

Machine Learning Project Documentation

Project Title: Automobile Price Prediction using Linear Regression

1. Project Overview

Students are required to build a Machine Learning model using Linear Regression to predict the price of automobiles based on features such as engine size, mileage, horsepower, and weight.

2. Learning Outcomes

- Understand Regression Problems
- Perform Data Preprocessing
- Apply Linear Regression Algorithm
- Train and Test ML Models
- Make Predictions using trained models

3. Dataset Instructions

Students must download the Automobile Dataset provided by the instructor and use it for training and testing the Linear Regression model.

4. Project Tasks

- Import Required Libraries
- Load Dataset
- Perform Data Cleaning
- Feature Selection
- Split Dataset into Training and Testing
- Train Linear Regression Model
- Predict Output
- Evaluate Model Performance

5. Tools & Technologies

- Python
- Jupyter Notebook / Google Colab
- Pandas
- Numpy
- Scikit-learn

6. Submission Requirements

Students must submit the following:

- Python (.ipynb) File
- Dataset (.csv)
- Project Report (PDF)
- Model Output Screenshots

7. File Naming Convention

StudentName_LinearRegression_Project.zip