

# Capstone Project Submission

## Instructions:

- i) Please fill in all the required information.
- ii) Avoid grammatical errors.

## Team Member's Name, Email and Contribution:

### **1) Mohd Danish:**

**Email:** [mdanish63364@gmail.com](mailto:mdanish63364@gmail.com)

#### 1) Feature Engineering:

- Introduced new features
- Introducing Dummy Variables

#### 2) Data Visualization:

- Trend of Close price
- Distribution of Close price
- Heatmap

#### 3) VIF

#### 4) Regression Analysis:

- Linear Regression
- Lasso
- Ridge
- ElasticNet

#### 5) Group Colab

### **2) Abdul Rahman Talha:**

**Email:** [rahman88talha@gmail.com](mailto:rahman88talha@gmail.com)

#### 1) Correlation Analysis

- Between Independent Variables
- Between Dependent and Independent Variables

#### 2) Data Visualization:

- JointPlot
- Distplot

#### 3) Regression Analysis:

- Linear Regression
- Lasso
- Ridge

#### 4) PPT

### **3) Huzaifa Khan:**

**Email:** [huzafakhan2974@gmail.com](mailto:huzafakhan2974@gmail.com)

- 1) Data Munging:
  - Introducing New variables
  - Settling DateTime
- 2) Data Visualization:
  - Distplot
  - Boxplot
  - Scatter Plot
- 3) Regression Analysis:
  - Linear Regression
  - Lasso
  - Ridge
  - ElasticNet

**4) Arbaz Malik:**

**Email:** [malikarbaaz267@gmail.com](mailto:malikarbaaz267@gmail.com)

- 1) Data Munging:
  - Feature Engineering
- 2) Data Visualization
  - Barplot
  - Scatter-Plot
- 3) Regression Analysis
  - Linear Regression
  - Lasso
  - Ridge
  - ElasticNet

**Please paste the GitHub Repo link.**

Github Link:- <https://github.com/Hkhero79/Hk-yes-bank-stock-closing-price-prediction>

**Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches and your conclusions. (200-400 words)**

Yes Bank is a well-known bank in the Indian financial domain. Since 2018, it has been in the news because of the fraud case involving Rana Kapoor. Owing to this fact, it was interesting to see how that impacted the stock prices of the company and whether Time series models or any other predictive models can do justice to such situations.

This dataset has monthly stock prices of the bank since its inception and includes closing, starting, highest, and lowest stock prices of every month. The main objective is to predict the stock's closing price of the month.

**Conclusion:**

independent variable are highly correlated

The target variable is highly dependent on input variables.

we have perform VIF to reduce multicollinearity

Linear regression gives result with the accuracy of 80%

lasso and ridge regression give accuracy of 80%

Elasticnet regression give accuracy of 80%