ML Coding Activity

1. Write a program for **Linear Regression**. Choose a proper dataset and train a Linear Regression model. Calculate MSE, R-squared on Predicted Values. Plot the Model. Make use of appropriate Python libraries.
   (1,6,11,16,21,26,.....)
2. Write a program for **Multiple Regression**. Choose a proper dataset and train a Multiple Regression model. Calculate MSE, R-squared on Predicted Values. Make use of appropriate Python libraries.
   (2,7,12,17,.....)
3. Write a program for **Logistic Regression**. Choose a proper dataset and train a Logistic Regression model. Calculate values using proper metrics suitable for Logistic Regression. Make use of appropriate Python libraries.
   (3,8,13,18,.....)
4. Write a program for the **Decision Tree for classification**. Choose a proper dataset and train the model. Calculate values using proper metrics suitable for the Decision Tree. Plot the tree. Make use of appropriate Python libraries.
   (4,9,14,19,.....)
5. Write a simple program to demonstrate which model among **Logistic Regression** and **Decision Tree** gets the better F1-score. (5,10,15,20,.....)

Reference Datasets

1. Plants dataset

Data Set Characteristics:
Attribute Information: sepal length, sepal width, petal length,petal width
class (Categories): Iris-Setosa, Iris-Versicolour, Iris-Virginica

2. The datasets consist of several medical predictor (independent) variables and one target (dependent) variable, Outcome. Independent variables include:
number of pregnancies
BMI
insulin level
Age
Glucose

3. The dataset consists of several variables: longitude, latitude, housing_median_age, total_rooms, total_bedrooms, population, households, median_income

And one output variable:
median_house_value