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. 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 SOLVING APPROCH

Importing the data and inspecting the data frame.

Data preparation.

EDA.

Dummy variable creation.

Test-Train split.

Feature scaling.

Correlations.

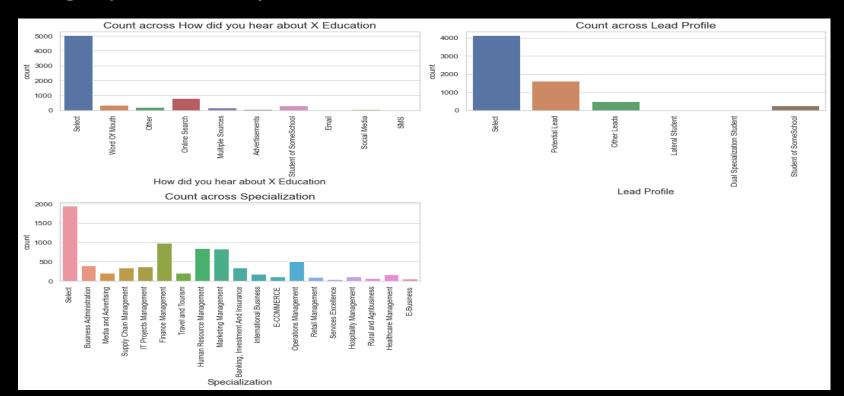
Model Building (RFE Rsquared VIF and pvalues).

Model Evaluation.

Making predictions on test set.

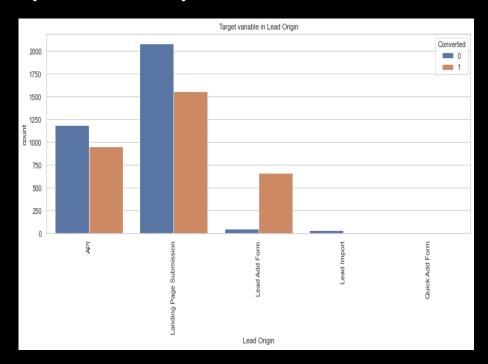
EDA — DATA CLEANING

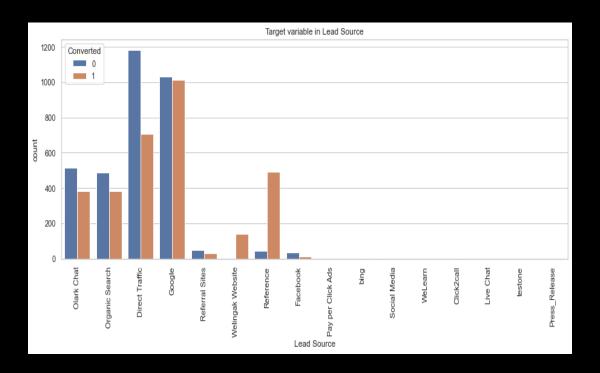
- There are a few columns in which there is a level called 'Select' which is taking care.
- Leads from HR, Finance & Marketing management specializations are high probability to convert



Lead Source & Lead origin

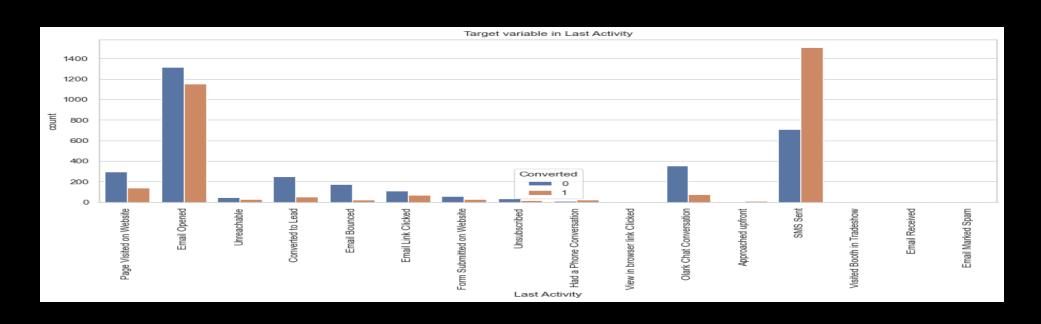
 In lead source the leads through google & direct traffic high probability to convert





