LEAD SCORING CASE STUDY

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PROBLEM STATEMENT

- Industry professionals can purchase online courses from X Education, an education firm. Many experts who are interested in the courses visit their website and look through the offerings on any given day.

  Some of the leads convert during this process, but the majority do not. At X education,
- the lead conversion rate is typically 30%.

  You have been assigned by X Education to assist them in identifying the most promising prospects—that is,
- the leads with the highest likelihood of becoming paying clients.

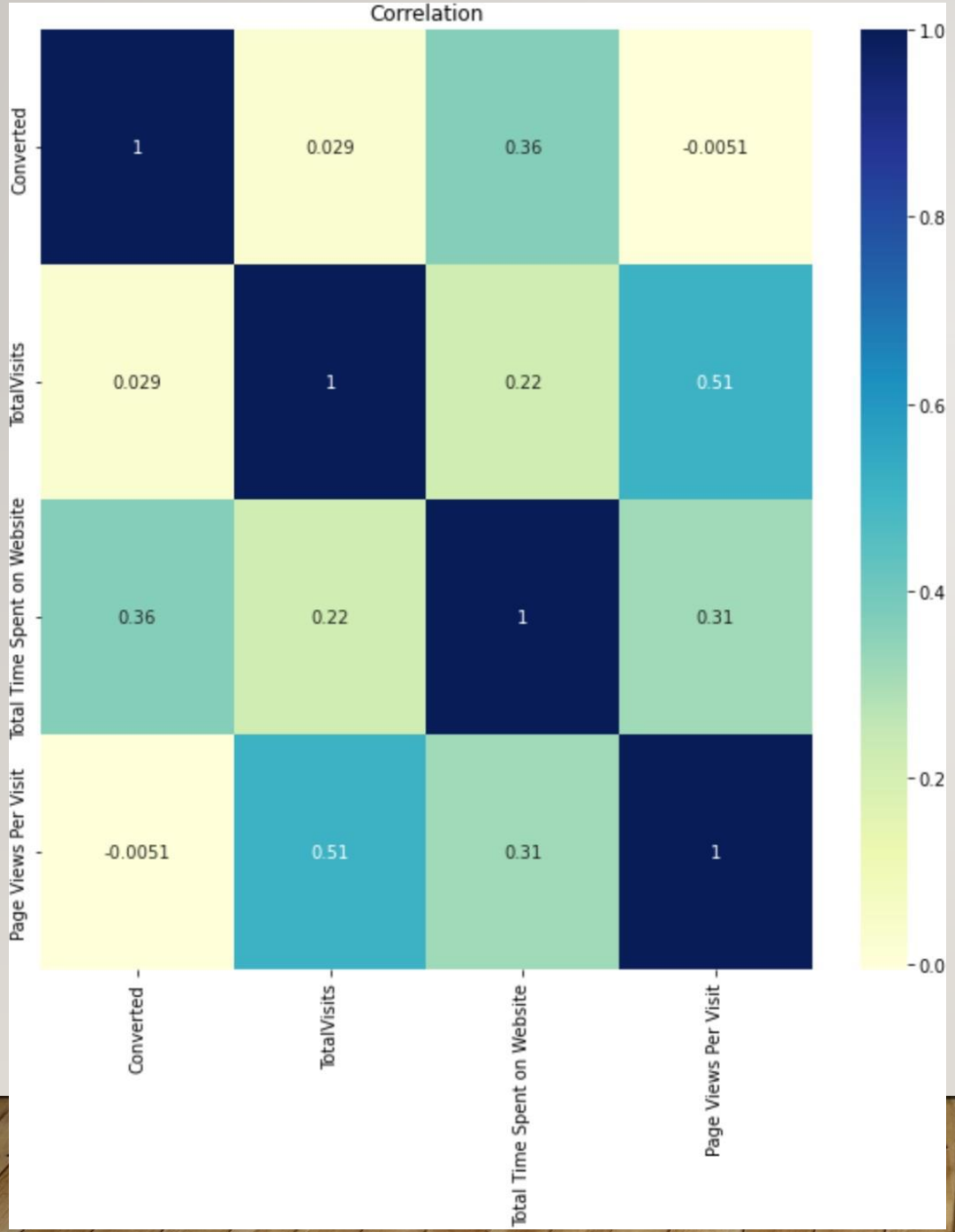
BUSINESS GOAL

- Your job at the company is to create a model in which you have to give each lead a score such that customers who have higher lead scores are more likely to convert, and customers who have lower lead scores are less likely to do so.

  The intended lead conversion rate, as stated by the CEO in particular, is approximately 80%.

