

LEADSCORING CASE STUDY USING LOGISTIC REGRESSION

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CONTENTS

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

PROBLEM STATEMENT

- X Education targets industry professionals, capturing leads via form submissions.
- Sales efforts follow, converting a fraction of leads while most remain unconverted.
- With a 30% typical conversion rate, they aim to pinpoint high-potential "Hot Leads."
- By focusing on these leads, efficiency should rise, elevating the conversion rate.

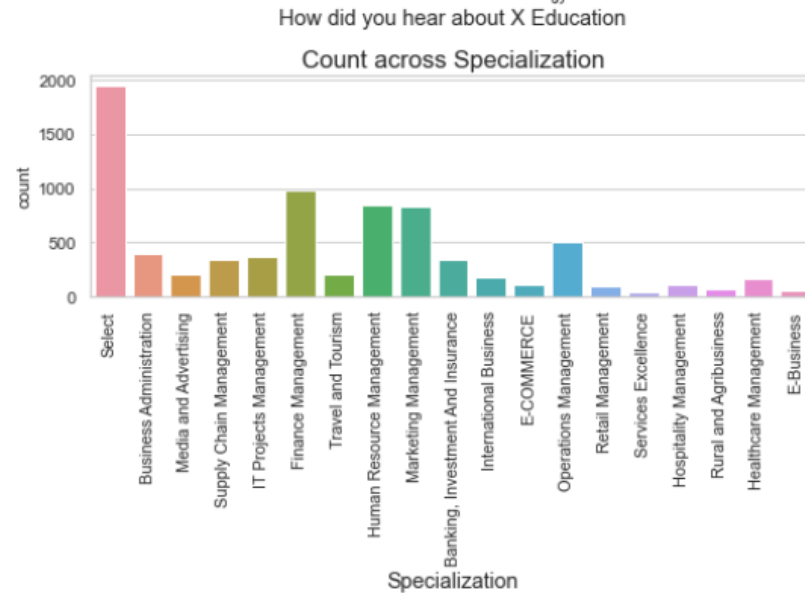
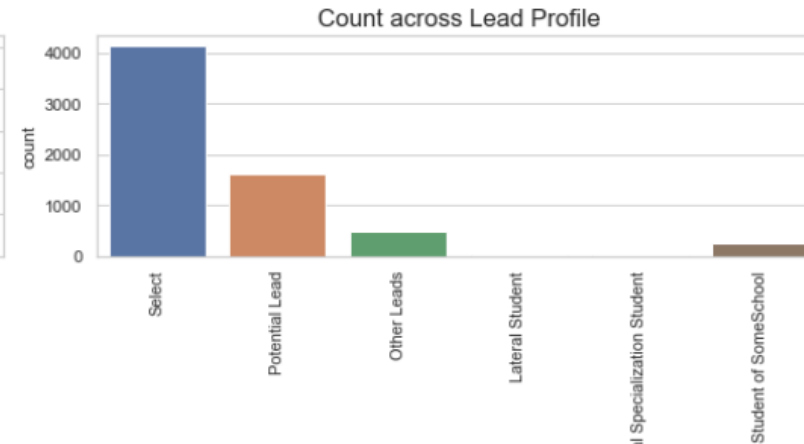
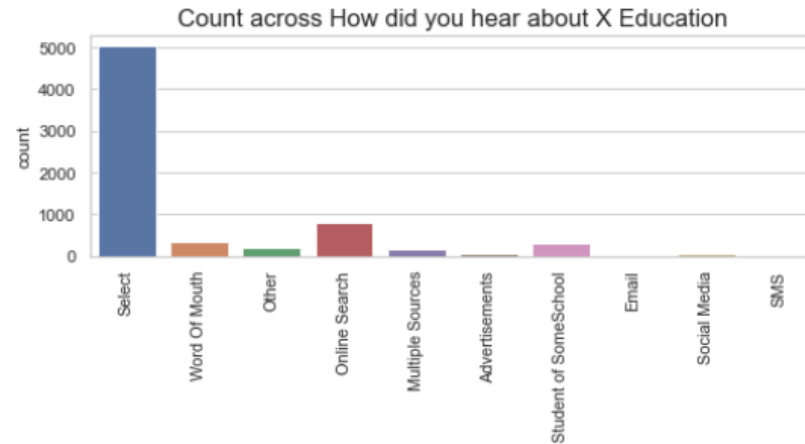
BUSINESS OBJECTIVE

- Lead X seeks a model assigning lead scores (0-100) for Hot lead identification.
- CEO targets an 80% conversion rate, aiming for adaptable future strategies.
- Model should accommodate peak times, optimal resource allocation, and post-target approaches.

