Lead Scoring Assignment

A Case Study

Problem Statement:

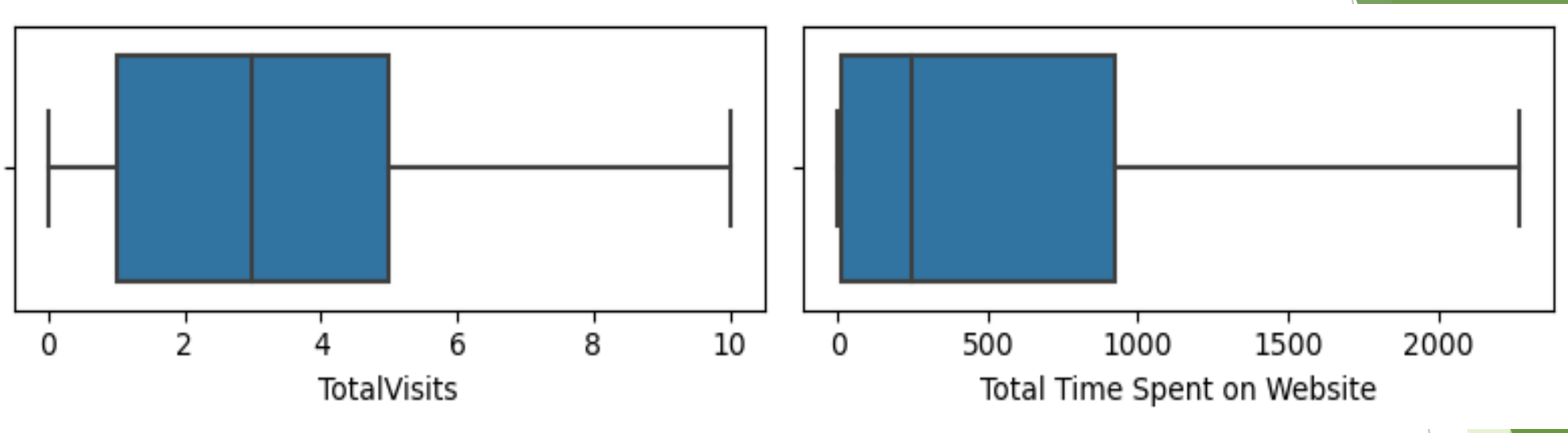
An education company named X Education sells online courses to industry professionals. On any given day, many professionals who are interested in the courses land on their website and browse for courses.

The company markets its courses on several websites and search engines like Google. Once these people land on the website, they might browse the courses or fill up a form for the course or watch some videos. When these people fill up a form providing their email address or phone number, they are classified to be a lead. Moreover, the company also gets leads through past referrals. Through this process, some of the leads get converted while most do not. The typical lead conversion rate at X education is around 30%. Although X Education gets a lot of leads, its lead conversion rate is very poor.

X Education has appointed you to help them select the most promising leads, i.e. the leads that are most likely to convert into paying customers. The company requires you to build a model wherein you need to assign a lead score to each of the leads such that the customers with a higher lead score have a higher conversion chance and the customers with a lower lead score have a lower conversion chance. The CEO, in particular, has given a ballpark of the target lead conversion rate to be around 80%.

