

1. A 500-word summary report explaining how you approached the assignment and the lessons you learnt.

Ans:

Approach to the Lead Score Assignment:

The lead score assignment was approached systematically to ensure accuracy, relevance, and applicability in the context of evaluating potential leads for a business. Here's a detailed breakdown of the approach:

1. **Understanding The Objective.**
Before diving into the task, it was crucial to grasp the core objective behind lead scoring. This involved understanding the business's unique requirements, the target audience, and the desired outcomes.
2. **Data reading and Understanding.**
It is most important to understand the data before further processing.
3. **Data Cleaning and Preparation.**
Raw data often contains inconsistencies and missing values. Therefore, the next step involved pre-processing the data. This included handling missing values, removing duplicates, normalizing data where necessary, and encoding categorical variables.
4. **Feature Selection:**
Not all collected data points are equally important for lead scoring. Through exploratory data analysis and statistical methods, the most influential features that strongly correlated with lead conversion were selected for the model.
5. **Model Selection:**
Logistic Regression algorithm was considered and tested to determine the most suitable model for lead scoring.
6. **Model Training and Validation:**
The selected model was trained on a subset of the data and validated using a separate dataset to assess its performance.
7. **Evaluation and Deployment:**
The final model was evaluated using appropriate evaluation metrics such as accuracy, precision, recall.

Lessons Learned:

1. **Importance of Data Quality:** The quality of data significantly impacts the performance of the lead scoring model. Ensuring data accuracy, consistency, and relevance is paramount.

2. **Feature Engineering is Crucial:** The success of the model largely depends on the selection and engineering of relevant features. A deep understanding of the business domain and customer behaviour is essential for effective feature engineering.