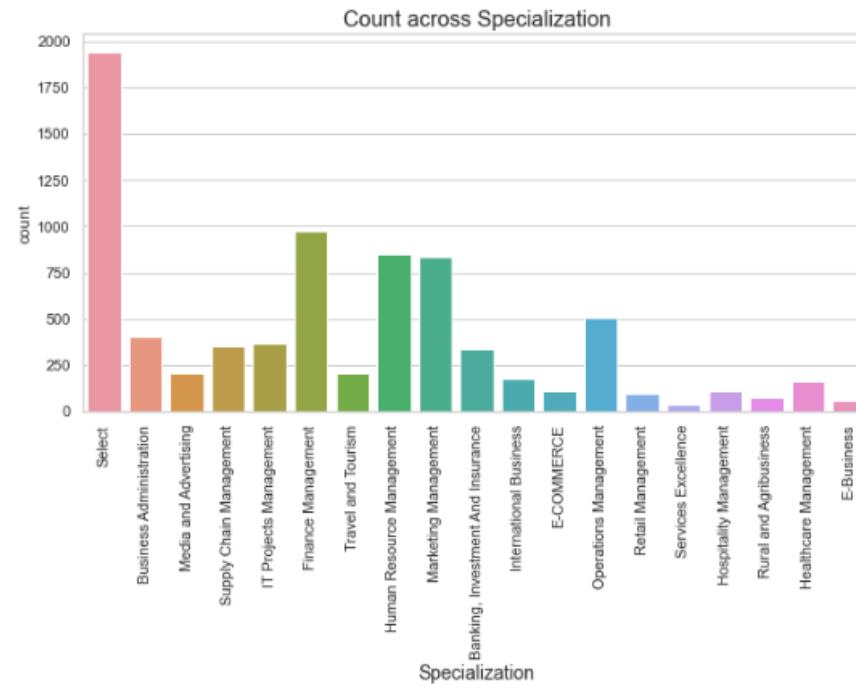
PROBLEM APPROACH

- Importing the data and inspecting the
- Data frame
- Data preparation
- EDA
- Dummy variable creation
- Test-Train split
- Feature scaling
- Correlations
- Model Development (RFE, R-squared, VIF, and p-values)
- Model Evaluation
- Making predictions on test set

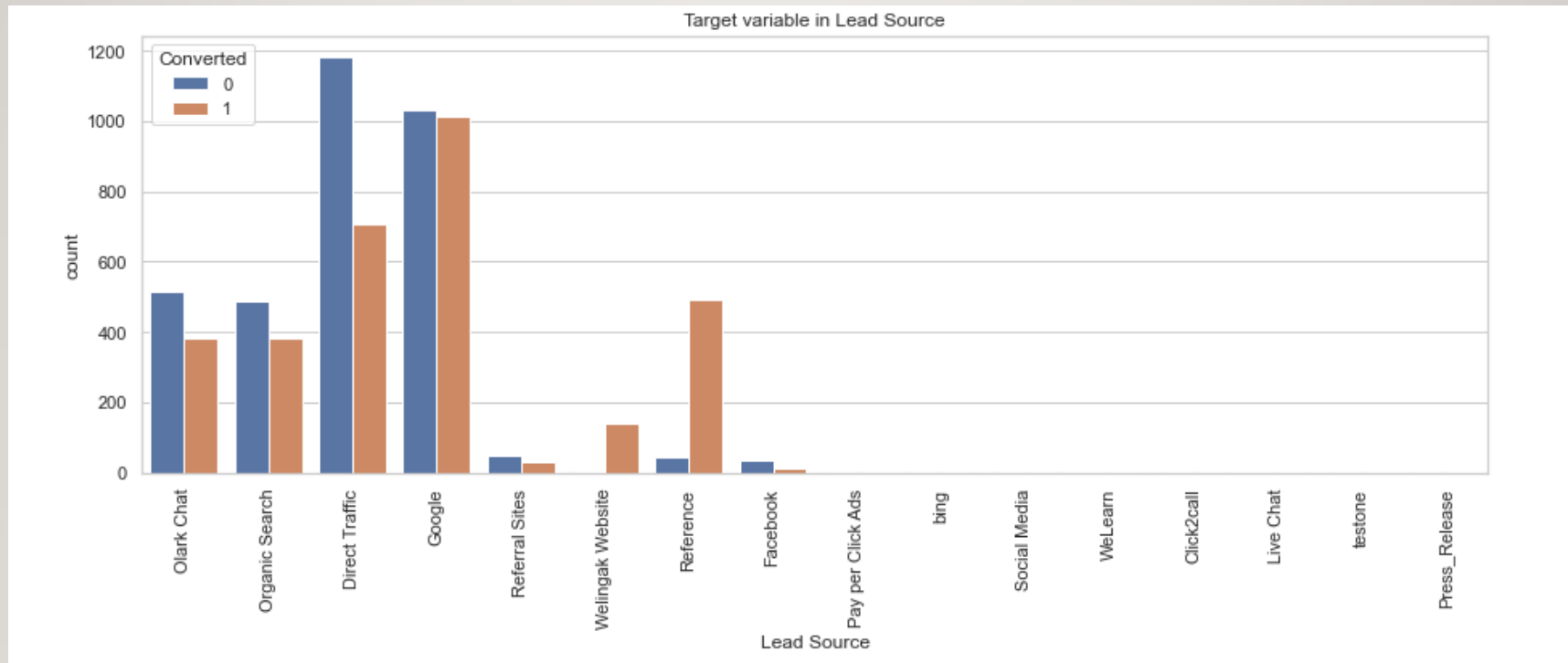
EDA – DATA CLEANING:



