**Assignment 10**

**Building a Logistic Regression Model for Titanic Survival Prediction**

1. Load the dataset (full.csv) into a Pandas DataFrame and display the first few rows.
2. Perform exploratory data analysis (EDA) to understand the dataset. Identify missing values and summarize key statistics.
3. Handle missing values appropriately (e.g., imputation or removal). Explain your approach.
4. Convert categorical variables (e.g., Sex, Embarked) into numerical representations.
5. Drop irrelevant features that do not contribute to survival prediction (e.g., PassengerId, Name, Ticket). Justify your selection.
6. Select the most relevant features for predicting survival and explain your choice.
7. Check the unique values of the features like sex, embark, etc.
8. Split the dataset into training (80%) and testing (20%) sets.
9. Implement a Logistic Regression model using Scikit-Learn and train it using the training data.
10. Evaluate the model using accuracy,
11. Generate a confusion matrix and analyze the classification performance.
12. Check the unseen record for survived or not survived .