## Lead Score Case Study



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## PROBLEM STATEMENT



- X Education(an education company) sells online courses to industry professionals. People who are interested in the courses land on their website and browse for courses
- When they fill up form with their email id or phone number, they are said to be a lead. The company also gets leads through past referrals.
- On acquired leads, employees from the sales team start making calls, writing emails, etc. Through this process, some of the leads get converted. The typical lead conversion rate at X education is around 30%.
- For more efficiency, the company wishes to identify the most potential leads, known as 'Hot 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



- -X education wants to know hot leads
- -Need to build model to identify most promising leads with lead conversion rate of 80% ot more
- -Deployment of model



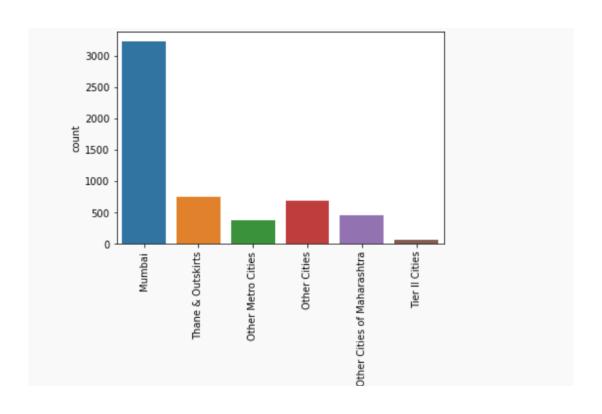


## Methodology

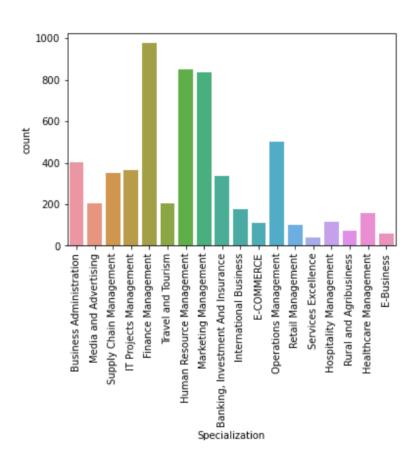
- Data cleaning and data manipulation
- check and handle duplicate data
- Check and handle NA values and missing values.
- Drop columns, if it contains large amount of missing values and not useful for the analysis.
- Imputation of the values, if necessary.
- Check and handle outliers in data.