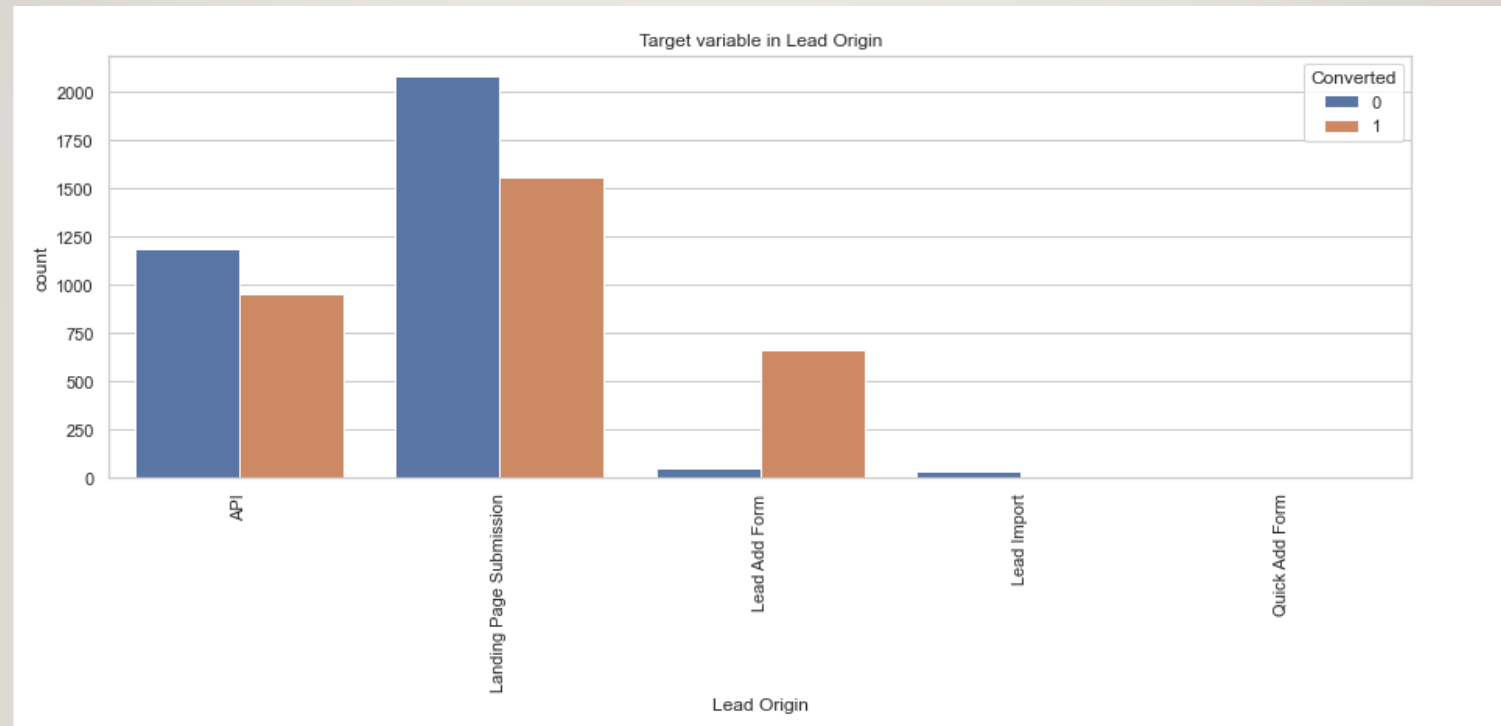
SPECIALIZATION



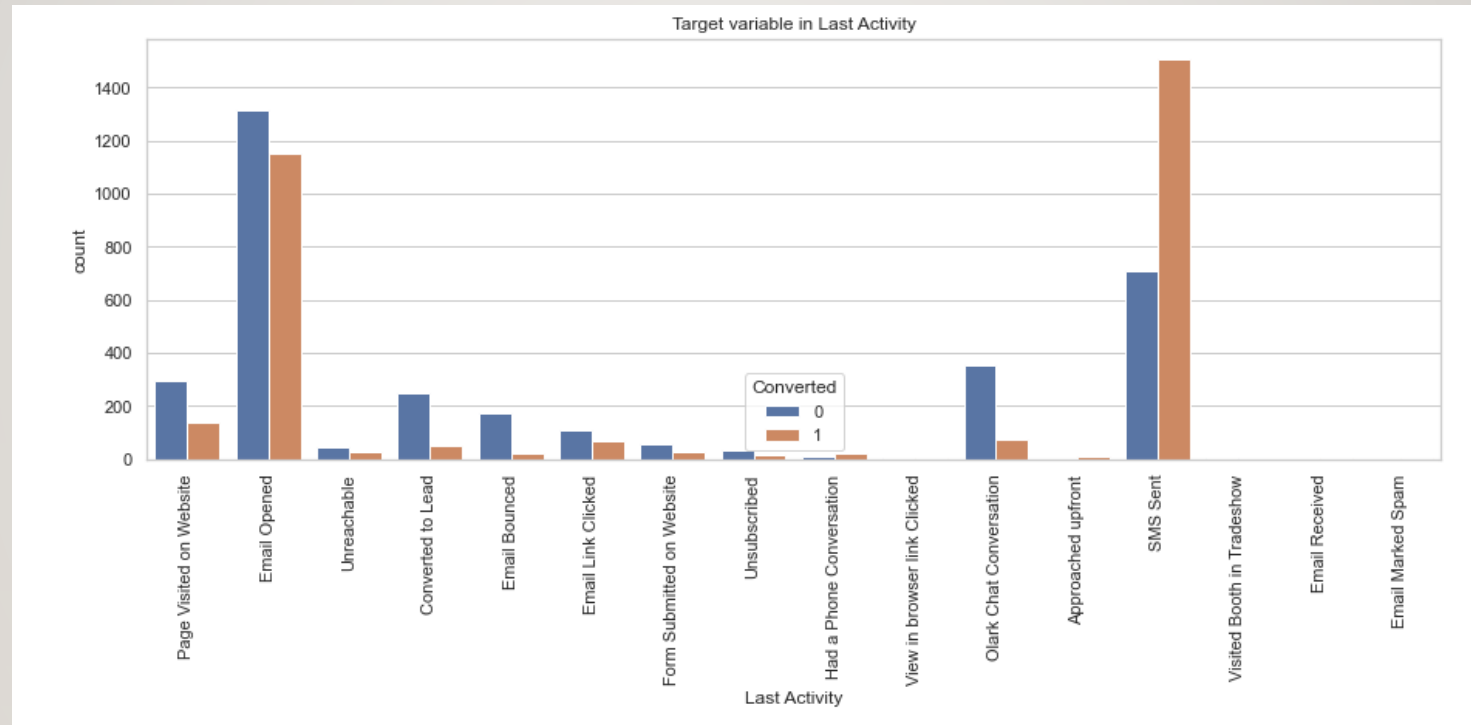
LEAD SOURCE



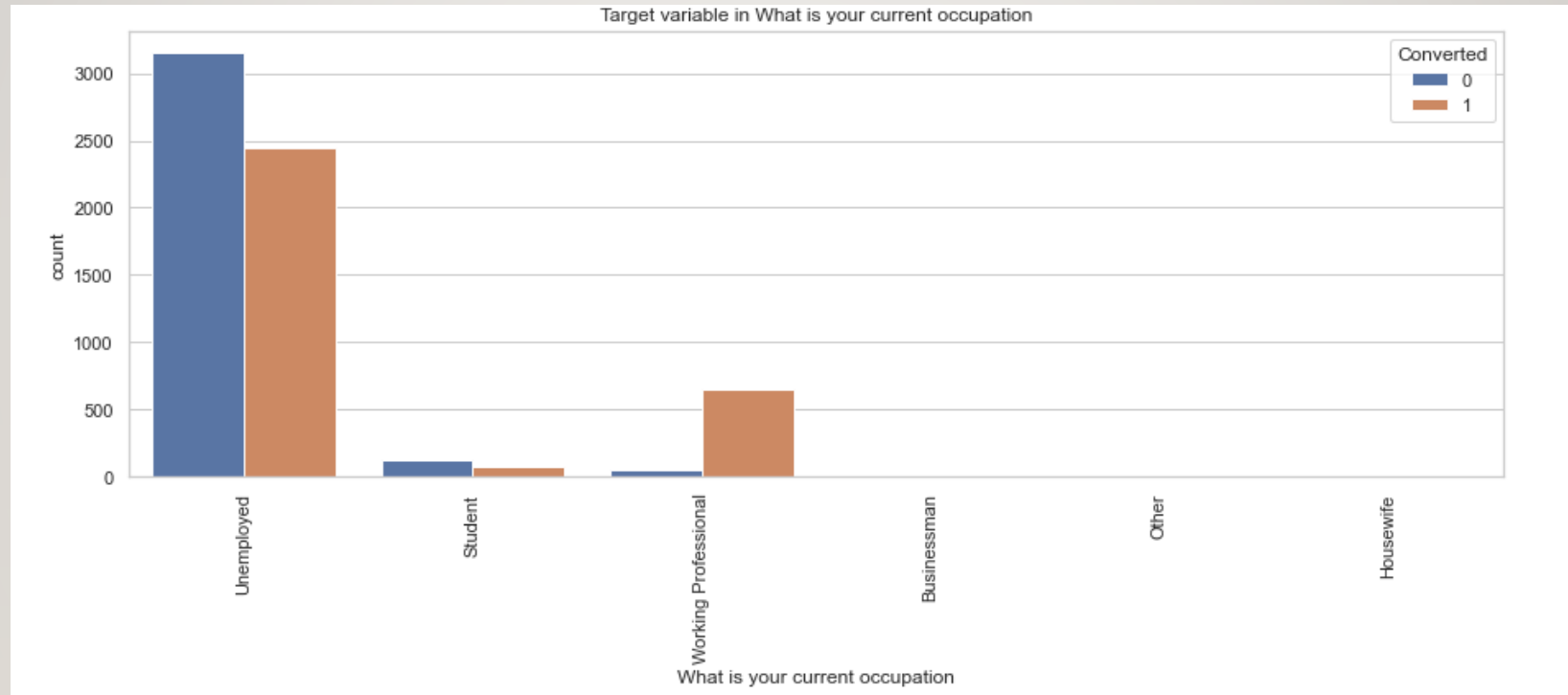
LEAD ORIGIN



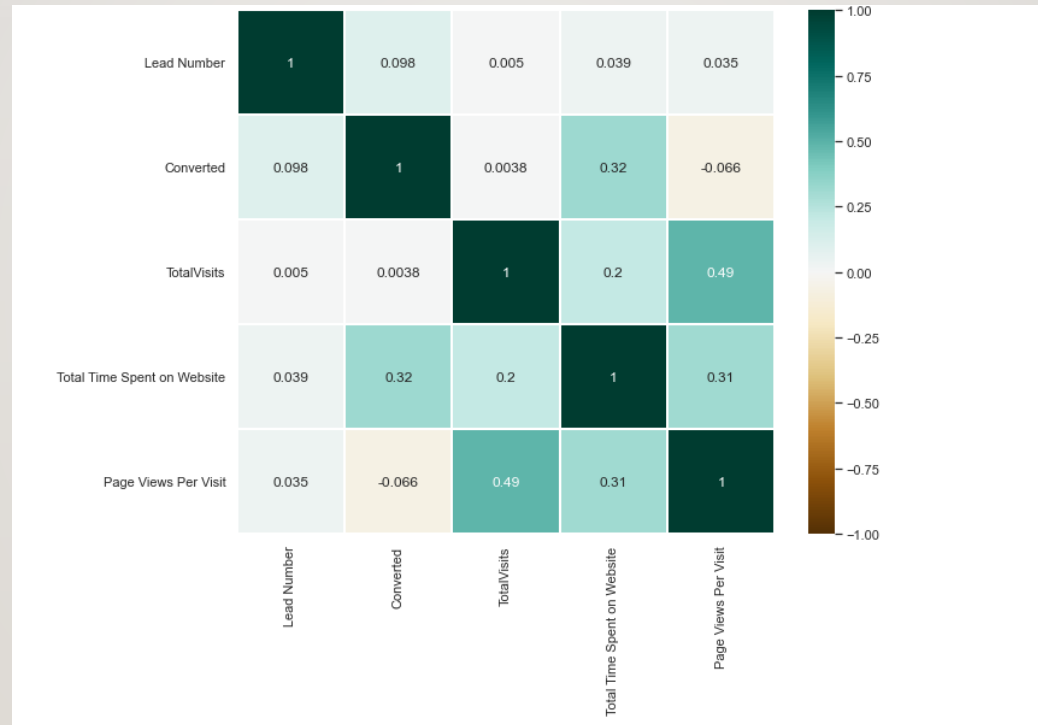
LAST LEAD ACTIVITY



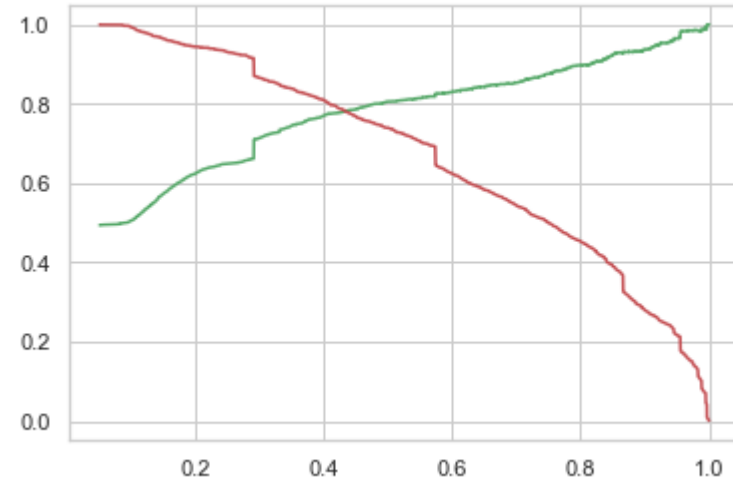
