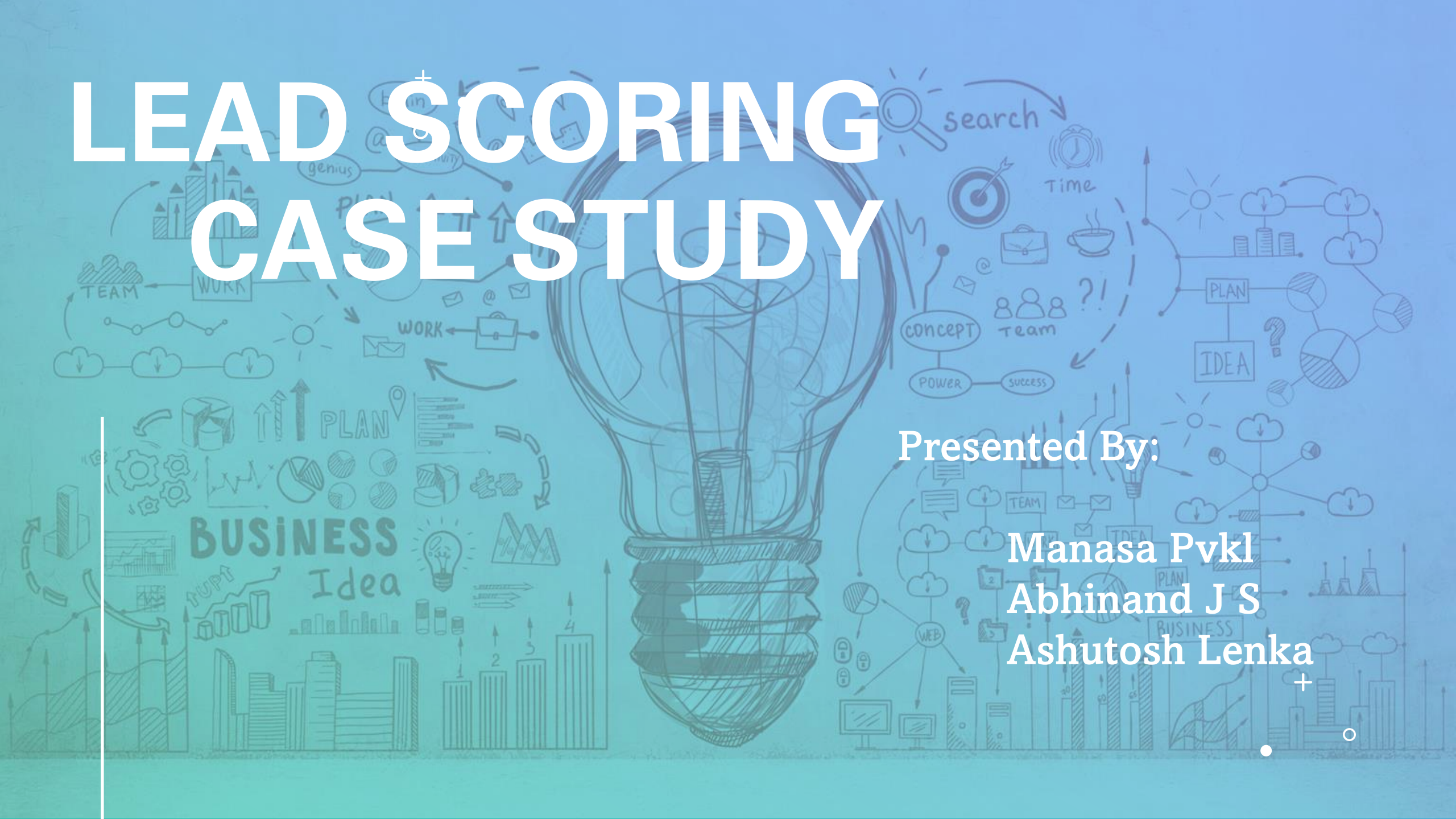
LEAD SCORING CASE STUDY



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Problem Statement

- An education company named X Education sells online courses to industry professionals. On any given day, many professionals who are interested in the courses land on their website and browse for courses.

- Through this process, some of the leads get converted while most do not. The typical lead conversion rate at X education is around 30%.

- X Education has appointed you to help them select the most promising leads, i.e. the leads that are most likely to convert into paying customers.

Business Goal

- The company requires you to build a model wherein you need to assign a lead score to each of the leads such that the customers with a higher lead score have a higher conversion chance and the customers with a lower lead score have a lower conversion chance.

- The CEO, in particular, has given a ballpark of the target lead conversion rate to be around 80%.