## Analysis

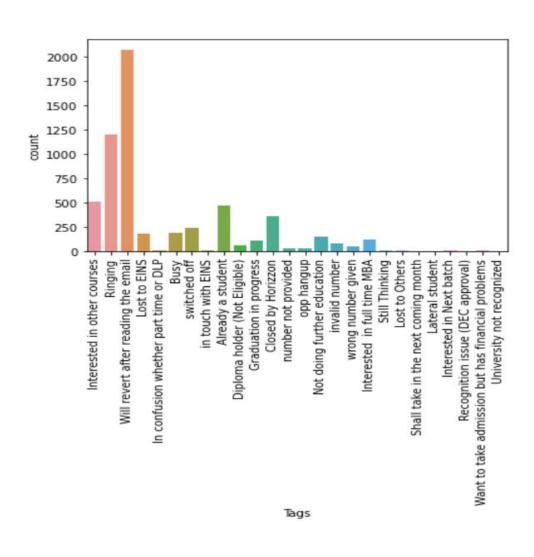
## For cities



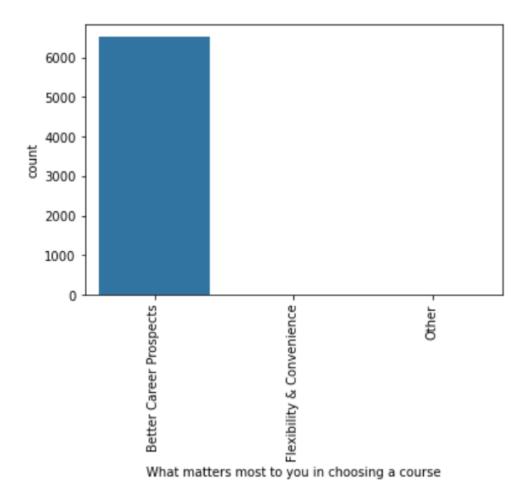
## Specialization



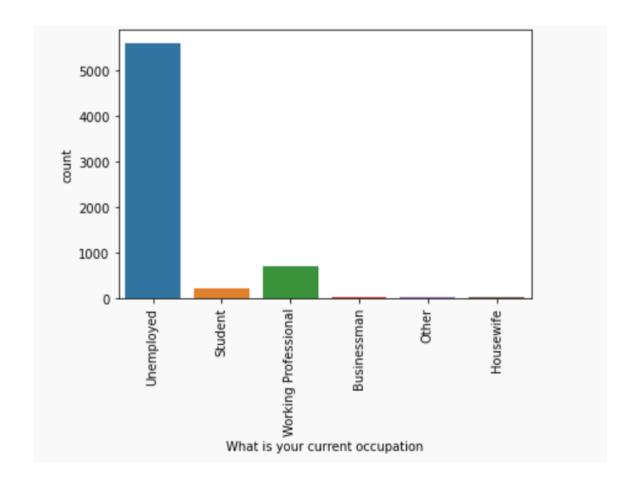
## Tags



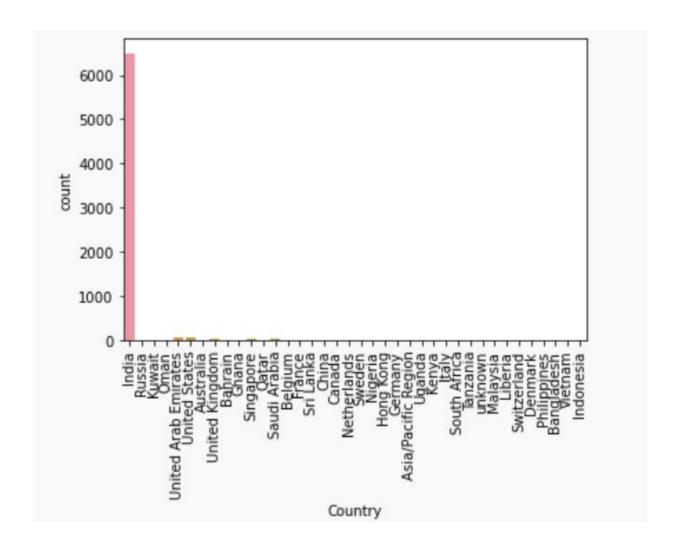
### What matters



## Current Occupation

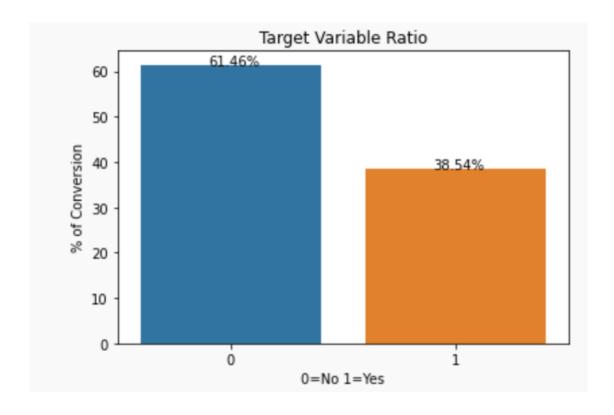


# Checking country

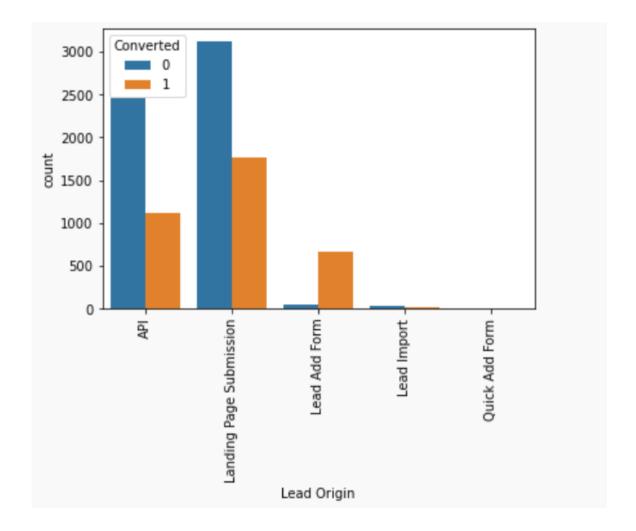


## Data visualization

# Converted data



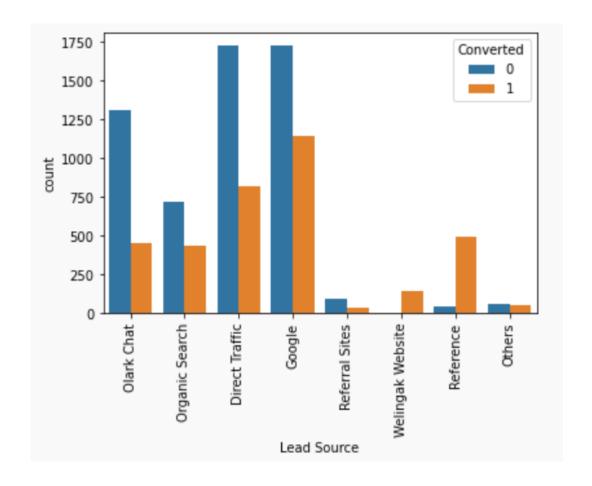
## Lead Origin



#### Inference from Lead Origin

- API and Landing Page Submission have around 35-40% conversion rate but count of lead originated from them are considerable.
- Lead Add Form has more than 90% conversion rate but count of lead are not very high.
- Lead Import and Quick Add From are very less in count.