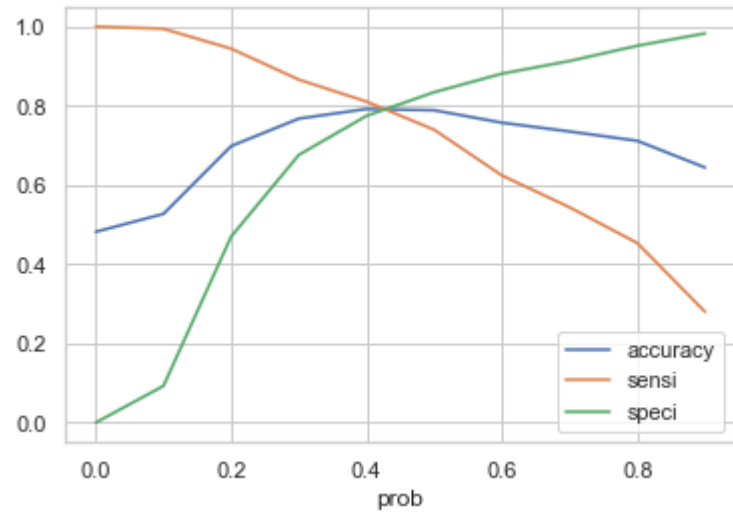
LAST WHAT IS YOUR OCCUPATION



CORRELATION



MODEL EVALUATION



OBSERVATION

-
- Train Data:
 - Accuracy : 80%
 - Sensitivity : 77%
 - Specificity : 80%
 - Test Data:
 - Accuracy : 80%
 - Sensitivity : 77%
 - Specificity : 80%
 - 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 rates are average (30-35%) for API and Landing Page submissions but notably lower for Lead Add forms and Lead imports. Therefore, focusing on leads from API and Landing Page submissions is crucial.
- Google/Direct traffic generates the most leads; highest conversion is from references and the Welingak website.
- Longer website engagement correlates with higher conversion likelihood.
- Common last activity is email opening, while SMS Sent has the highest conversion rate.
- The majority of leads are unemployed, but conversions are highest among working professionals.