

# LEAD SCORING ASSIGNMENT

## SUMMARY

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## **OBJECTIVE:**

This analysis is done for X Education and to find ways to get more industry professionals to join their courses. The basic data provided gave us a lot of information about how the potential customer visit the site, the time they spend on the site, how they reached the site and the conversion rate

## **STEP BY STEP APPROACH:**

Below steps are followed

### ***Step 1: Cleaning Data***

The data was cleaned to remove null values.

### ***Step 2: EDA***

EDA was done to check the condition of data. It was found that a lot of elements in the categorical variables were irrelevant. Numeric values are good, no much of outliers seen

### ***Step 3: Dummy Variables***

Dummy variables were created and later removed. For numeric values, MinMaxScaler is used

### ***Step 4: Train-Test Split***

The split was done at 70% for train and 30% for test

### ***Step 5: Model Building***

RFE was done to attain the top 15 relevant variables. Rest of the variables are removed manually depending on the VIF values and p-value.

### ***Step 6: Model Evaluation***

A matrix was made and the optimum cutoff value was used to find accuracy, sensitivity and specificity which came to be around 81%

### ***Step 7: Prediction***

Prediction was made on test data frame with an optimum cutoff as 0.4 with accuracy, sensitivity and specificity of 80%

### ***Step 8: Precision – Recall***

This method is used to recheck and a cutoff of 0.41 was found with precision around 80.87% and recall around 81.88% on the test data frame

**FINDINGS:**

Variables that mattered the most are:

1. Total time spent on website
2. Total number of visits
3. When the lead source was:
  - a. Olark chat
  - b. Wellingak website
4. When the last activity was:
  - a. SMS
  - b. Olark chat conversation
5. When the lead origin is Lead add form
6. When the current occupation was:
  - a. Working professionals
  - b. Student
  - c. Unemployed
  - d. Other

**CONCLUSION:**

Based on above findings, X education can operate and increase their buyers through the potential leads