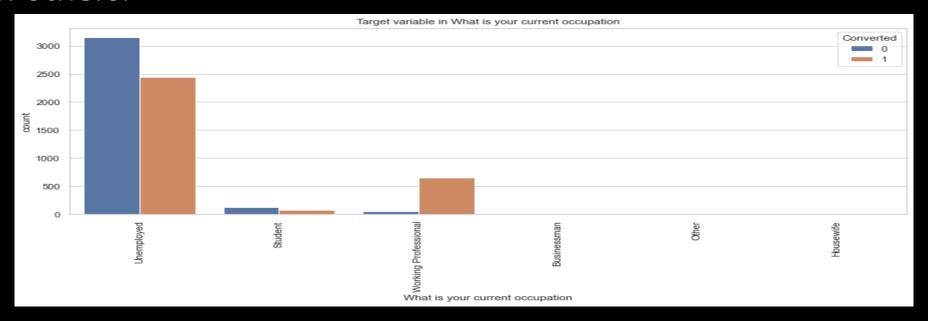
LAST LEAD ACTIVITY

 Leads which are opening email have high probability to convert, Same as Sending SMS will also benefit.



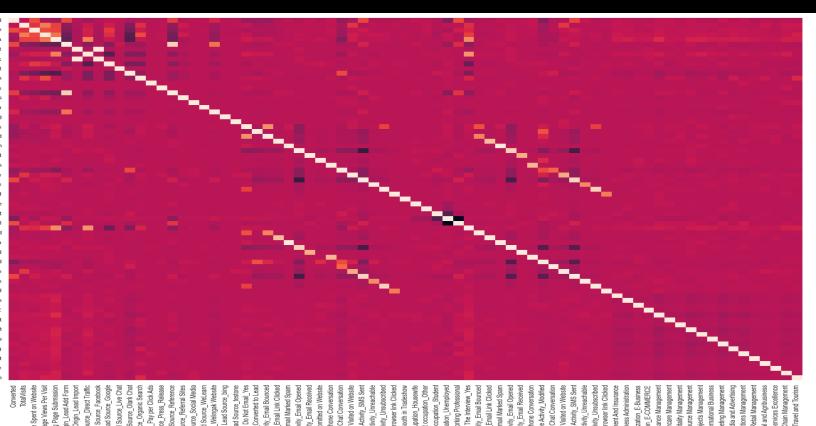
LAST WHAT IS YOUR OCCUPATION

• Leads which are Unemployed are more interested to join the course than others.



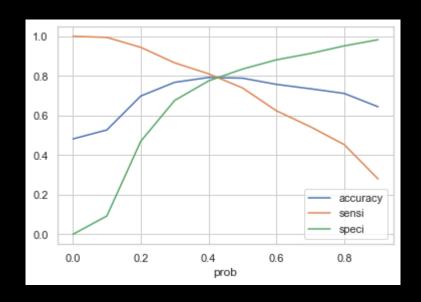
CORRELATION

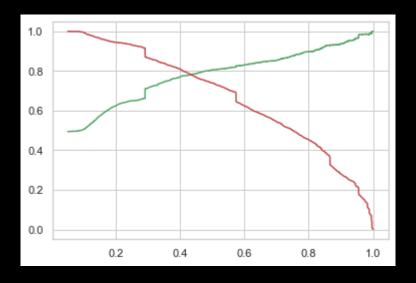
Total Time Spent on Website Lead Origin_Lead Import Lead Source_Facebook Lead Source_Live Chat Lead Source_Organic Search Lead Source Press Release Lead Source_Referral Sites Lead Source_WeLearn Lead Source_bing Do Not Email_Yes Last Activity_Email Bounced Last Activity_Email Marked Spam Last Activity_Email Received Last Activity_Had a Phone Conversation Last Activity_Page Visited on Website Last Activity_Unreachable Last Activity_View in browser link Clicked What is your current occupation_Housewife What is your current occupation_Student What is your current occupation_Working Professional Last Notable Activity_Email Bounced Last Notable Activity_Email Marked Spam Last Notable Activity_Email Received Last Notable Activity_Modified Last Notable Activity_Page Visited on Website Last Notable Activity_Unreachable Last Notable Activity_View in browser link Clicked Specialization_Business Administration Specialization_E-COMMERCE Specialization_Healthcare Management Specialization_Human Resource Management Specialization_Services Excellence Specialization_Travel and Tourism



ROC CURVE

0.42 is the tradeoff between Precision and Recall - Thus we can safely choose to consider any Prospect Lead with Conversion Probability higher than 42 % to be a hot Lead





CONCLUSION

- We see that the conversion rate is 30-35% (close to average) for API and Landing page submission. But very low for Lead Add form and Lead import. Therefore we can intervene that we need to focus more on the leads originated from API and Landing page submission.
- We see max number of leads are generated by google / direct traffic.
 Max conversion ratio is by reference and welingak website.
- Leads who spent more time on website, more likely to convert.
- Most common last activity is email opened. highest rate = SMS Sent.
 Max are unemployed. Max conversion with working professional.