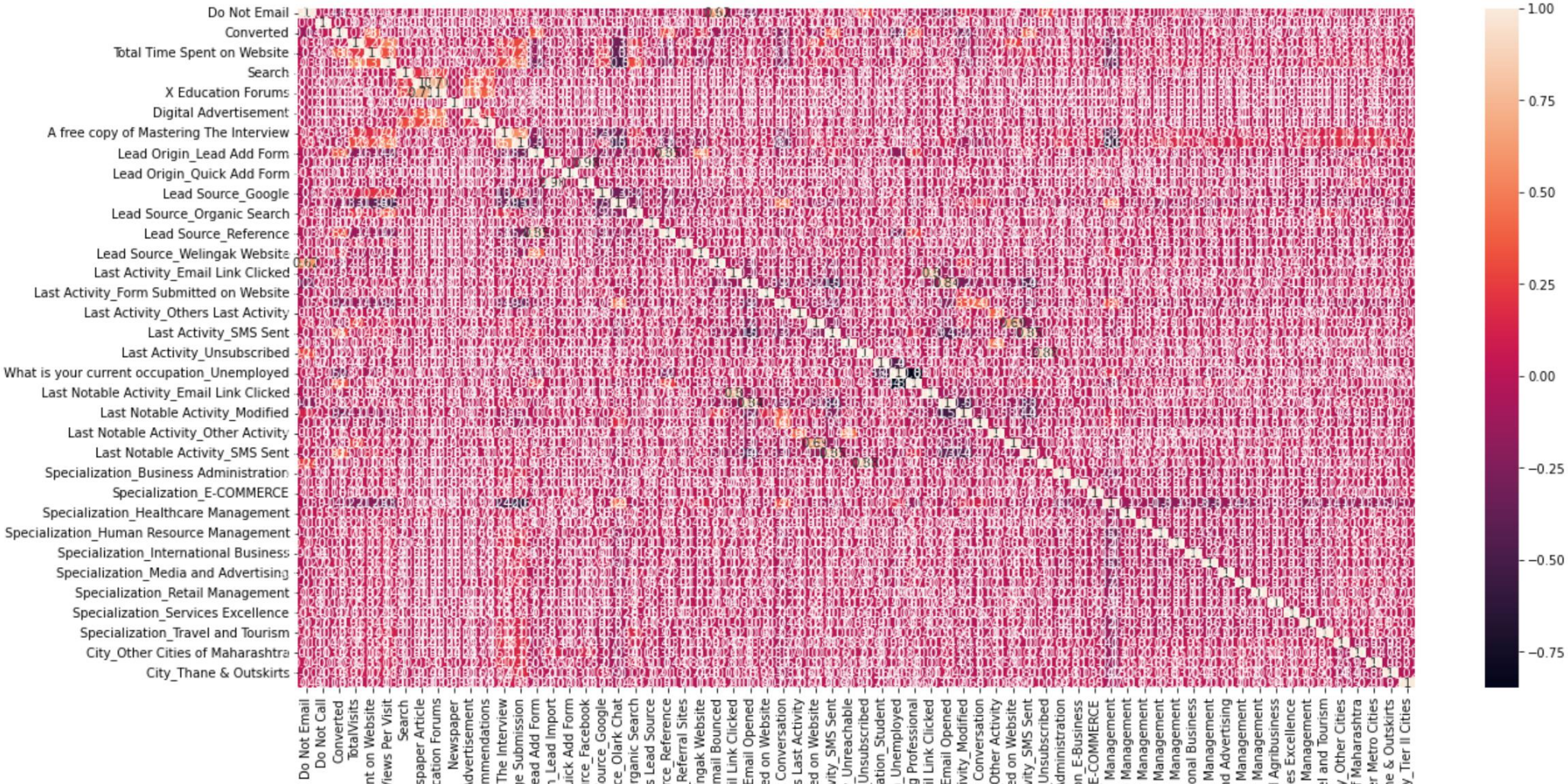
Strategy

- Import dataset
- Data Cleaning
- Exploratory Data Analysis
- Scaling Features
- Prepare the data for model building
- Logistic Regression Model
- Assign a lead score for each leads
- Train and test Model
- Evaluate the model
- Test the Model in test set
- Measure the accuracy of the model

