SUMMARY

X Education is an online education provider specializing in courses for industry professionals. The company promotes its offerings across various websites and search engines, including Google. Upon visiting the website, individuals have the opportunity to explore the courses and submit their information. Those who provide their email addresses or phone numbers are categorized as leads, and our sales team subsequently reaches out to them with the aim of converting them into customers.

The dataset initially included lead information, and it underwent preprocessing, cleaning, and preparation prior to model construction. To effectively reduce the dataset's dimensionality and identify significant features, Recursive Feature Elimination (RFE) was employed, resulting in the retention of 13 key columns. Following this, Logistic Regression models were developed, and a manual feature reduction process was implemented, which involved the removal of variables based on criteria such as Variance Inflation Factor (VIF) and p-values.

The three most influential variables affecting the lead conversion rate are as follows:

1. Lead Source_Welingak Website

2. Lead Add Form

3. Current Occupation_Working Professional

This valuable insight enables the sales team to strategically allocate their resources and concentrate their efforts on leads with a greater likelihood of conversion.

Based on the observations, several recommendations have been formulated:

- The features with a notably high conversion rate are as follows:
    1) Lead Source_Welingak Website.
    2) Lead Add Form.
    3) Current Occupation_Working Professional.
- Targeting "Working Professionals" is highly recommended due to their significantly higher likelihood of conversion and their stronger financial capacity to afford the service.
- Enhancing the frequency of media usage, such as Google ads and email campaigns, not only saves time but also boosts the conversion rate.
- Examining the behavior of customers who spend extended periods on the website can aid in enhancing the user experience and subsequently elevate the conversion rate.