-Decision Tree Report-

Name: Aditya Borde

Net Id: asb140930

A) Before Pruning:

On Data Set 1:

Information Gain Heuristic Accuracy = 75.85%

Variance Impurity Heuristic Accuracy = 76.65%
On Data Set 2:

Information Gain Heuristic Accuracy = 72.34%

Variance Impurity Heuristic Accuracy = 72.50%

B) After Pruning:

On Data Set 1:

Sr. No	Value of <L>	Value of <K>	Accuracy Using Information Gain (%)	Accuracy Using Variance impurity (%)
1	1000	10	76.55%	78.00%
2	1000	15	76.45%	77.20%
3	100	5	76.70%	77.80%
4	1500	15	76.80%	77.40%
5	500	10	76.80%	78.15%
6	500	5	76.65%	77.65%
7	600	25	76.60%	77.65%
8	200	20	76.60%	77.55%
9	400	50	76.75%	77.10%
10	100	100	75.85%	76.90%

On Data Set 2:

Sr. No	Value of <L>	Value of <K>	Accuracy Using Information Gain (%)	Accuracy Using Variance impurity (%)
1	1000	10	73.17%	74.84%
2	1000	15	74.00%	75.17%
3	100	5	73.34%	74.00%
4	1500	15	74.50%	74.84%
5	500	10	74.34%	75.50%
6	500	5	73.67%	74.34%
7	600	25	73.00%	74.50%
8	200	20	73.67%	74.50%
9	400	50	73.17%	74.17%
10	100	100	72.50%	73.00%

* Values have been taken after running the pruning algorithm 2-3 times on particular <L><K> combination and written maximum amongst the observations.