

Python 3.9.7 (default, Sep 16 2021, 16:59:28) [MSC v.1916 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 7.29.0 -- An enhanced Interactive Python.

Restarting kernel...

```
In [1]: 'E:/Plan B/Amrita Vishwa Vidyapeetham/Subject Materials/Semester VI/
19CSE456 - Neural Networks and Deep Learning/Lab/Practical 2 - Perceptron Algorithm for a
Binary Classification Problem/19CSE456_Practical_2_Code.py' = 'E:/Plan B/Amrita Vishwa
Vidyapeetham/Subject Materials/Semester VI/19CSE456 - Neural Networks and Deep Learning/
Lab/Practical 2 - Perceptron Algorithm for a Binary Classification Problem'
```

Weight: [0.65311937 0.39002368]

Bias: 0.11706019576186966

Alpha: 0.1

Epoch: 1000

Enter Logical Operator (and, or, xor, exit): and

Epoch Value: 1

```
0 and 0 -> Actual: 0 ; Predicted: 1 ( w1: 0.5531193686335357 & w2: 0.29002368121292665
)
0 and 1 -> Actual: 0 ; Predicted: 1 ( w1: 0.5531193686335357 & w2: 0.29002368121292665
)
1 and 0 -> Actual: 0 ; Predicted: 1 ( w1: 0.5531193686335357 & w2: 0.29002368121292665
)
1 and 1 -> Actual: 1 ; Predicted: 1 ( w1: 0.5531193686335357 & w2: 0.29002368121292665
)
```

Epoch Value: 2

```
0 and 0 -> Actual: 0 ; Predicted: 0 ( w1: 0.45311936863353575 & w2: 0.19002368121292665
)
0 and 1 -> Actual: 0 ; Predicted: 1 ( w1: 0.45311936863353575 & w2: 0.19002368121292665
)
1 and 0 -> Actual: 0 ; Predicted: 1 ( w1: 0.45311936863353575 & w2: 0.19002368121292665
)
1 and 1 -> Actual: 1 ; Predicted: 1 ( w1: 0.45311936863353575 & w2: 0.19002368121292665
)
```

Epoch Value: 3

```
0 and 0 -> Actual: 0 ; Predicted: 0 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
)
0 and 1 -> Actual: 0 ; Predicted: 0 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
)
1 and 0 -> Actual: 0 ; Predicted: 1 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
)
1 and 1 -> Actual: 1 ; Predicted: 1 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
)
```

Epoch Value: 4

```
0 and 0 -> Actual: 0 ; Predicted: 0 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
```

```

)
0 and 1 -> Actual: 0 ; Predicted: 0 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
)
1 and 0 -> Actual: 0 ; Predicted: 0 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
)
1 and 1 -> Actual: 1 ; Predicted: 1 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
)

```

Enter Logical Operator (and, or, xor, exit): and

```

Epoch Value: 1
0 and 0 -> Actual: 0 ; Predicted: 0 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
)
0 and 1 -> Actual: 0 ; Predicted: 0 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
)
1 and 0 -> Actual: 0 ; Predicted: 0 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
)
1 and 1 -> Actual: 1 ; Predicted: 1 ( w1: 0.35311936863353577 & w2: 0.19002368121292665
)

```

Enter Logical Operator (and, or, xor, exit): or

```

Epoch Value: 1
0 or 0 -> Actual: 0 ; Predicted: 0 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)
0 or 1 -> Actual: 1 ; Predicted: 0 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)
1 or 0 -> Actual: 1 ; Predicted: 0 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)
1 or 1 -> Actual: 1 ; Predicted: 1 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)

```

```

Epoch Value: 2
0 or 0 -> Actual: 0 ; Predicted: 0 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)
0 or 1 -> Actual: 1 ; Predicted: 1 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)
1 or 0 -> Actual: 1 ; Predicted: 1 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)
1 or 1 -> Actual: 1 ; Predicted: 1 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)

```

Enter Logical Operator (and, or, xor, exit): or

```

Epoch Value: 1
0 or 0 -> Actual: 0 ; Predicted: 0 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)
0 or 1 -> Actual: 1 ; Predicted: 1 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)
1 or 0 -> Actual: 1 ; Predicted: 1 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)
1 or 1 -> Actual: 1 ; Predicted: 1 ( w1: 0.45311936863353575 & w2: 0.29002368121292665
)

```

)

Enter Logical Operator (and, or, xor, exit): exit

In [2]: