Summary

Predicting Lead Conversion for a professional training course

Problem Statement:

Our goal is to identify factors that influences leads who get converted into potential leads, who join the course, so the sales team will focus more on potential leads and increase the lead conversion rate.

Analysis Approach:

1. **Data Cleaning:** We cleaned and organized the data, handling missing values,

outliers, and categorical variables. We also explored data distributions and

correlations.

2. **Feature Engineering:** We created new features based on existing ones, like

engagement ratios and visit/conversion ratios.

3. **Model Building and Selection:** We built two logistic regression models: one with

all features and one using RFE feature selection. We compared their

performance on unseen test data.

4. **Model Interpretation:** We analysed the coefficients of the final model to

understand the relative importance and direction of influence of each feature on

conversion.

Results:

● We identified key factors influencing conversion, including:

○ Website engagement: Higher total visits, longer time spent on website,

and more page views per visit led to increased conversion.

○ Specialization: Management specializations had higher conversion rates

compared to others.

○ Occupation: Unemployed users and students were more likely to convert.

○ City: Users from Mumbai and Maharashtra in general showed higher

conversion rates.

● The model with RFE-based feature selection achieved slightly better

performance compared to the model with all features. This suggests that

excluding irrelevant features can improve model accuracy and interpretability.

Visualizations:

● Histograms, boxplots, and heat maps were used to visualize data distributions,

outliers, and correlations.

● Feature importance charts were used to illustrate the relative influence of each

feature on conversion.

Conclusion:

This analysis successfully identified key factors influencing lead conversion for the

professional training course. By focusing on website engagement, targeting relevant

user segments (unemployed, students, management interests), and optimizing

marketing efforts in Mumbai and Maharashtra, we can potentially increase enrolment

rates and drive business growth.