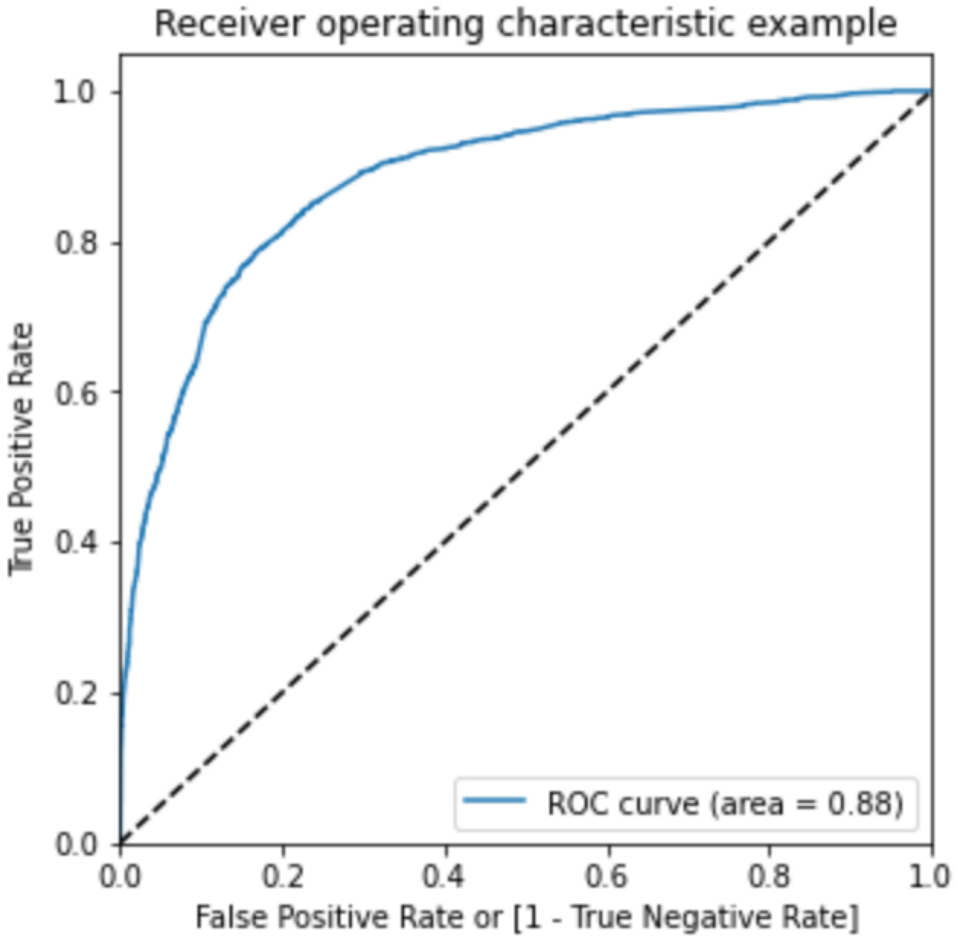
Correlation

- Total Visits
- Converted
- Total time spent on website

Heat Map to check for correlation

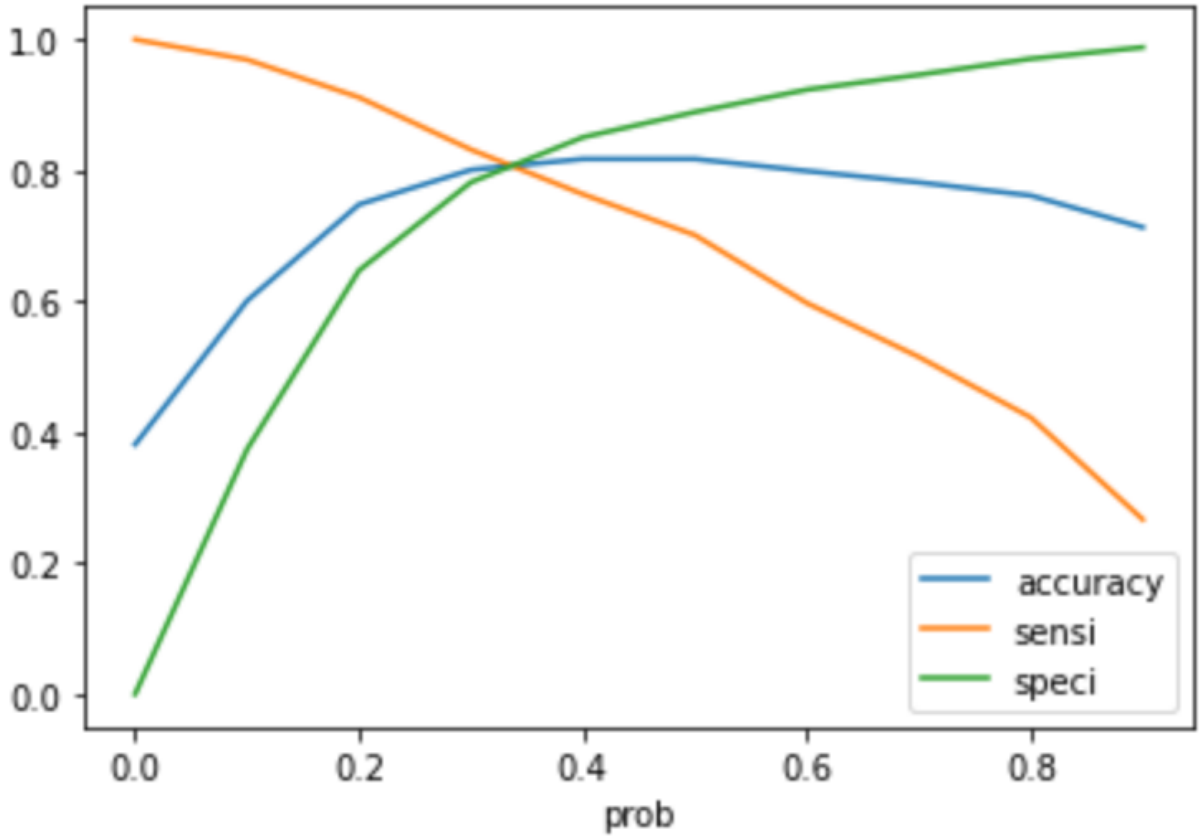


ROC Curve



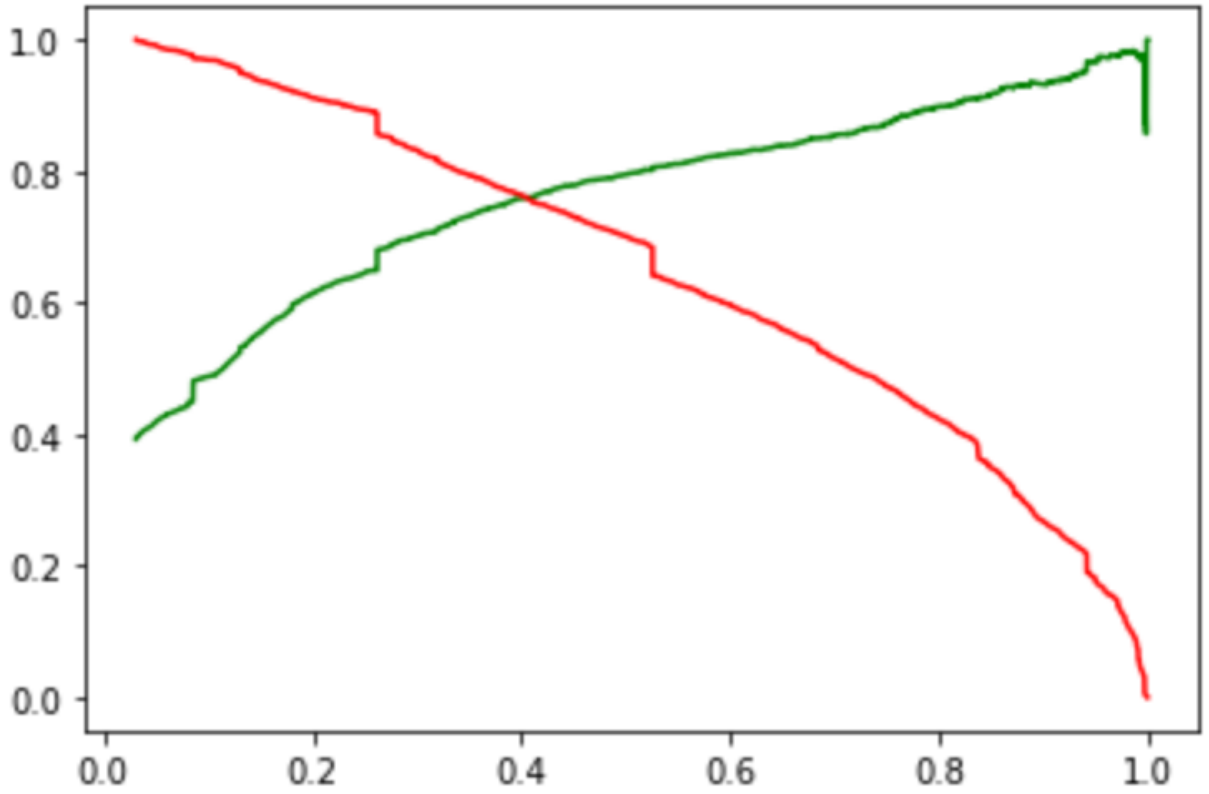
Optimal cutoff probability is that probwhere we get balanced sensitivity and specificity.

Model evaluation(TRAIN)c



Accuracy sensitivity and specificity
Train Data:
Accuracy : 81.07%
Sensitivity : 79.3%
Specificity : 82.1%

Model evaluation (TEST)



Accuracy sensitivity and specificity
Test Data:
Accuracy : 79.68%
Sensitivity : 81%
Specificity : 78.47%

Conclusion

The model seems to be performing well.

Train Data:
Accuracy : 81.07%
Sensitivity : 79.3%
Specificity : 82.1%

Test Data:
Accuracy : 79.68%
Sensitivity : 81%
Specificity : 78.47%

The model seems to be performing well. Can be recommend this model in making good calls based on this model.

Thank You.