

Contributor Roles

1. Ranjit Biswal:

1. Load Datasets:
 - I) Yes, bank stock prices dataset.
2. Exploratory data analysis.
3. Visualization of dataset
4. Plot histogram of dependent variable.
5. Correlation metrics.
6. Pre-processing of the data
7. Feature engineering of date column.
8. ML Model Building.
9. Hyperparameter tuning.
10. Summary of all models.
11. Conclusion.

2. Abhishek Kumar:

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1. Suvendu Dey:

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Project Link

GitHub Link: https://github.com/devsuvendu/Yes_Bank_Closing_Price_Prediction

Drive Link: - https://drive.google.com/drive/folders/1mz_batcEvSZup7JcSKWZ8PUkqomMbzpQ?usp=sharing

LinkedIn: <https://www.linkedin.com/in/suvendu-dey-027bb5246>

Summary

1. The dataset of YES BANK has monthly stock prices of the bank since its inception and includes closing, starting, highest, and lowest stock prices of every month of around 180 observations. It contains the following features:

- Date: It denotes date of investment done (in our case we have month and year).
- Open: Open means the price at which a stock started trading when the opening bell rang.
- High: High refer to the maximum prices in a given time period.
- Low: Low refer to the minimum prices in a given time period.
- Close: Close refers to the price of an individual stock when the stock exchange closed for the day.
- YES BANK's stock price is showing signs of upper trend yearly.
- YES BANK's stock price shows upper trend signs during February and in December month it tends to give low stock prices.
- YES BANK's stock price is showing signs of upper trend during the end of the month. **Cross Validation for time series:**

Prophet includes functionality for time series cross validation to measure forecast error using historical data. This is done by selecting cut-off points in the history, and for each of them fitting the model using data only up to that cut-off point. We can then compare the forecasted values to the actual values.

- There is an increase in trend of Yes Bank stock price till 2018 and then a sudden decrease.
- Using a regression approach, we get the best performing model as Linear Regression model with accuracy of 99.60% which is excellent.
- On the other hand, using the time series approach for the FBprophet forecast the error of 3% is typical for predictions one month into the future, and that errors increase up to around 18-19% for predictions that are a year out.
- Fbprophet is the best performing time series model in terms of accuracy.
- February is the month where there are more upward trends for the stock.
- July also shows the upward trend but not as much as February.
- November and December are months with the most downward pressure.