CO542 - NEURAL NETWORKS AND FUZZY SYSTEMS

MULTI LAYER PERCEPTRONS (MLP)

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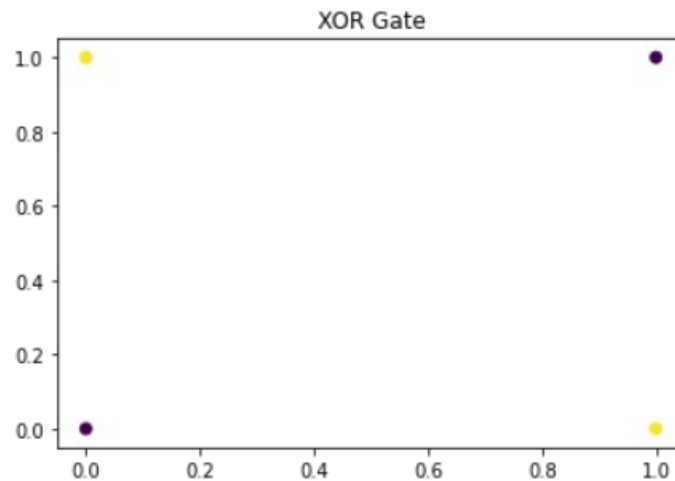
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LAB 04

09/10/2021

TASK 1

1. Number of inputs of the neural network : 2

    Number of outputs of the neural network: 1

2. This is the scatter plot of the XOR inputs and outputs. We cannot separate distinct outputs by a single straight line. They are not linearly separable.

XOR Gate

3. Input Vector = [[0, 0], [0, 1], [1, 0], [1, 1]]

    Target = [1,1,1,0]

4.

```
model = MLPClassifier(hidden_layer_sizes=(5),max_iter=10000)

netXOR = model.fit(data, labels)
```

This gives the results correctly. [0 1 1 0]