(NOTE: KAGGLE HAS BEEN USED TO DOWNLOAD BOTH THE DATASETS, i.e Heart & Diabetes)

Table 1: Training and Testing Accuracy

Dataset	Training Accuracy	Testing Accuracy
Dataset 1	0.98	0.82
Dataset 2	0.75	0.74

Table 2: Accuracy Comparison for Gini and Entropy (With and Without Pruning)

Dataset	Gini (Without Pruning)	Gini (With Pruning)	Entropy (Without Pruning)	Entropy (With Pruning)
Dataset 1	0.98	0.66	0.99	0.80
Dataset 2	0.75	0.74	0.74	0.72

Graph Explanation

For **Dataset 1**, following trends are observed:

- **Gini (Without Pruning)** has a high training accuracy of 0.98 but experiences a drop when pruning is applied.
- **Entropy (Without Pruning)** offers a near-perfect accuracy of 0.99, while pruning decreases accuracy to 0.80.

For **Dataset 2**, the results are more stable across all methods:

- The training and testing accuracies hover around 0.75, with a slight drop observed when using entropy with pruning.

Actual vs Predicted Results for Entropy with Pruning

- **Dataset 1**: Correctly predicted 80 out of 100 test samples.
- **Dataset 2**: Correctly predicted 74 out of 100 test samples.