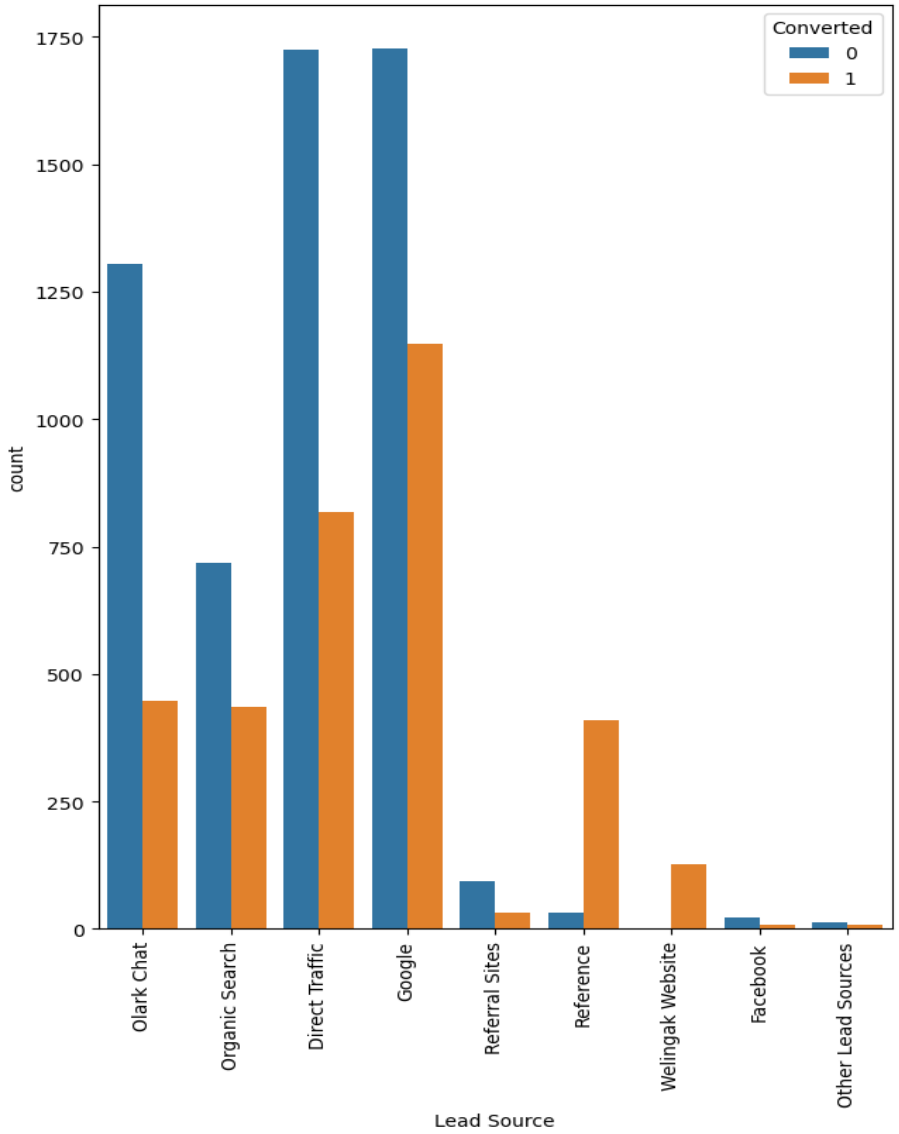
A BRIEF APPROACH METHOD:

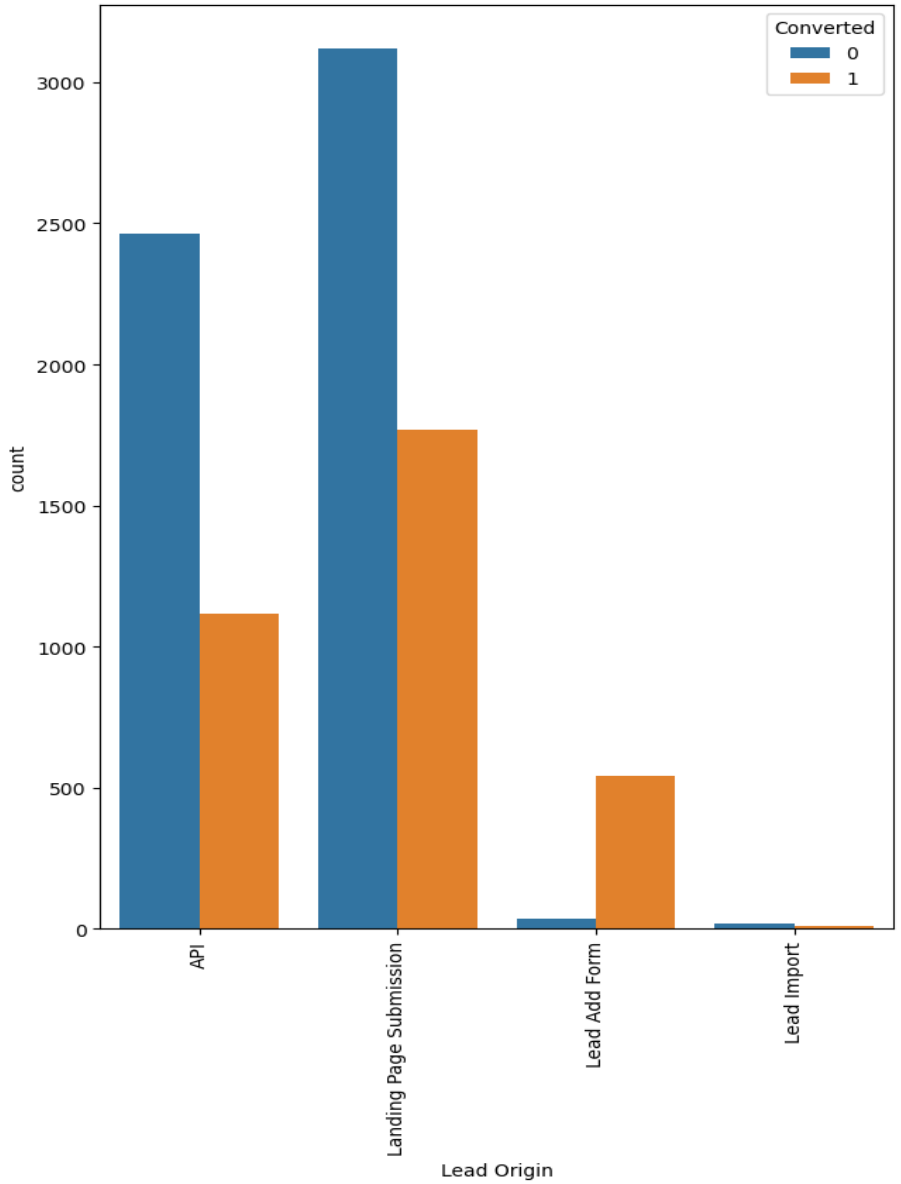
- Import Data, Inspect the DataFrame
- Data Preparation (Handling of Null Values, Outliers etc.)
- Exploratory Data Analysis (Through Visualization)
- Model Building (Dummy creations, Train-Test set splitting, Feature Scaling etc.)
- Model Tuning (Feature Selections, VIF Inspection etc.)
- Model Evaluation (Sensitivity, Specificity and many others.)
- Finalization (ROC Curve, Precision-Recall Trade-off etc.)