STRATEGY

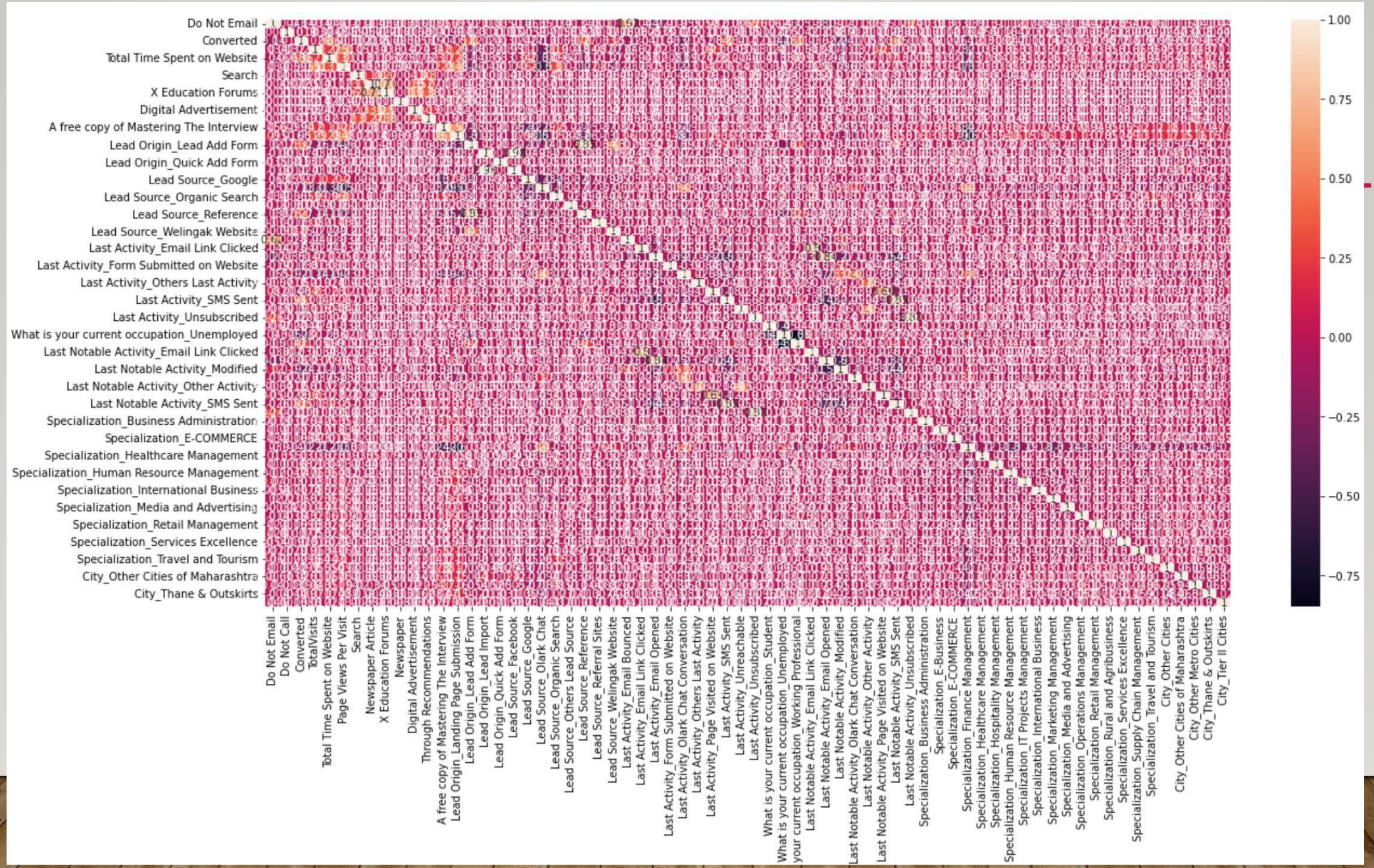
- Import dataset
- Data Cleaning
- Exploratory Data Analysis
- Scaling Features
- Prepare the data for model building
- Logistic Regression Model
- Assign a lead score for each leads
- Train and test Model
- Evaluate the model
- Test the Model in test set
- Measure the accuracy of the model



