NEURAL NETWORKS EXERCISE

Use Multilayer Perceptron Classifier library in sklearn to develop the following model.

Car Classification Problem

The link to the dataset is https://archive.ics.uci.edu/ml/datasets/Car+Evaluation

1. Download the data folder and use any text reader such as notepad to open the file. Ensure that you convert the data to .csv datatype.
2. Read the description of the data to understand the role of each of the attributes.
3. Implement a multilayer perceptron for Car Classification Problem in Python.
4. You are given a multivariate classification data set, which contains various description for the car. Here are some features that you must include as you implement the overall steps of building a model.
    - Train a multilayer perceptron using the rectified linear unit function
    - Chose a stochastic gradient descent solver solver{‘lbfgs’, ‘sgd’, ‘adam’}, default=’adam’
    - Use an adaptive learning rate
    - learning_rate{‘constant’, ‘invscaling’, ‘adaptive’}, default=’constant’
    - Use shufflebool, default=True to shuffle data in each iterations
    - Use the score(X, y[, sample_weight]) function to get the score of the model
5. Evaluate the model
6. BONUS- standardize the data and use hyperparameter tuning to tune the parameters.