

## Lab-5 1BM22CS231

```
Optimal k value for Iris dataset: 1
Iris Dataset Accuracy: 1.0
Confusion Matrix for Iris:
[[10  0  0]
 [ 0  9  0]
 [ 0  0 11]]
Classification Report for Iris:
              precision    recall  f1-score   support

   setosa         1.00        1.00        1.00         10
  versicolor       1.00        1.00        1.00          9
   virginica       1.00        1.00        1.00         11

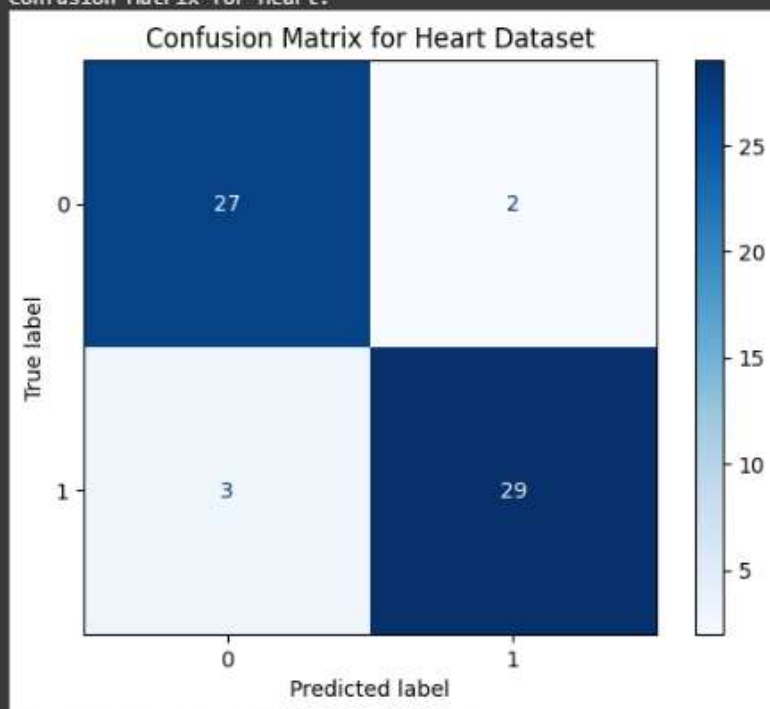
   accuracy         1.00        1.00        1.00         30
  macro avg         1.00        1.00        1.00         30
 weighted avg         1.00        1.00        1.00         30

Diabetes Dataset Accuracy: 0.6818181818181818
Confusion Matrix for Diabetes:
[[78 21]
 [28 27]]
Classification Report for Diabetes:
              precision    recall  f1-score   support

           0         0.74        0.79        0.76         99
           1         0.56        0.49        0.52         55

   accuracy         0.68        0.68        0.68        154
  macro avg         0.65        0.64        0.64        154
 weighted avg         0.67        0.68        0.68        154
```

Optimal k value for Heart dataset: 7  
Heart Dataset Accuracy: 0.9180327868852459  
Confusion Matrix for Heart:



Classification Report for Heart Dataset:

	precision	recall	f1-score	support
0	0.90	0.93	0.92	29
1	0.94	0.91	0.92	32
accuracy			0.92	61
macro avg	0.92	0.92	0.92	61
weighted avg	0.92	0.92	0.92	61