Machine Learning: Foundations **Spring Semester, 1996/7**

Homework 5: May 21

Lecturer: Yishay Mansour

Homework number 5.

Programming assignment:
Use your implementation of the decision tree algorithm and add to it one of the pruning procedures learned in class (the simpler ones are Reduced Error Pruning and Pessimistic Pruning).

Try to add a parameter that would control the size of the trees generated. (On one extreme you should get a single leaf and on the other extreme the original tree.) Run it on various databases and try to answer the following.

1. Does pruning help?
2. Use your parameter to generate pruned trees of various sizes. Compare the accuracy of the different sizes.

The homework is due in two weeks