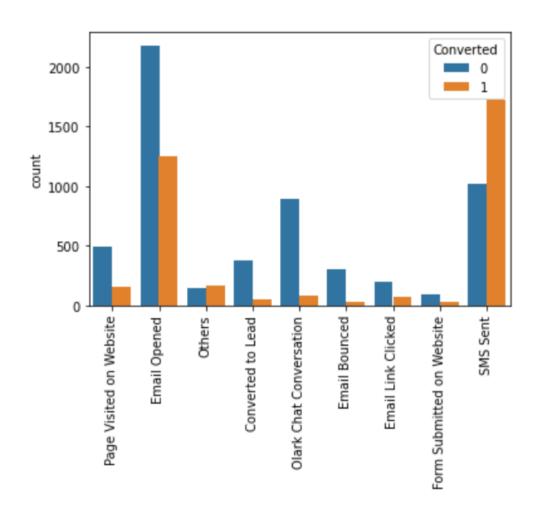
### Lead Source



#### Inference from Lead Source

- Direct Traffic and Google are generating high number of leads; should be focused for their conversion
- Welingak and Reference are having more conversion rate hence should be focused to generate more leads
- leads from Olark Chat and Organic Search should be focused for conversion

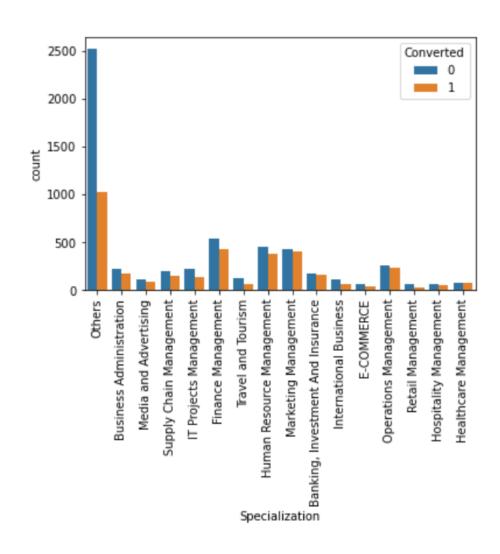
### Last Activity



#### Inference from Last Activity

- Most of the leads have
  Email Opened and SMS
  Sent. More focus should be on leads opening email.
- rate for SMS sent is very high and hence they should be targeted for lead conversion

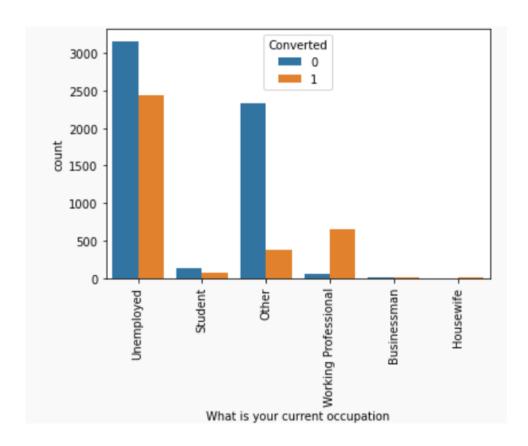
## Specialization



## Inference from Specialization

- focus should be on those various specializations with less leads but high conversion rate.
- Most of the leads are from 'Others'(Not specified) specialization but the conversion rate is poor

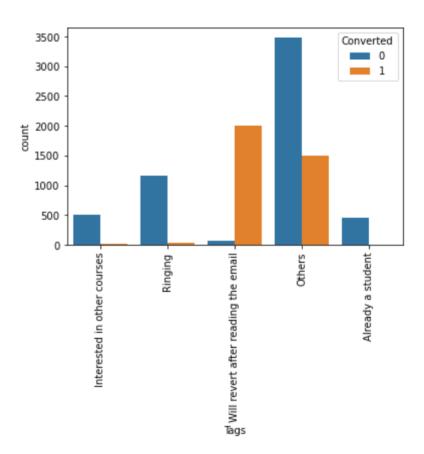
# Current occupation



Inference from What is your current occupation

- Working prefessionals have high conversion. focus should be on them for more leads
- Most of the leads are from Unemployed section, foucs should be increasing conversion from them

