

#### **Assignment 4: Decision tree learning for car evaluation**

In this assignment, you will implement a decision-tree algorithm and apply it to car evaluation (please see the supplied dataset).

1. Implement the decision tree learning algorithm. You may program in C/C++, Java. Use the information gain criteria (as described in class and in your textbook) for attribute selection at each node.
2. Divide the data set randomly between training (80%) and testing (20%) sets. Use your algorithm to train a decision tree classifier from the training data and apply it on the test data. Run this experiment 20 times. Then calculate average test accuracy. Report the mean accuracy and standard deviation of accuracy.