



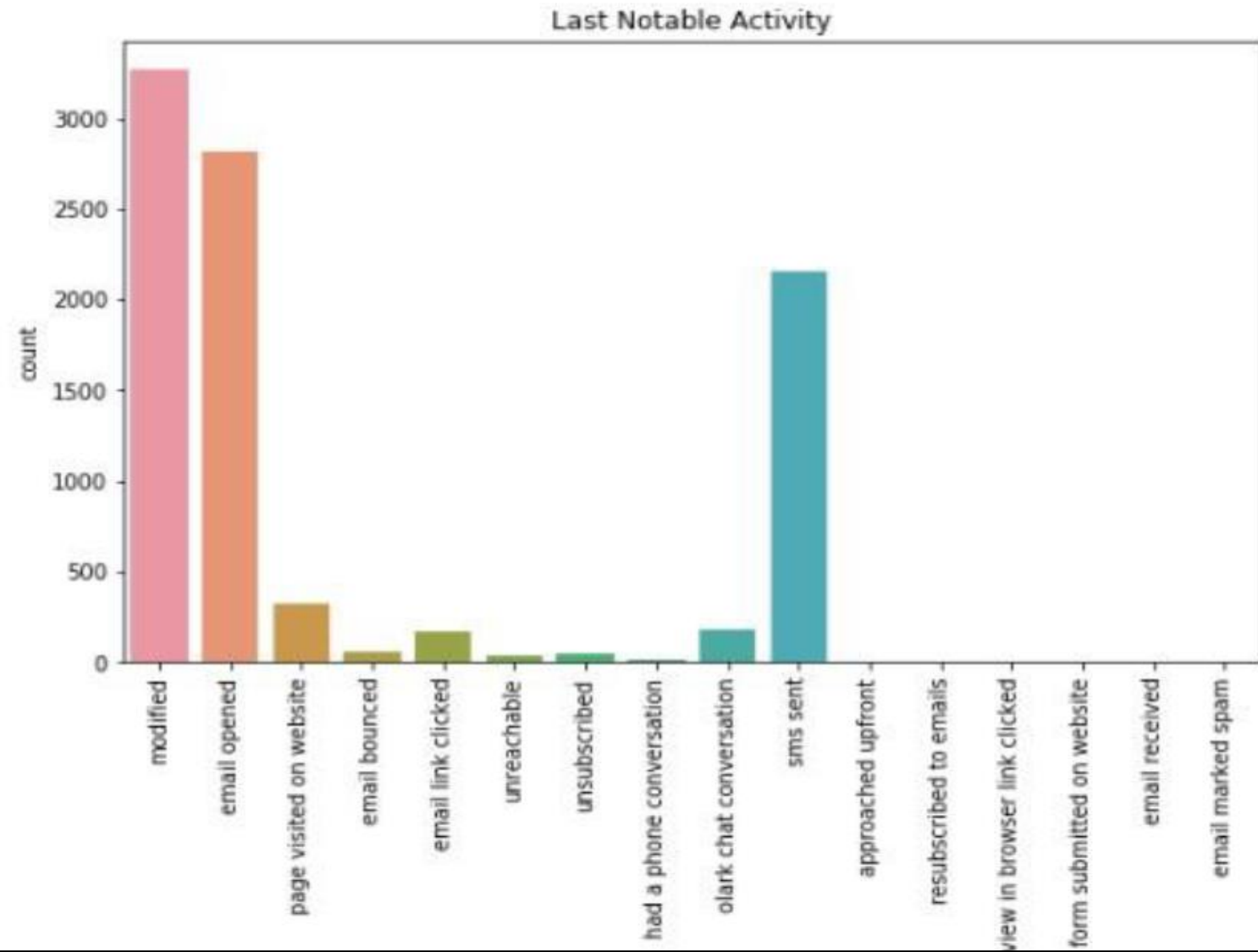
Lead Score Case Study

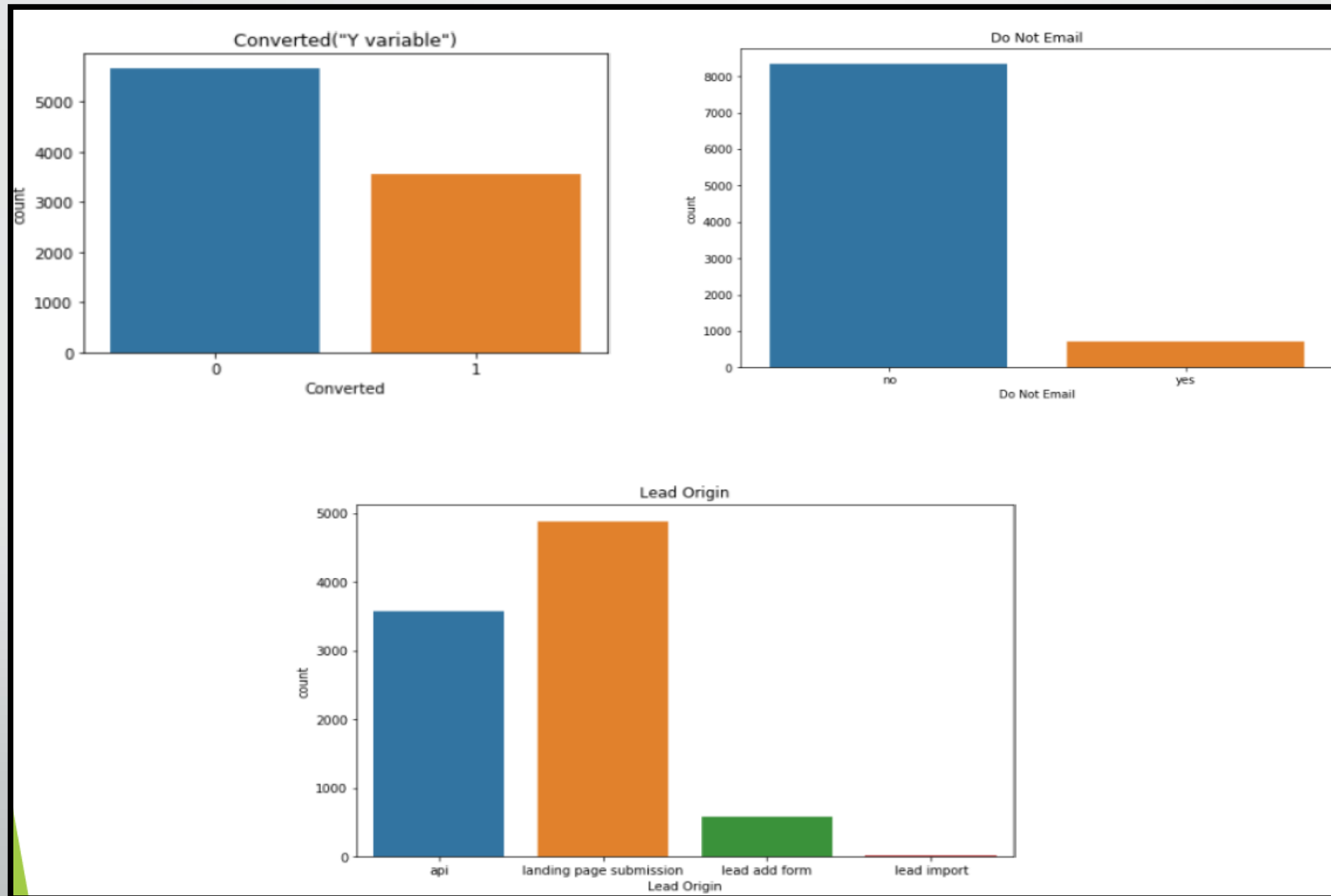
Ashwani Bindroo

Data Manipulation

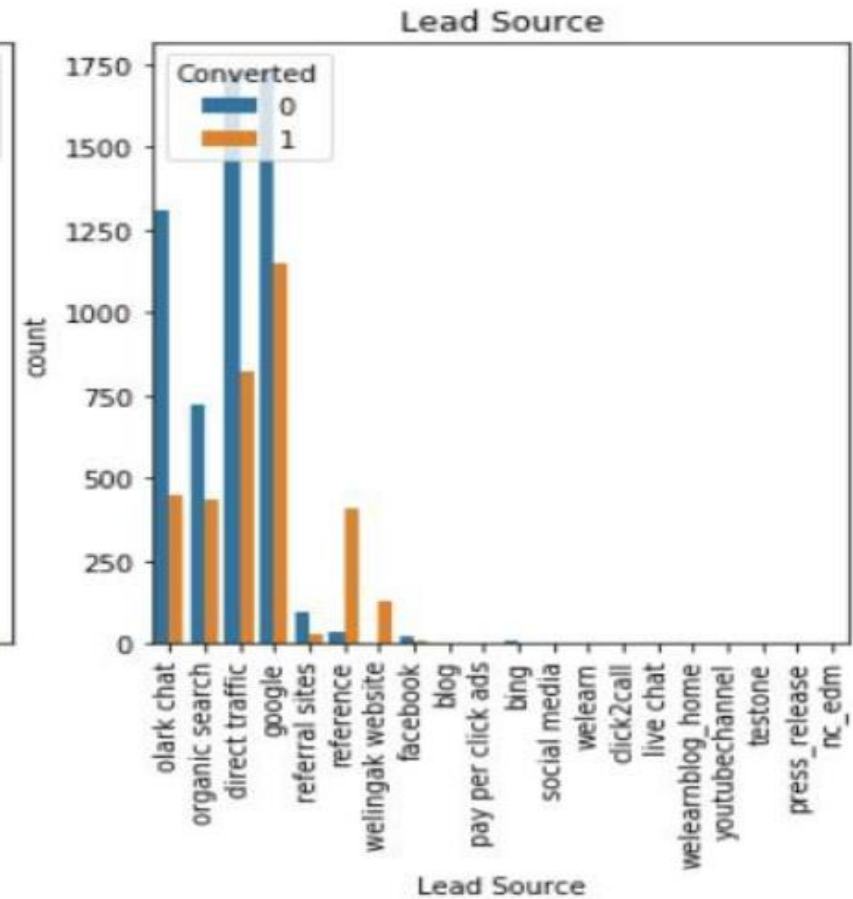
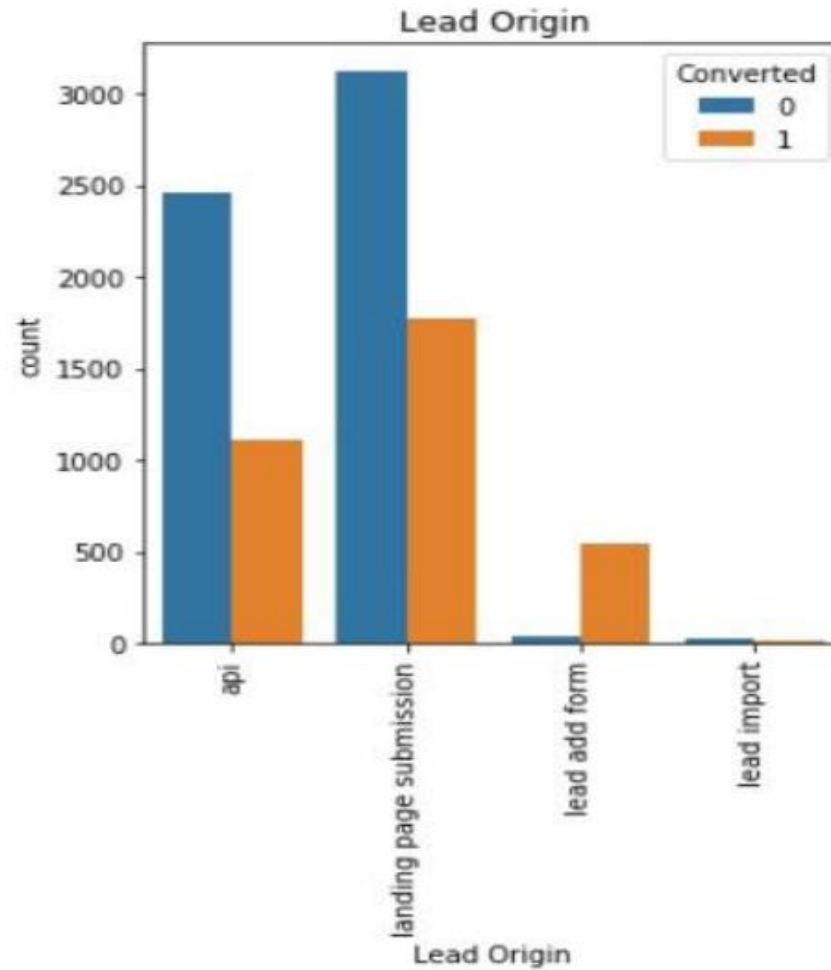
- ▶ Total Number of Rows =37, Total Number of Columns =9240.
- ▶ Single value features like “Magazine”, “Receive More Updates About Our Courses”, “Update me on Supply”
- ▶ Chain Content”, “Get updates on DM Content”, “I agree to pay the amount through cheque” etc. have been dropped.
- ▶ Removing the “Prospect ID” and “Lead Number” which is not necessary for the analysis.
- ▶ After checking for the value counts for some of the object type variables, we find some of the features which has no enough variance, which we have dropped, the features are: “Do Not Call”, “What matters most to you in choosing course”, “Search”, “Newspaper Article”, “X Education Forums”, “Newspaper”, “Digital Advertisement” etc.
- ▶ Dropping the columns having more than 35% as missing value such as ‘How did you hear about X Education’ and ‘Lead Profile’.

