## **Report for Decision Tree Algorithm**

Information gain heuristic is used for selecting the next attribute.

## **Accuracies observed on Data set 1:**

Accuracy with test data: 75.85

Accuracy of pruned tree = 76.0 for L = 4 and K = 5

Accuracy with validation data: 76.0

Accuracy of pruned tree = 76.0 for L = 7 and K = 8

Accuracy of pruned tree = 75.9 for L = 2 and K = 3

Accuracy of pruned tree = 75.9 for L = 1 and K = 1

Accuracy of pruned tree = 75.9 for L = 1 and K = 9

Accuracy of pruned tree = 76.0 for L = 8 and K = 9

Accuracy of pruned tree = 75.9 for L = 1 and K = 5

Accuracy of pruned tree = 76.0 for L = 6 and K = 8

Accuracy of pruned tree = 75.9 for L = 1 and K = 4

Accuracy of pruned tree = 76.0 for L = 9 and K = 5

## **Accuracies observed on Dataset 2:**

Accuracy with test data: 72.33333333333334

Accuracy of pruned tree = 77.1666666666666 for L = 4 and K = 5

Accuracy with validation data: 77.166666666666666

Accuracy of pruned tree = 77.1666666666666 for L = 7 and K = 8

Accuracy of pruned tree = 77.1666666666666 for L = 4 and K = 9

Accuracy of pruned tree = 77.1666666666666 for L = 1 and K = 2

Accuracy of pruned tree = 77.1666666666666 for L = 6 and K = 4

Accuracy of pruned tree = 77.166666666666 for L = 7 and K = 3

Accuracy of pruned tree = 77.1666666666666 for L = 1 and K = 3

Accuracy of pruned tree = 77.1666666666666 for L = 4 and K = 9