Google Stock Price Prediction Analysis

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Problem Statement

In this section I am going to shed a light on main issues to get the better understanding of Stock Market functioning. And how we can predict stock market price. We will understand when to buy and sell shares to gain profit and reduce the loss

Business Values

Here we will touch some most crucial aspects to grow in this industry.
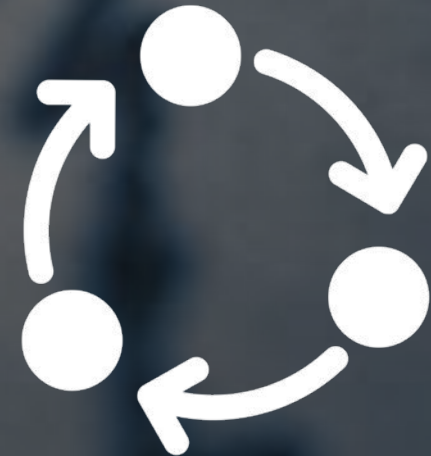
Some major aspects to understand.

➢ Relationship of Sentiments and Prices
➢ Most Important is sentiment of the audience.
➢ We will touch the surface of other important aspects

Methodology

Models used in project .

- ➢ Data Cleaning
- ➢ Feature Engineering
- ➢ Linear Regression
- ➢ K Nearest Neighbour
- ➢ ARIMA Model
- ➢ LSTM
- ➢ BiLSTM

LSTM with RNN

Finding of this model.

As we can see in given graph where Real Price(Red) is totally different Predicted Price (Blue) one. So the accuracy is very low

Model Accuracy	65.7

RNN with Bidirectional (BiLSTM)

Finding of this model.

As we can see in given graph where Real Price(Green) is very close to Predicted Price (Red) one. So the accuracy is very High

Model Accuracy	98.73

ARIMA Model

Finding of this model.

As we can see in given graph where predicted price is constant and straight

Model p-value	7.002380e-12

Linear Regression

Finding of this model.

As we can see in given graph where forecasted price(Green) and actual price is (Blue)

Model Accuracy	94%

Decision Regression

Finding of this model.

Model Accuracy	91%

K-Nearest Regressor

Finding of this model.

This model has lowest accuracy of forecasting

Model Accuracy	94%

Conclusion

In above slides we can clearly observe outcomes and accuracy of each model in forecasting stock prices. We have learned among all the models RNN with BiLSTM showed best results.

Future Work

Future Work.

- ✓ Algorithmic Trading: - Will be able to understand when to buy and when to sell the shares
- ✓ Automated Prices: Automate the stock price per day