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ACCURACY DETAILS

Observations:

Before Pruning:

DATASET 1

- Decision Tree based on information Gain Heuristics:
Accuracy = 74.65%
- Decision Tree based on Variance Impurity Heuristics:
Accuracy = 77.15%

DATASET 2

- Decision Tree based on information Gain Heuristics:
Accuracy = 72.50%
- Decision Tree based on Variance Impurity Heuristics:
Accuracy = 72.67%

| | Information Gain (Accuracy %) | Variance Impurity (Accuracy %) |
|------------------|-------------------------------|--------------------------------|
| DataSet 1 | 74.65 | 77.15 |
| DataSet2 | 72.50 | 72.67 |

After Pruning

DataSet 1

| L | K | Information Gain (Accuracy %) | Variance Impurity (Accuracy %) |
|----|----|----------------------------------|-----------------------------------|
| 4 | 8 | 74.65 | 77.15 |
| 5 | 10 | 75.15 | 77.15 |
| 6 | 12 | 74.65 | 78.00 |
| 7 | 14 | 74.60 | 77.45 |
| 8 | 16 | 76.30 | 77.70 |
| 9 | 6 | 74.80 | 77.70 |
| 10 | 5 | 76.60 | 77.85 |
| 12 | 6 | 76.75 | 76.85 |
| 14 | 7 | 75.45 | 76.40 |
| 16 | 8 | 77.15 | 78.40 |

DataSet 2

| L | K | Information Gain (Accuracy %) | Variance Impurity (Accuracy %) |
|----|----|----------------------------------|-----------------------------------|
| 4 | 8 | 76.33 | 73.17 |
| 5 | 10 | 74.00 | 73.67 |
| 6 | 12 | 72.83 | 72.83 |
| 7 | 14 | 74.83 | 73.33 |
| 8 | 16 | 72.50 | 72.67 |
| 9 | 6 | 73.83 | 73.33 |
| 10 | 5 | 74.00 | 75.67 |
| 12 | 6 | 72.50 | 73.33 |
| 14 | 7 | 77.83 | 77.00 |
| 16 | 8 | 75.00 | 73.33 |