OBSERVATION:

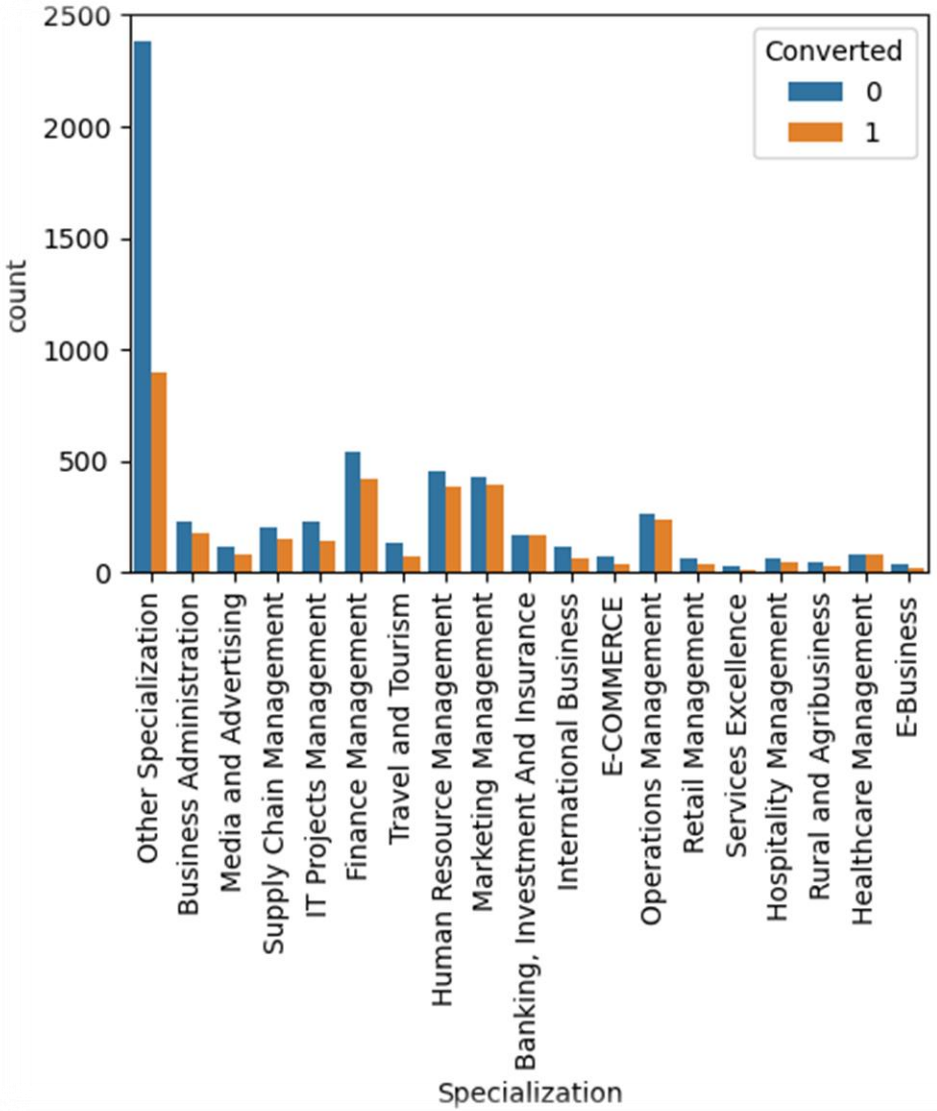
Users who spend more time on the platform are likely to get converted. Which means the platform should be made to look more appealing and resourceful for users.

