PMCA507P – Machine Learning Lab
Project Task
(Answer any one question)

General Instructions:
1. Solve any one of the following problems as a team. Team members should not be more than three.
2. All members should submit the documentation about the project in VTOP as a document file (.doc).
3. Flow chart, implementation code, output plots, and application screen shots should be included in the documentation.
4. Duplicate submissions will be considered absent for the assessment.
5. Don't remove any data from the dataset. Only normalization and preprocessing are allowed.
6. Use 20 percent of the samples from the dataset for testing purposes.

Q1: Predict the medical expenses for the patents based on their health conditions using the regression technique.
- Dataset: hospital_data.xlsx
- Target Variable: Total cost to hospital
- Constraint: Use any regression technique for prediction.
- Performance Measure: Plot the Sum Squared Regression (SSR), Mean Squared Error (MSE), and R^2 values of the regression model on test data.
- Deploy the model as a mobile or web application. Create a form for collect the user inputs.

Q2: Classify the customer's credit rating (good or bad) based on their personal and bank account details.
- Dataset: credit_rating.xlsx
- Target variable: Credit classification
- Constrain: Use any one of the following classification techniques: Logistic Regression, Decision Tree, Naïve Bayes, Support Vector Machine, and Multi-Layer Perceptron
- Performance Measure: Plot the confusion matrix, accuracy, and F1 score of the classification technique on test data.
- Deploy the model as a mobile or web application. Create a form for collect the user inputs.