected by many different things.**

**Importing libraries:**

**Pandas – This library helps to load the data frame in a 2D array format and has multiple functions to perform analysis tasks in one go. Numpy – Numpy arrays are very fast and can perform large computations in a very short time. Matplotlib/Seaborn – This library is used to draw visualizations.**

**Python libraries make it very easy for us to handle the data and perform typical and complex tasks with a single line of code.**

**Reading Datasets:**

**Now that we've seen the visualizations for the closing price and the volume traded each day, let's go ahead and caculate the moving average for the stock.**

**From the first five rows, we can see that data for some of the dates is missing the reason for that is on weekends and holidays Stock Market remains closed hence no trading happens on these days.**

# **Building Models:**

**Create a new data frame with only the closing price and convert it to an array. Then create a variable to store the length of the training data set. I want the training data set to contain about 80% of the data.**

**Now scale the data set to be values between 0 and 1 inclusive, I do this because it is generally good practice to scale your data before giving it to the neural network.**

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# **Conclusion:**

**Thanks for reading. I hope you like my analysing and visualization and found it to be helpful. If you have any questions or suggestions, feel free to write them down in the comment section**