



CONTENTS

- Overview
- Problem Statement
- Data Exploration
- Model Building
- Recommendations
- Conclusion



OVERVIEW

- The goal is to assist X Education, in improving its lead conversion rate by building a
 predictive model to identify potential leads.
- The dataset provided contained various attributes related to leads, including lead source, total visits, last activity, and conversion status.
- Our task is to develop a logistic regression model to assign lead scores and optimize the lead conversion process.

PROBLEM STATEMENT

Problem Statement: Maximizing Lead Conversion

- 1. Challenges Faced X Education encounters inefficiencies in lead conversion despite a steady influx of leads. With only a 30% conversion rate, there's a pressing need to enhance the process.
- 2. Objective Our goal is to develop a predictive model that assigns lead scores, identifying hot leads with a higher likelihood of conversion. This targeted approach aims to boost the conversion rate to 80%.
- 3. Dataset Overview We possess a dataset of 9000 leads, comprising various attributes such as lead source, website engagement, and past conversions. Through this dataset, we seek insights to refine our lead prioritization strategy.



4. Approach - Leveraging logistic regression, we aim to assign lead scores between 0 and 100 to prioritize potential leads. Additionally, our model should adapt to future requirements, ensuring scalability and flexibility.

5. Expected Outcomes - By implementing an efficient lead scoring system, X Education anticipates increased conversion rates, optimized resource allocation, and enhanced customer acquisition strateg







DATA EXPLORATION

Understanding the Dataset: The dataset contains 9240 entries and 37 features, offering a comprehensive view of our leads' interactions and characteristics.

Peek into the Data: Through summary statistics and visualization, we'll explore key variables like lead sources and website engagement to understand our leads' behavior and preferences.

Visualization:
Visual aids such as histograms and scatter plots will guide us, revealing

revealing patterns and correlations crucial for effective decision-making.

MODEL BUILDING

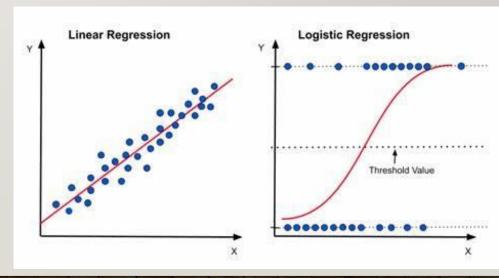
- Two models were trained and evaluated:
- 1. Linear Regression and
- 2. Logistic Regression.

- In the case of Linear Regression, the Ridge regression variant was utilized due to its ability to handle multicollinearity.
- The mean squared error (MSE) and R-squared were used as evaluation metrics, resulting in an MSE of 0.0986 and an R-squared of 0.5896.

MODEL BUILDING

• For Logistic Regression, the coefficients of the model were extracted and analysed to identify the top three variables contributing most towards lead conversion probability.

- The top three variables were identified as follows:
- 1. Total Time Spent on Website
- 2. Lead Number
- 3. Tags indicating the lead will revert after reading the email



RECOMMENDATIONS

- Based on the analysis, we recommend the following:
- a) Improve Lead Scoring
- b) Use Automated Emails and Ads
- c) Share Helpful Content
- d) Be Active on Social Media
- e) Analyse Data to Improve
- f) Work with Other(like influencers)
- With these changes, X Education can keep sales going strong without making too many phone calls when they're ahead of schedule.

CONCLUSION

• In conclusion, the analysis demonstrates the importance of various factors in predicting lead conversion probability for X Education.

By implementing the recommendations outlined in this report, X Education can enhance its
marketing and sales strategies, ultimately leading to increased customer acquisition and
revenue generation.

