



Lead Scoring Assignment

LOGESH RAJA MU
MOHIT JAIN
MUSKAN AGARWAL

Contents

- ▶ Problem statement
- ▶ Problem approach
- ▶ EDA
- ▶ Correlations
- ▶ Model Evaluation
- ▶ Observations
- ▶ Conclusion

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. They have process of form filling on their website after which the company that individual as a lead.

Once these leads are acquired, employees from the sales team start making calls, writing emails, etc. Through this process, some of the leads get converted while most do not.

The typical lead conversion rate at X education is around 30%. Now, this means if, say, they acquire 100 leads in a day, only about 30 of them are converted. To make this process more efficient, the company wishes to identify the most potential leads, also known as Hot Leads.

If they successfully identify this set of leads, the lead conversion rate should go up as the sales team will now be focusing more on communicating with the potential leads rather than making calls to everyone

Business Objective

Lead X wants us to build a model to give every lead a lead score between 0 -100 .

So that they can identify the Hot leads and increase their conversion rate as well.

The CEO want to achieve a lead conversion rate of 80%.

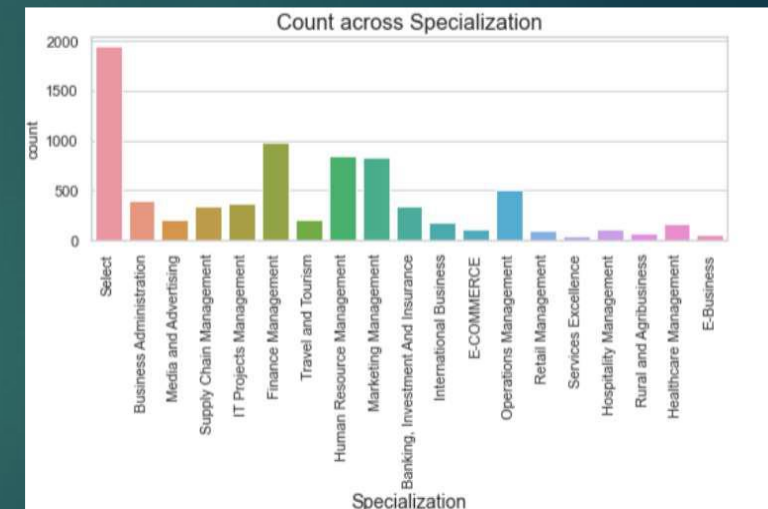
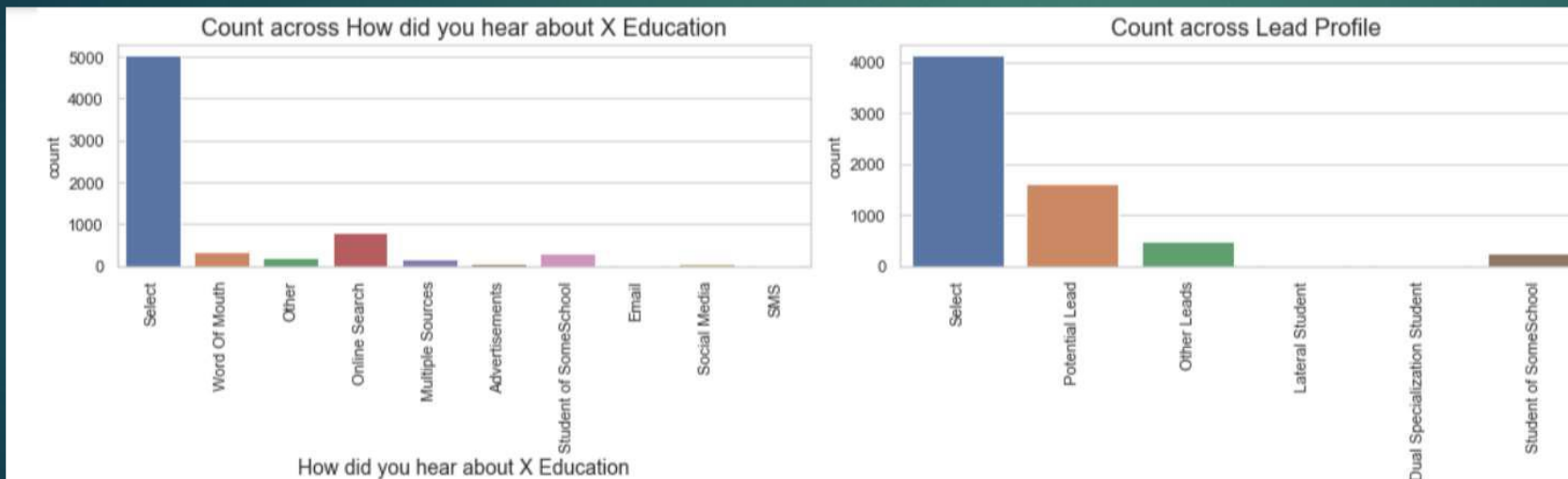
They want the model to be able to handle future constraints as well like Peak time actions required, how to utilize full man power and after achieving target what should be the approaches.