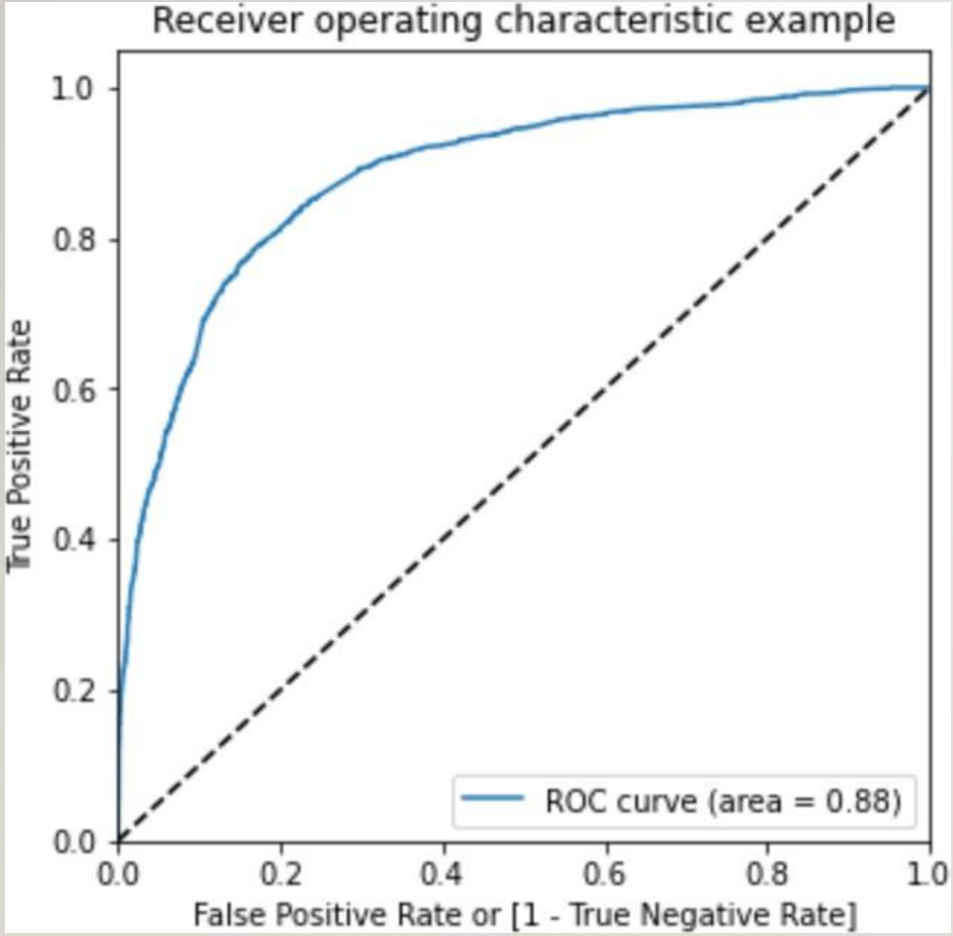
Correlation

- Total Visits
- Converted
- Total time spent on website

HEAT MAP TO CHECK FOR CORRELATION

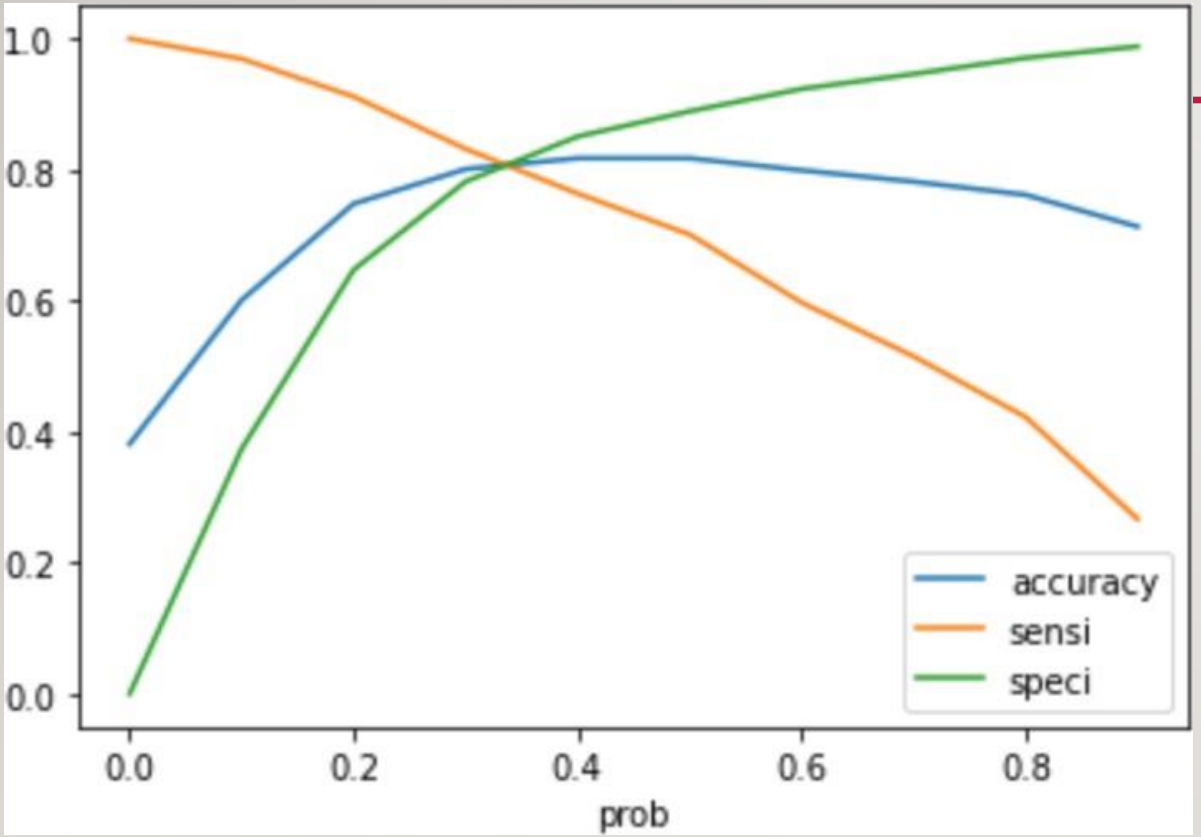


ROC Curve



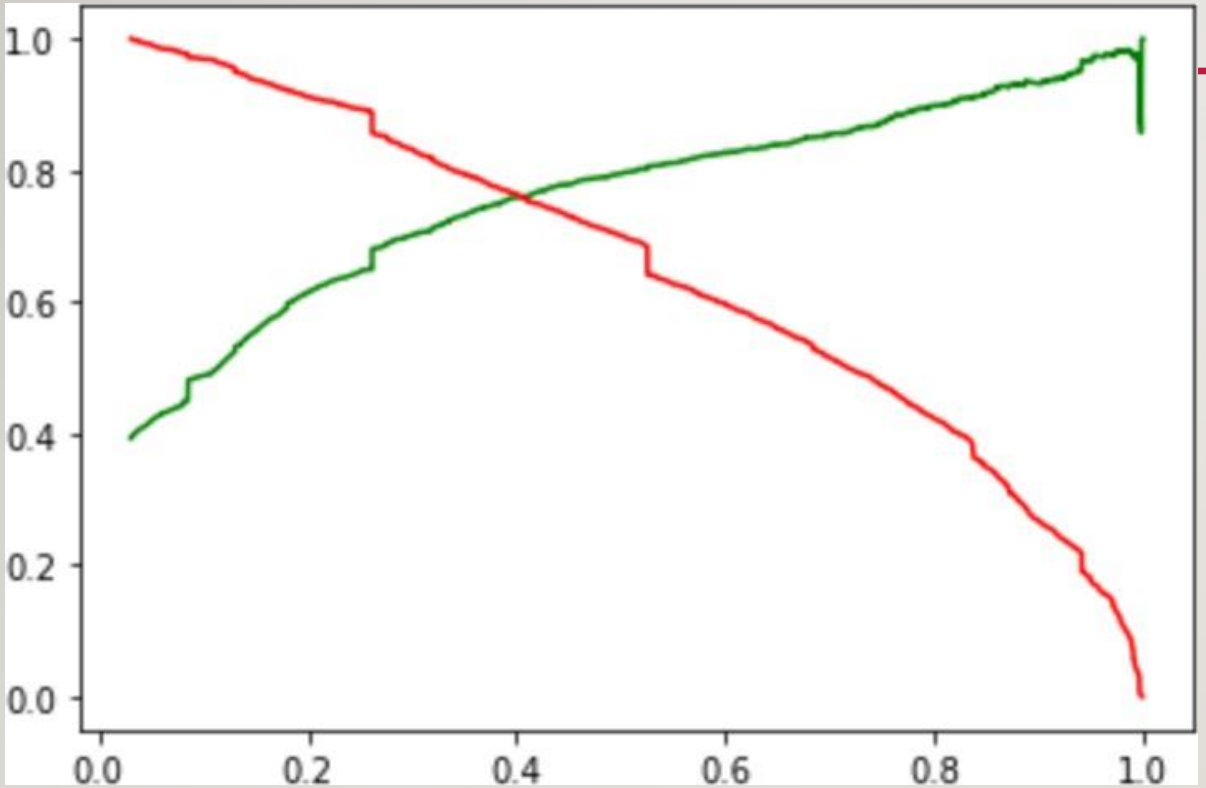
Optimal cutoff probability is that probwhere we get balanced sensitivity and specificity.

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 appears to be operating efficiently. Is it possible to provide this model for making wise decisions.

Thank You.