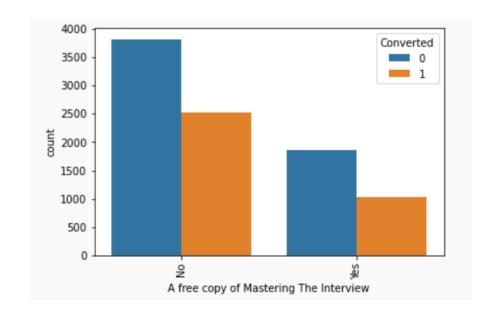
### Tags



#### Inference from Tags

- 'Will Revert after reading the email' have high conversion. focus should be on them for more leads
- Most of the leads are from 'Others'(Unspecified) section, foucs should be increasing conversion from them

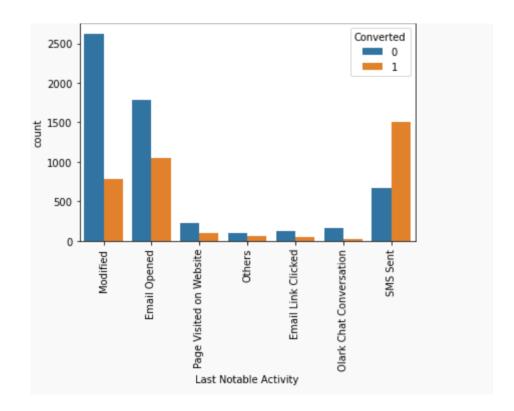
# Mastering the Interview



Inference from A free copy of Mastering The Interview

 More leads are from those who do not ask for free copy of Mastering Interviews. Can be focused for conversion

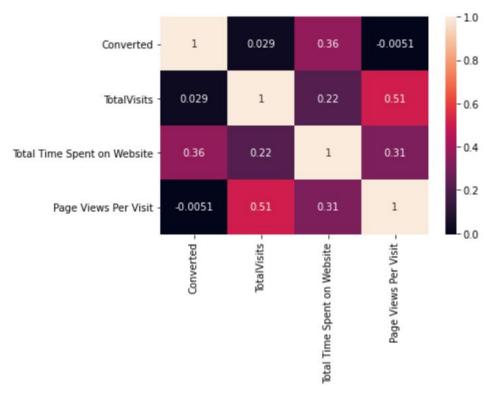
## Last Notable Activity



#### Inference from Last Notable Activity

- More leads are from those who have modified their account or opened email. focus should be on their conversion
- SMS sent have high converison

### Heat map



#### Inference from above heat map

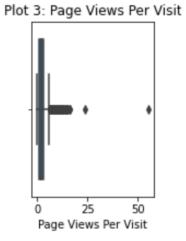
- Strong correlation between Total Visits and Page Views Per Visits
- Converted has good correlation with Total time spent on Website

## Check outliers

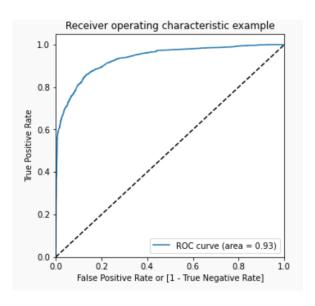


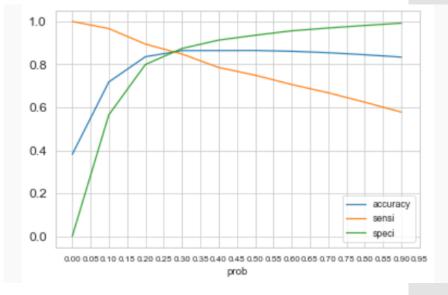
Plot 2: Total Time Spent on Website

Total Time Spent on Website

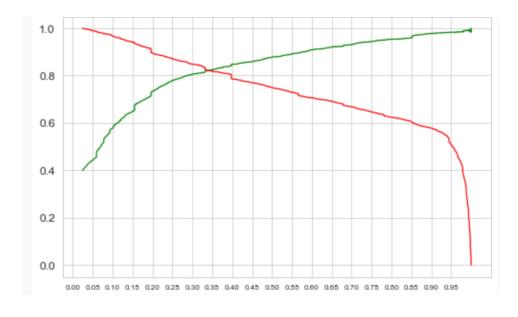


### ROC Curve





## Model Evaluation





## Model Analysis



Analysis	Percentage
Sensitivity of our logistic regression model:	80%
Specificity of our logistic regression model:	81%
Overall accuracy on Test set :	80.34%



It was found out that the variables that mattered the most in the potential buyers are :

- -The Total Time Spent on Website.
- -Total number of Visits.
- -When The Lead source was :a. Olarkchat b. Wellingak Website
- -When the Last Activity was :a. SMS b. OlarkChat Conversation
- -When the lead origin is Lead add Form.

When the current occupation was: Working Professionals. Student. Unemployed. Other

Keeping The above mentioned points in mind the X education can increase all the potential buyers to change their mind and buy their courses.

## Conclusion