Problem Approach

- ▶ Importing the data and inspecting the data frame
- ▶ Data preparation
- ▶ EDA
- ▶ Dummy variable creation
- ▶ Test-Train split
- ▶ Feature scaling
- ▶ Correlations
- ▶ Model Building (RFE Rsquared VIF and pvalues)
- ▶ Model Evaluation
- ▶ Making predictions on test set

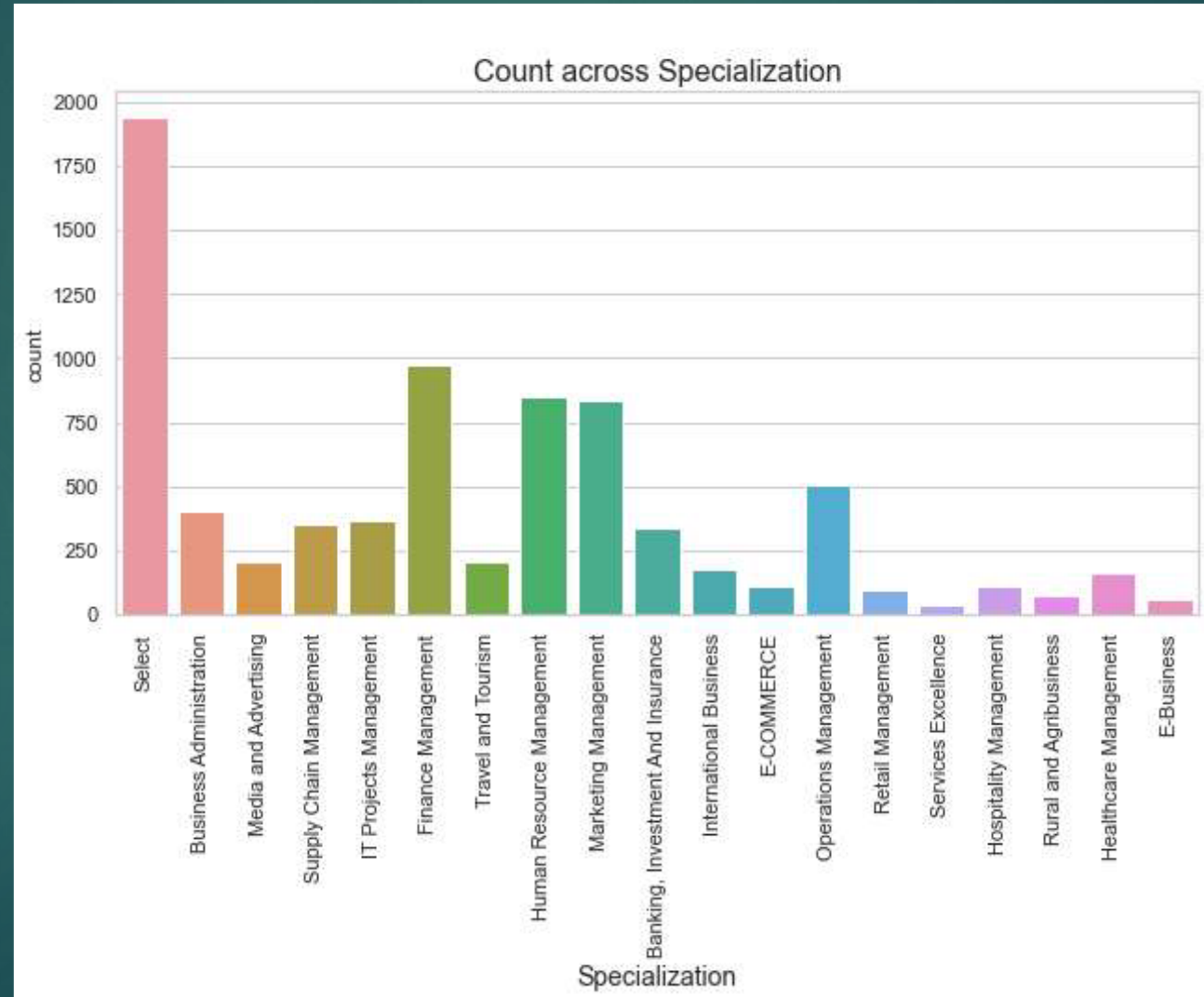
EDA

Several columns contain a "Select" option, which is currently being handled •



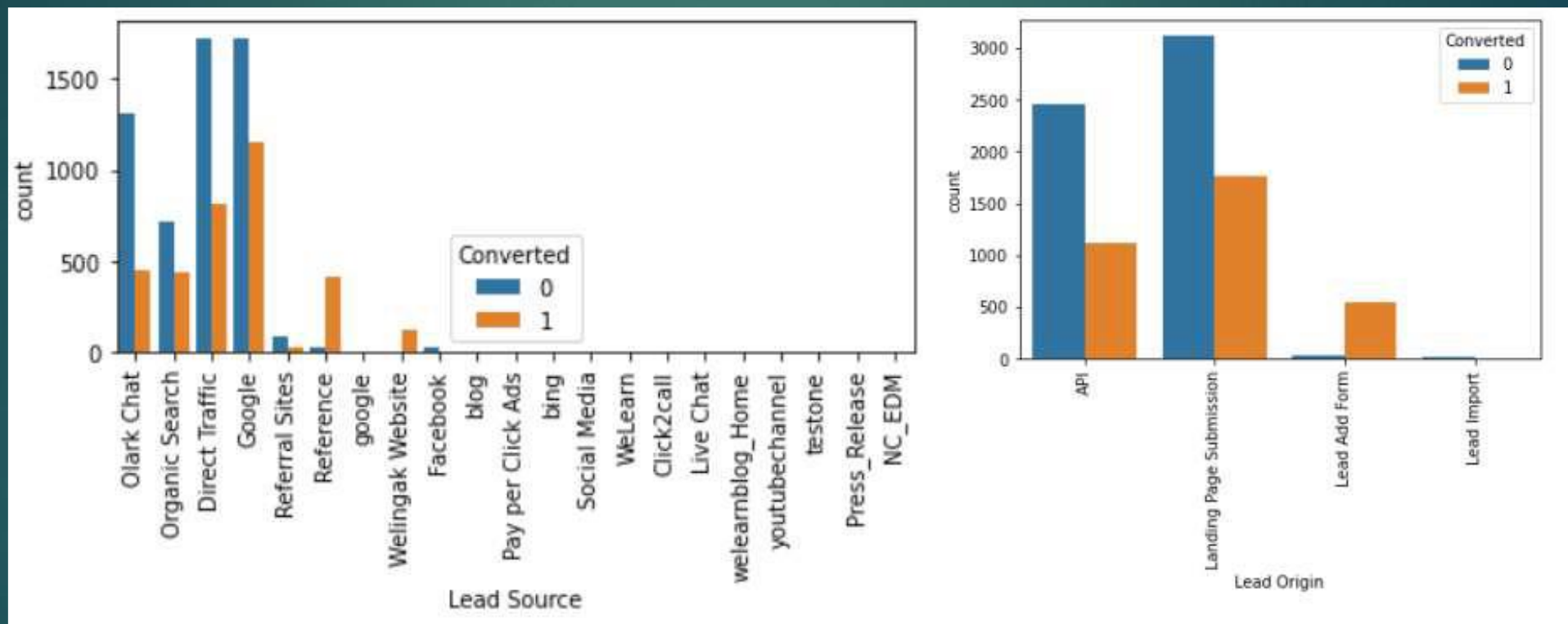
Specialization

Leads in HR, Finance, and Marketing management fields are more likely to enroll in the course.



