**Stock Market Prediction**

**Models:**

* Multiple Regression
* Decision tree
* ADA boost
* XG boost
* Random forest

**DATASET:**

y - finance (yahoo-API for stock market data)

**Predicted Accuracy:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Models | MSE | RMSE | MAE | R2 |
| Multiple Regression | 0.289 | 0.538 | 0.428 | 0.99 |
| Decision tree | 1.380 | 1.175 | 0.914 | 0.97 |
| ADA boost | 130.53 | 11.42 | 10.381 | 0.89 |
| XG boost | 152.18 | 12.33 | 11.851 | 0.74 |
| Random forest | 0.449 | 0.670 | 0.401 | 0.99 |

**Inference:**

By taking this data, I learnt that the prices of the stock may vary daily. It may affect due to many factors such as company, NEWS, world securities and so on. I used 5 supervised learning models to predict the values. The Accuracy values for the models are mentioned above. Predicting the stock price whether the predicted price is higher or lower than the actual price may be useful in times. Which model has predicted more accuracy had been displayed in the bar chart diagram below. Stock Price Prediction using machine learning helps you discover the future value of company stock and other financial assets traded on an exchange. The entire idea of predicting stock prices is to gain significant profits.