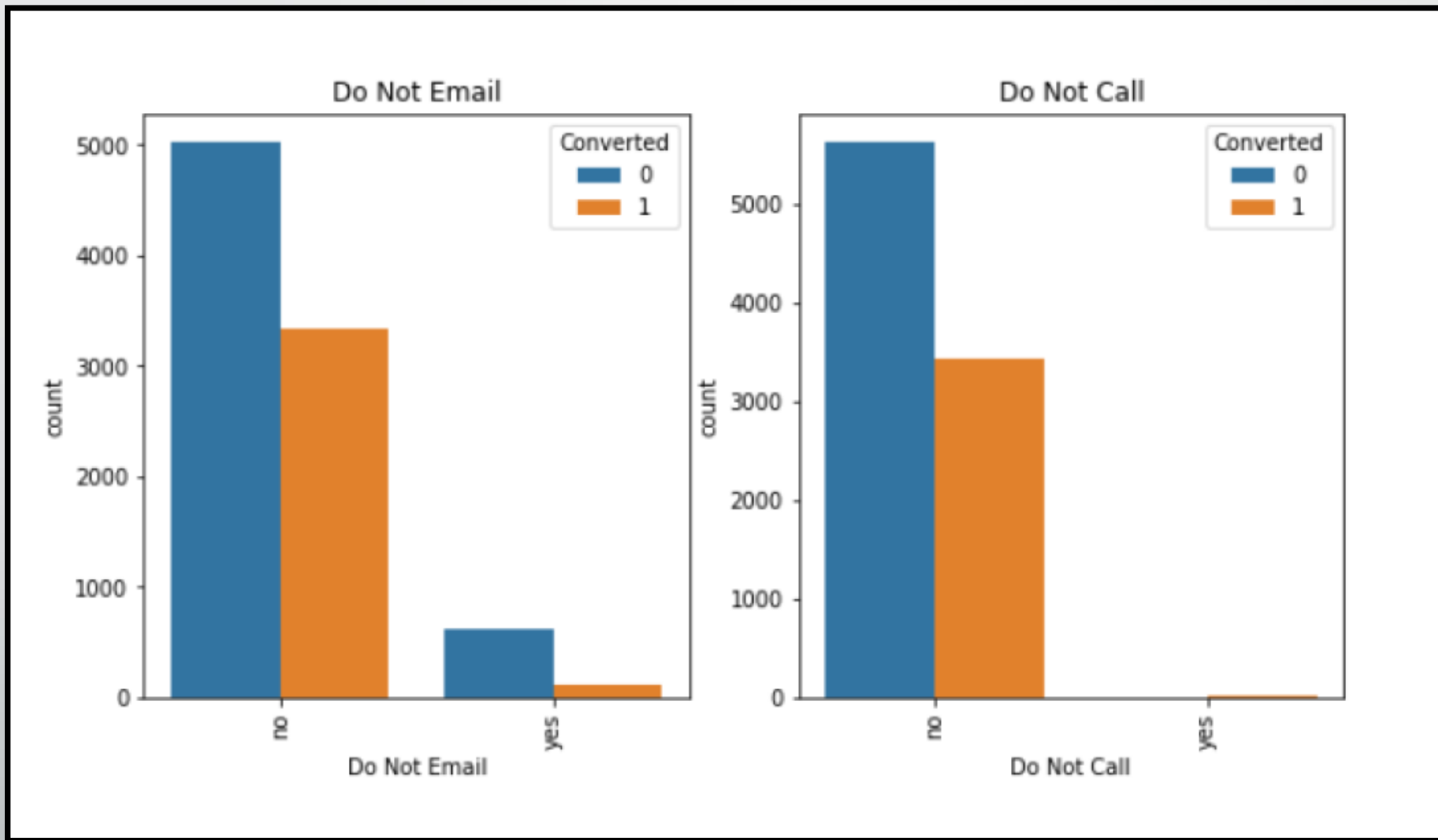
EDA

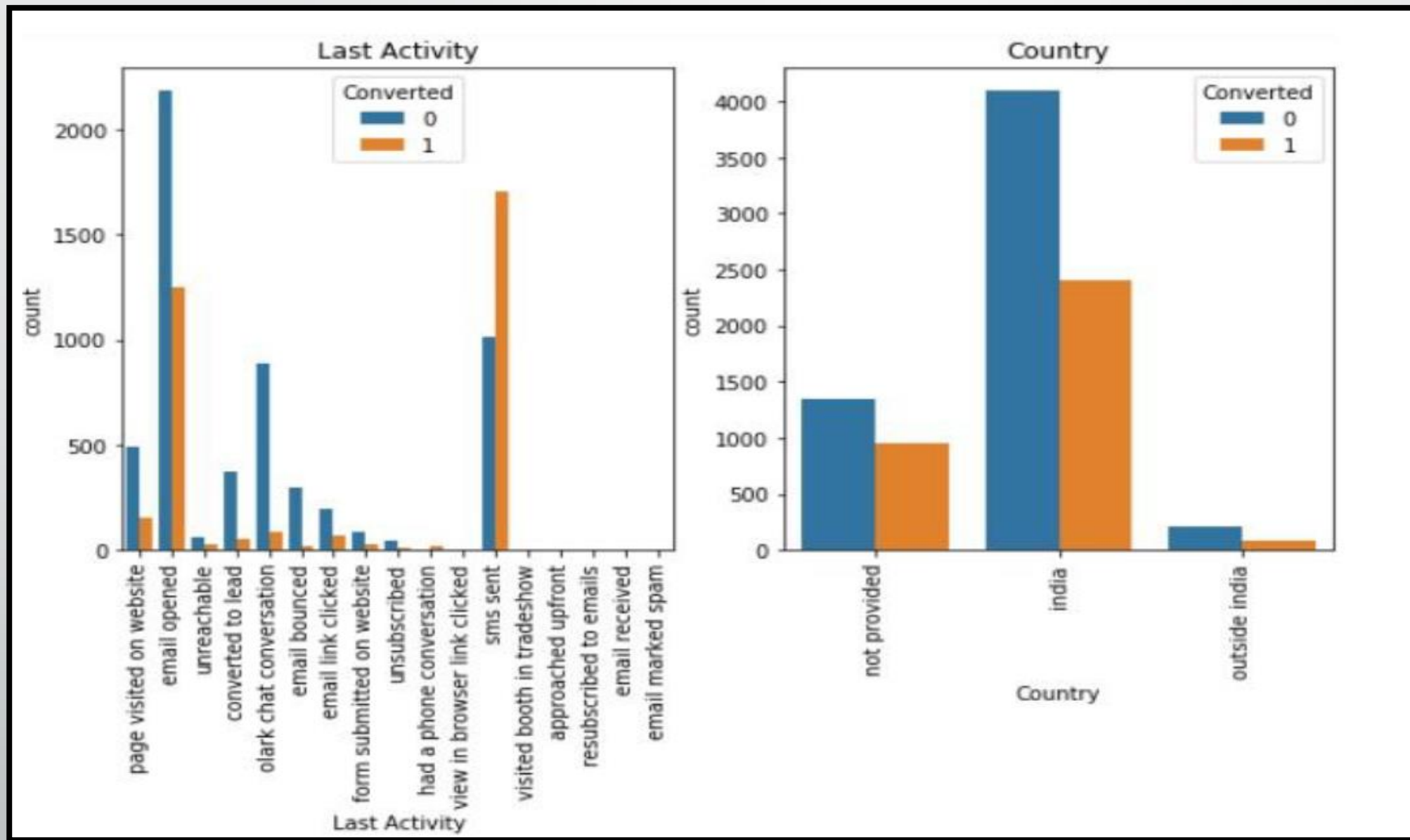




Categorical Variable Relation







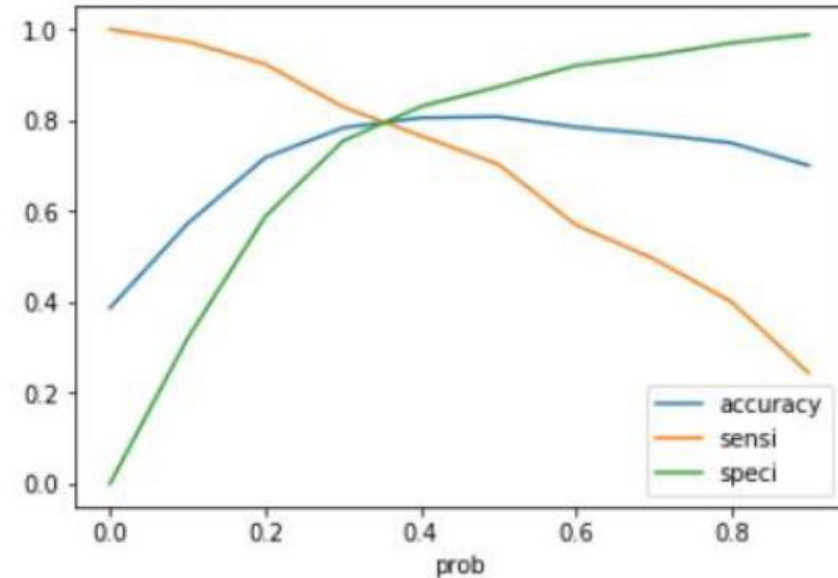
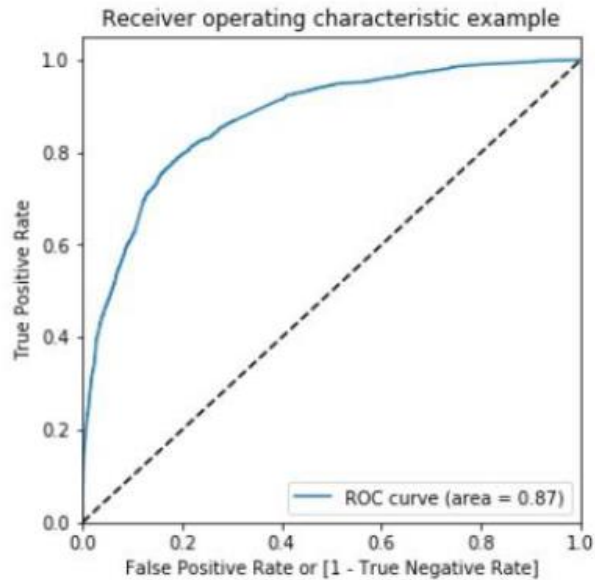
Data Conversion

- ▶ Numerical Variables are Normalised
- ▶ Dummy Variables are created for object type variables
- ▶ Total Rows for Analysis: 8792
- ▶ Total Columns for Analysis: 43

Model Building

- ▶ Splitting the Data into Training and Testing Sets
- ▶ The first basic step for regression is performing a train-test split, we have chosen 70:30 ratio.
- ▶ Use RFE for Feature Selection
- ▶ Running RFE with 15 variables as output
- ▶ Building Model by removing the variable whose p- value is greater than 0.05 and vif value is greater than 5
- ▶ Predictions on test data set
- ▶ Overall accuracy 81%

ROC Curve



- **Finding Optimal Cut off Point**
- Optimal cut off probability is that
- probability where we get balanced sensitivity and specificity.
- From the second graph it is visible that the optimal cut off is at 0.35.

Conclusion

It was found that the variables that mattered the most in the potential buyers are (In descending order) :

- ▶ The total time spend on the Website.
- ▶ Total number of visits.
- ▶ When the lead source was:
 - a. Google
 - b. Direct traffic
 - c. Organic search
 - d. Welingak website
- ▶ When the last activity was:
 - a. SMS
 - b. Olark chat conversation
- ▶ When the lead origin is Lead add format.
- ▶ When their current occupation is as a working professional.
Keeping these in mind the X Education can flourish as they have a very high chance to get almost all the potential buyers to change their mind and buy their courses.