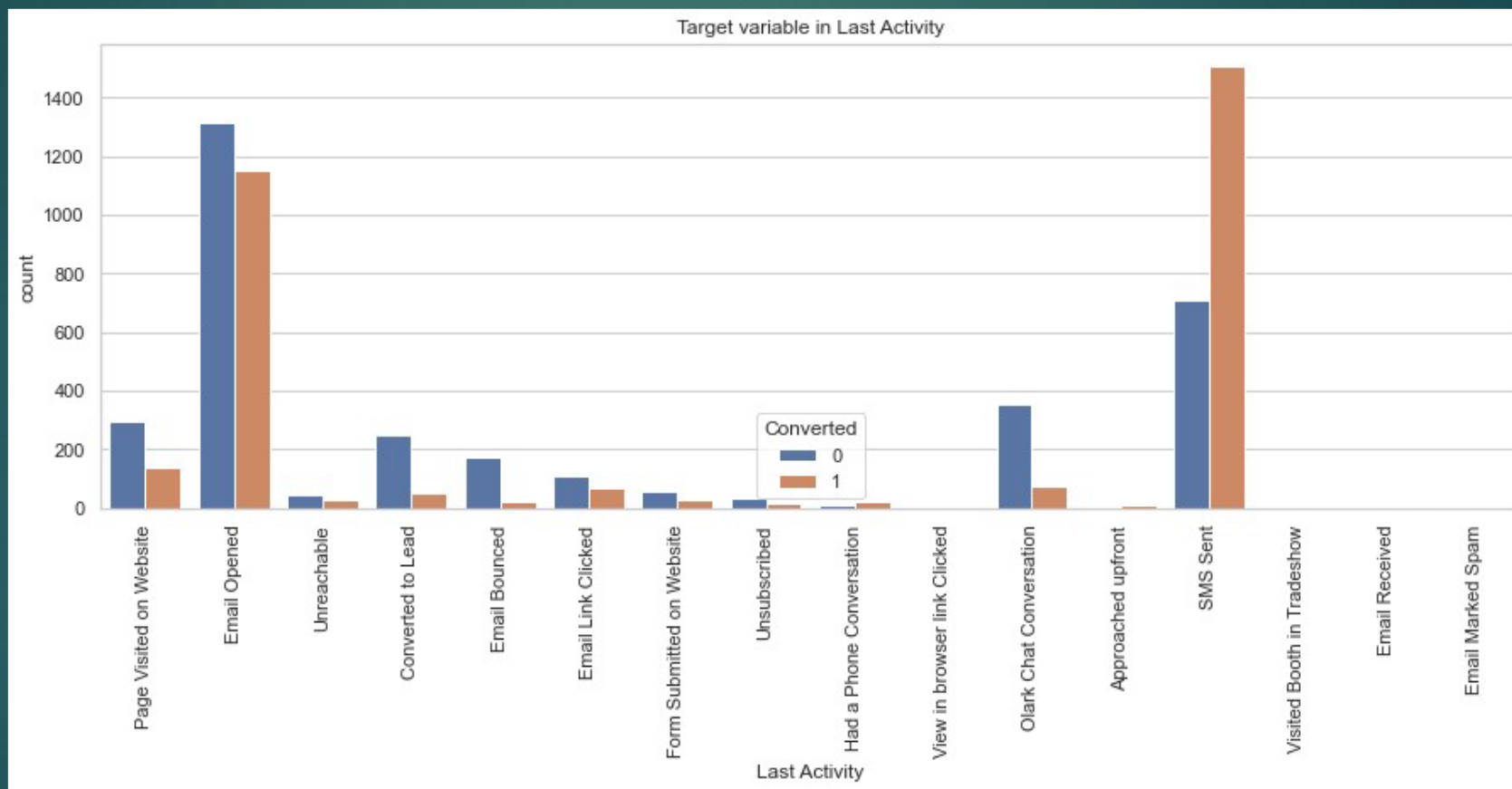
Lead Source and Origin

Google and direct traffic are the most effective lead sources for driving conversions. However, most leads are entering the funnel through the "submission" origin point.



