

# Neural Network

Task 2 report

Team 31

## Team members

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# Results :

## First trial:

Activation Function	Test Accuracy	LR	Epochs	#Layers	#HiddenNodes
Sigmoid	100	0.1	10	3	3,5,10
Tanh	100	0.1	10	3	3,5,10

Neural Network GUI

Learning Rate: 0.1

Number of Epochs: 10

Number of Hidden Layers: 3

Number of Neurons (comma-separated): 3,5,10

Select Your Activation Function: sigmoid

☐ Add Bias

**Train Neural Network**

Neural Net...

Test Accuracy: 100.00%

Neural Network GUI

Learning Rate: 0.1

Number of Epochs: 10

Number of Hidden Layers: 3

Number of Neurons (comma-separated): 3,5,10

Select Your Activation Function: tanh

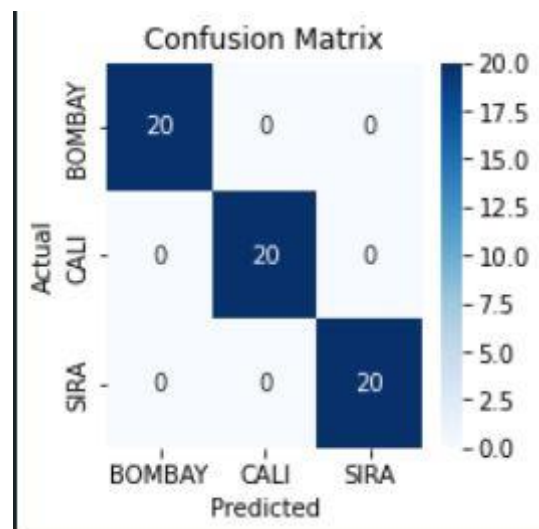
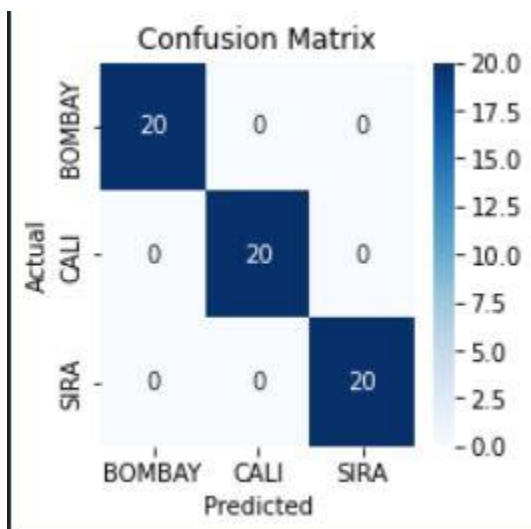
☐ Add Bias

**Train Neural Network**

Neural Net...

Test Accuracy: 100.00%

## Confusion matrix



## Second trial:

Activation Function	Test Accuracy	LR	Epochs	#Layers	#HiddenNodes
Sigmoid	100	0.01	1000	2	3,4
Tanh	100	0.001	5000	1	5

Neural Network GUI

Learning Rate: 0.01

Number of Epochs: 1000

Number of Hidden Layers: 2

Number of Neurons (comma-separated): 3,4

Select Your Activation Function: sigmoid

☐ Add Bias

Train Neural Network

Test Accuracy: 100.00%

Neural Network GUI

Learning Rate: 0.001

Number of Epochs: 5000

Number of Hidden Layers: 1

Number of Neurons (comma-separated): 5

Select Your Activation Function: tanh

☐ Add Bias

Train Neural Network

Test Accuracy: 100.00%

## Confusion matrix