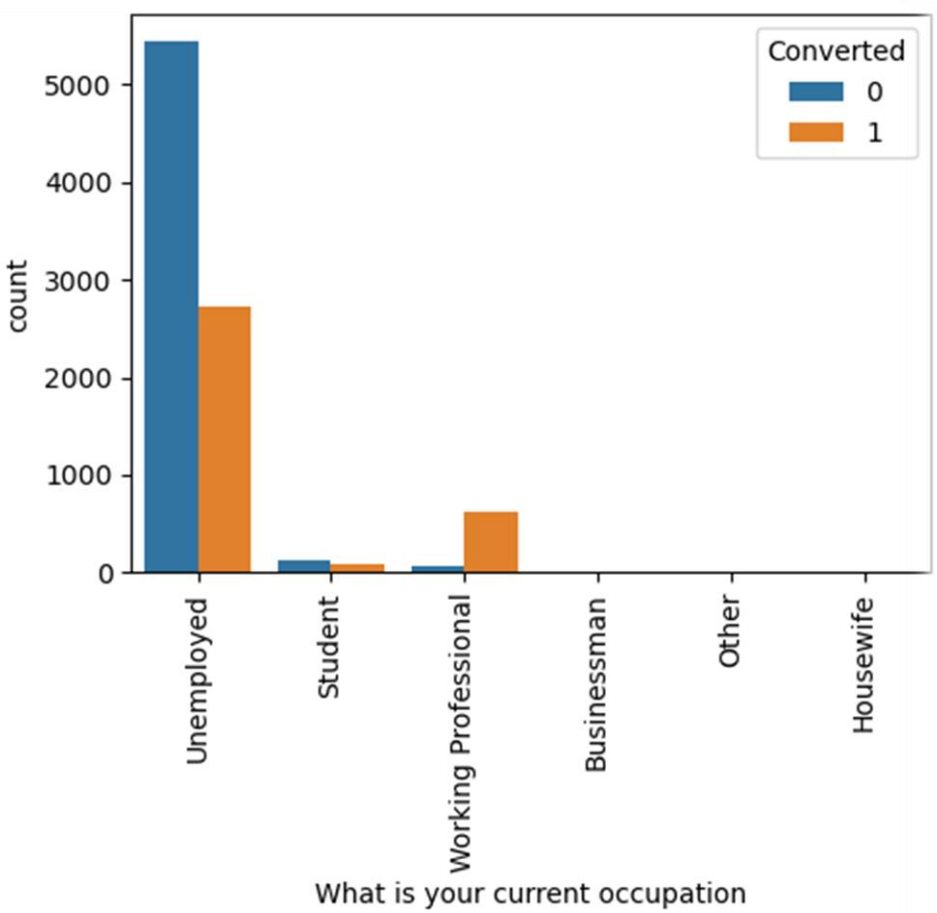

Converted
0
1
count
1750
1500
1250
1000
750
500
250
0
Olark Chat
Organic Search
Direct Traffic
Google
Referral Sites
Reference
Welingak Website
Facebook
Other Lead Sources
Lead Source


Converted
0
1
count
3000
2500
2000
1500
1000
500
0
API
Landing Page Submission
Lead Add Form
Lead Import
Lead Origin

OBSERVATION:

- **Landing Page Submission** and **API** have high count but moderate conversion rate.
- The same goes for **Google** and **Direct Traffic**.
- Focusing on **API** and **Landing Page Submission** might yield more conversions.


Converted
0
1
count
2500
2000
1500
1000
500
0
Other Specialization
Business Administration
Media and Advertising
Supply Chain Management
IT Projects Management
Finance Management
Travel and Tourism
Human Resource Management
Marketing Management
Banking, Investment And Insurance
International Business
E-COMMERCE
Operations Management
Retail Management
Services Excellence
Hospitality Management
Rural and Agribusiness
Healthcare Management
E-Business
Specialization


Converted
0
1
count
5000
4000
3000
2000
1000
0
Unemployed
Student
Working Professional
Businessman
Other
Housewife
What is your current occupation

OBSERVATION:

- Counts on **Other Specialization** are quite high but have moderate conversion rate.
- The same can be said about **Unemployed**.
- **Working Professionals** have high conversion rate.
- Reaching more **Working Professional** leads may lead to more conversions.

THE END