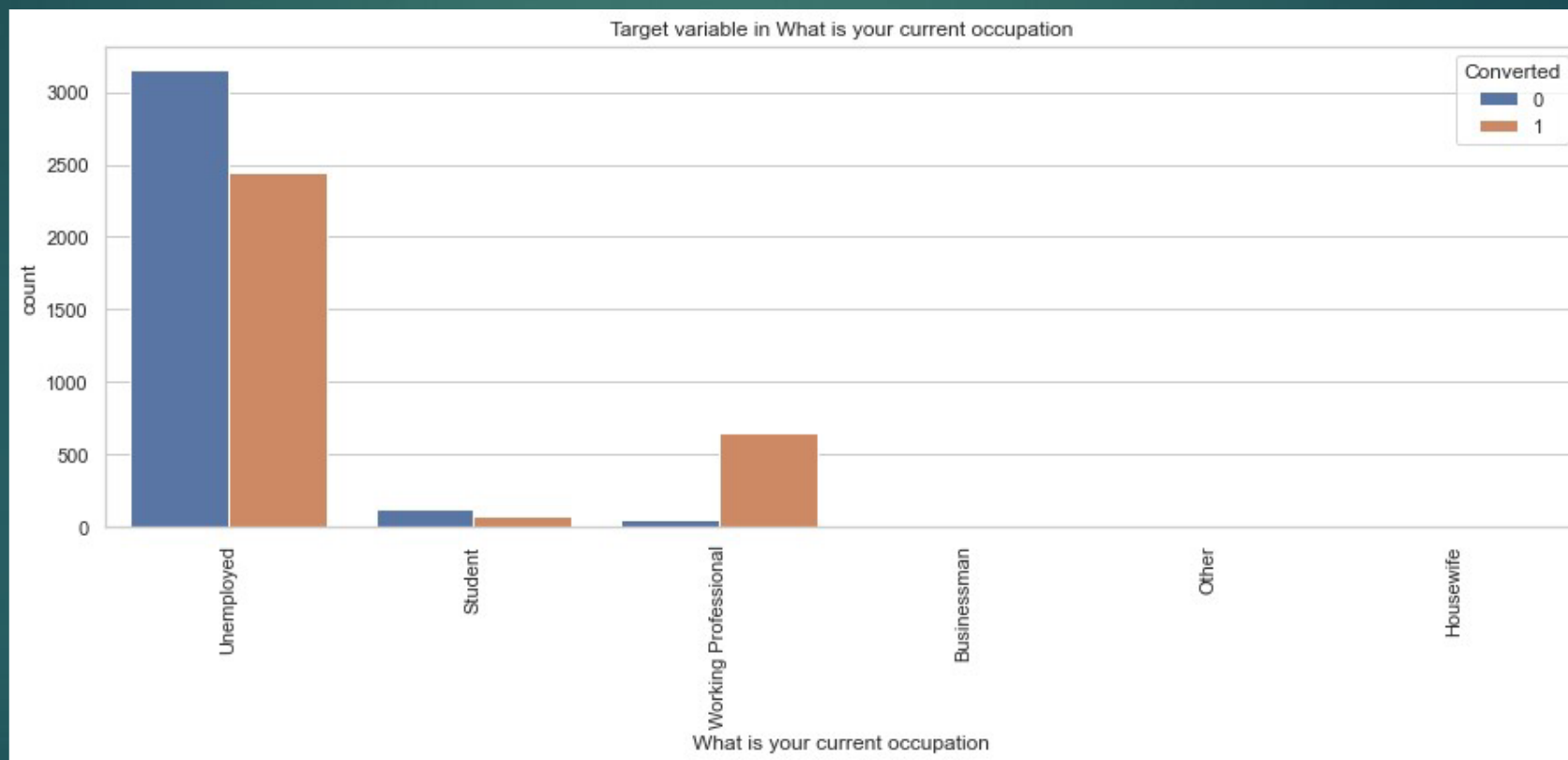
Last Lead Activity

Leads who engage with email communications, such as opening emails, are more likely to convert. Similarly, SMS campaigns can also contribute to increased conversion rates.



What is your Occupation

Unemployed leads tend to show greater interest in enrolling in the course compared to other lead categories.



