ReadMe

Instructions to compile and run the code:

- The code for evaluation of all classifiers is submitted in a jupyter notebook in the directory.
- To compile the code, open the notebook using jupyter notebook, then run all the cells.
- The objects for various classifiers have been created to represent the best parameter setting for this data set.
- More details on the parameter tuning in the Report file.
- The cell in the notebook, contains the Evaluation algorithm for the classifiers using K fold validation.
- The arrays: accuracy, precision and recall contains the average value of each measure respectively for each classifier.
- Lastly, the max of each, measure is shown along with max value and the classifier that gave best performance amongst all.

Dataset: Car Evaluation Dataset

Link: https://archive.ics.uci.edu/ml/datasets/car+evaluation

Link to data file: https://archive.ics.uci.edu/ml/machine-learning-databases/car/car.data

Packages/Libraries:

- numpy
- pandas
- sklearn, preprocessing
- sklearn.model_selection, train_test_split
- sklearn.tree, DecisionTreeClassifier
- sklearn.linear_model, Perceptron
- sklearn.neural_network, MLPClassifier
- sklearn.svm, LinearSVC
- sklearn.naive_bayes
- sklearn.linear_model, LogisticRegression
- sklearn.neighbors, KNeighborsClassifier
- sklearn.ensemble, BaggingClassifier

- sklearn.ensemble, RandomForestClassifier
- sklearn.ensemble, AdaBoostClassifier
- sklearn.ensemble, GradientBoostingClassifier
- sklearn.metrics, accuracy_score, precision_score, recall_score
- sklearn.model_selection, KFold