Report

# Accuracies:

## On Data set 1:

Accuracy of the tree constructed using information gain: 76.0%

Accuracy of the tree constructed using impurity gain: 78.0%

## On Data set2:

Accuracy of the tree constructed using information gain: 72.33333333333333%

Accuracy of the tree constructed using impurity gain: 69.0%

# Accuracies after pruning for 10 set of values for L and K:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Information Gain | | Impurity | |
| L | K | data set1 | data set2 | data set1 | data set2 |
| 50 | 50 | 76.05% | 74.00% | 80.30% | 69.33% |
| 75 | 75 | 78.50% | 76.50% | 80.35% | 69.50% |
| 100 | 100 | 77.05% | 76.50% | 79.05% | 69.83% |
| 125 | 125 | 77.75% | 73.00% | 79.05% | 69.50% |
| 150 | 150 | 76.35% | 74.50% | 79.25% | 69.83% |
| 200 | 200 | 76.00% | 74.67% | 80.15% | 70.17% |
| 300 | 300 | 76.50% | 73.50% | 79.90% | 69.00% |
| 400 | 400 | 78.20% | 73.00% | 79.00% | 69.67% |
| 500 | 500 | 76.55% | 74.67% | 80.00% | 69.50% |
| 600 | 600 | 78.15% | 73.50% | 78.95% | 69.33% |