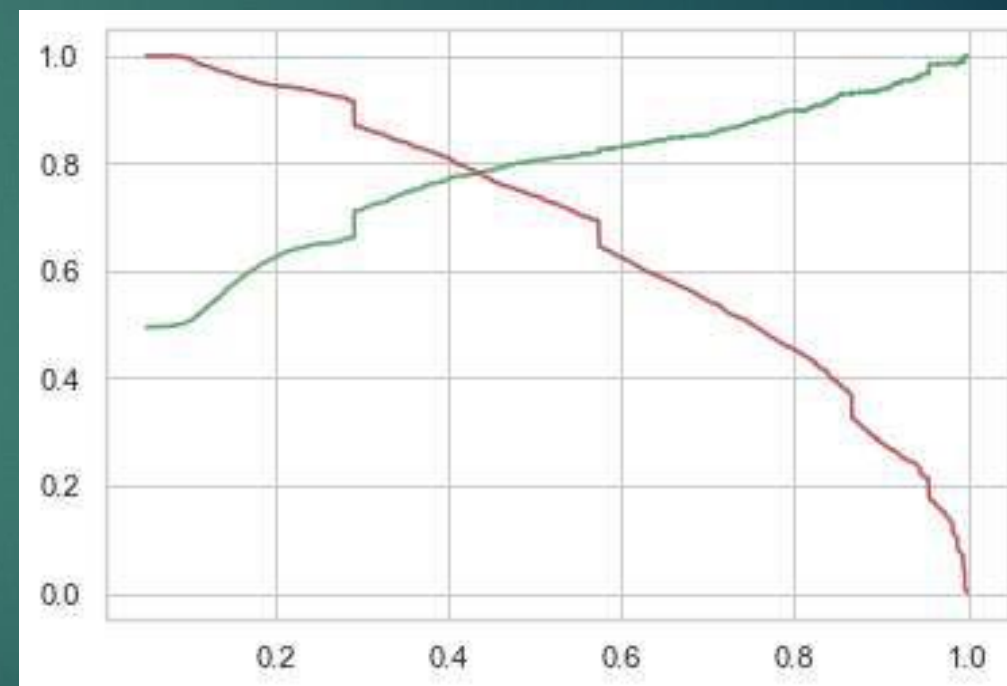
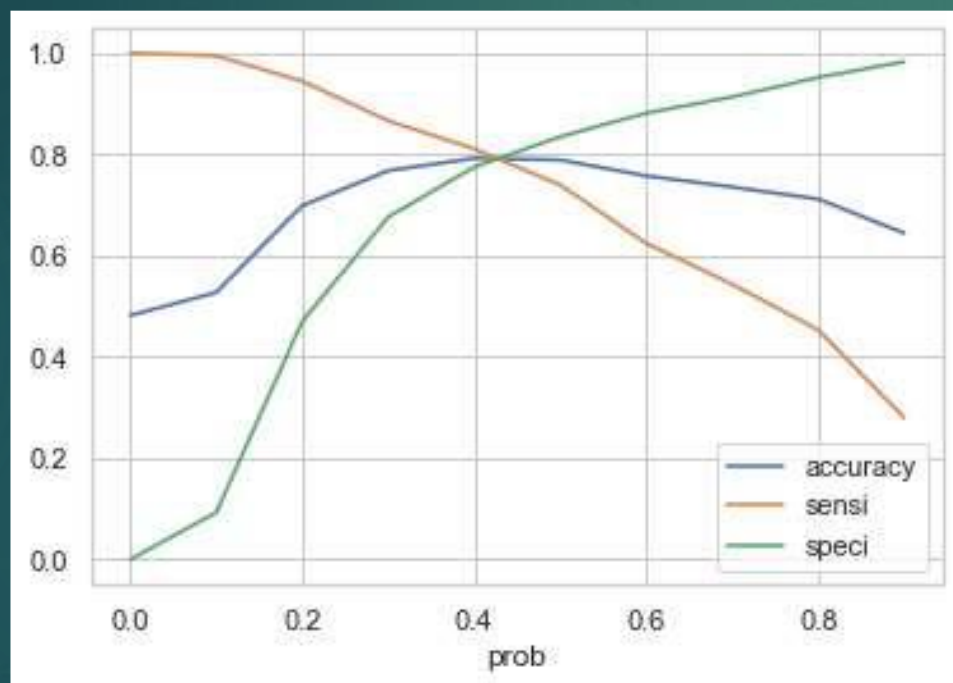
Correlation

The variables are not related to each other.



Model Evaluation

We've found a balance between accuracy and completeness in our lead predictions. Any lead with a greater than 42% chance of converting can be confidently classified as a high-potential lead.



Observations

Final Features list:

- ▶ Lead Source_Olark Chat
- ▶ Specialization_Others
- ▶ Lead Origin_Lead Add Form
- ▶ Lead Source_Welingak Website
- ▶ Total Time Spent on Website
- ▶ Lead Origin_Landing Page Submission
- ▶ What is your current occupation_Working Professionals
- ▶ Do Not Email

Conclusion

Conversion Channels:

- **High-Performing Channels:** API and landing page submissions show promising conversion rates, close to the average.
- **Low-Performing Channels:** Lead add forms and lead imports have significantly lower conversion rates, indicating a need for improvement.
- **Focus Area:** Prioritize efforts to optimize API and landing page submissions to drive more conversions.

•Lead Generation Sources:

- **Top Lead Sources:** Google and direct traffic are the primary sources of lead generation.
- **High-Converting Sources:** Referrals and Welingak website exhibit the highest conversion rates.

•Lead Behavior and Conversion:

- **Engagement and Conversion:** Leads who spend more time on the website are more likely to convert.
- **Last Activity:** Email opens are the most common last activity, while SMS sends have the highest conversion rate.
- **Demographic Insights:** A significant portion of leads are unemployed, while working professionals show the highest conversion rates.