

Python 3.7.4 (default, Aug 9 2019, 18:34:13) [MSC v.1915 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 7.8.0 -- An enhanced Interactive Python.

```
In [1]: runfile('C:/Users/shash/Downloads/NNGateModel.py', wdir='C:/Users/shash/Downloads')
```

-----AND Neural Network Model-----

```
Cost after iteration 0: 1.500000
Cost after iteration 1: 0.500000
Cost after iteration 2: 0.500000
Cost after iteration 3: 1.000000
Cost after iteration 4: 0.500000
Cost after iteration 5: 0.000000
Cost after iteration 6: 0.000000
Cost after iteration 7: 0.000000
Cost after iteration 8: 0.000000
Cost after iteration 9: 0.000000
```

train accuracy: 100.0 %

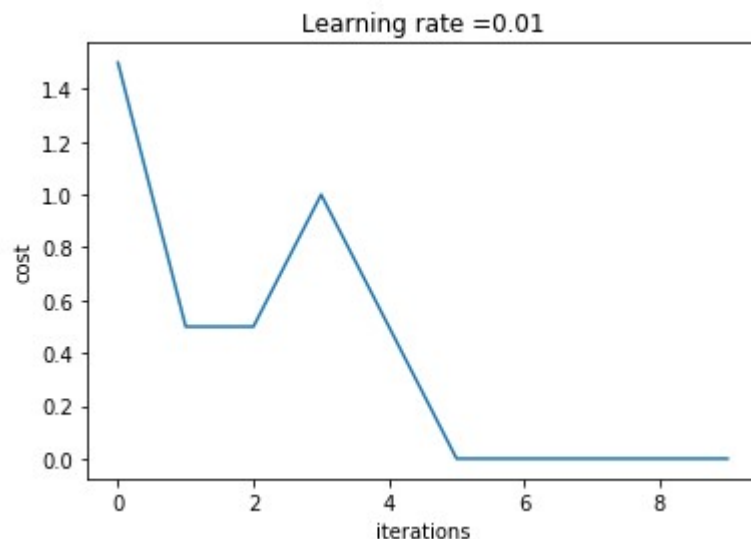
w: [[0.01]

[0.01]]

b: -0.019999999999999997

Y_prediction_train: [[0. 0. 0. 1.]]

Y_train: [[0 0 0 1]]



-----OR Neural Network Model-----

```
Cost after iteration 0: 0.500000
Cost after iteration 1: 1.500000
Cost after iteration 2: 0.500000
Cost after iteration 3: 0.500000
Cost after iteration 4: 0.000000
Cost after iteration 5: 0.000000
Cost after iteration 6: 0.000000
Cost after iteration 7: 0.000000
Cost after iteration 8: 0.000000
Cost after iteration 9: 0.000000
```

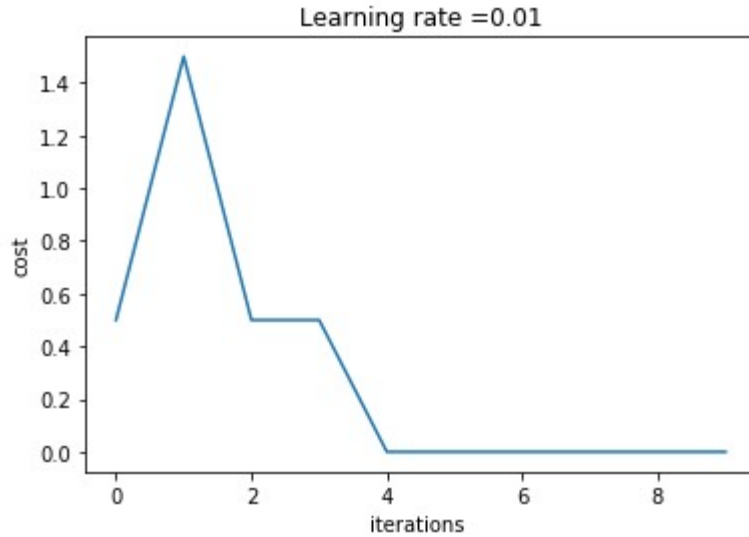
train accuracy: 100.0 %

w: [[0.02]

[0.02]]

b: -3.469446951953614e-18

```
Y_prediction_train: [[0. 1. 1. 1.]]
Y_train: [[0 1 1 1]]
```



-----NAND Neural Network Model-----

Cost after iteration 0: 0.500000

Cost after iteration 1: 1.500000

Cost after iteration 2: 0.500000

Cost after iteration 3: 1.000000

Cost after iteration 4: 0.500000

Cost after iteration 5: 0.000000

Cost after iteration 6: 0.000000

Cost after iteration 7: 0.000000

Cost after iteration 8: 0.000000

Cost after iteration 9: 0.000000

train accuracy: 100.0 %

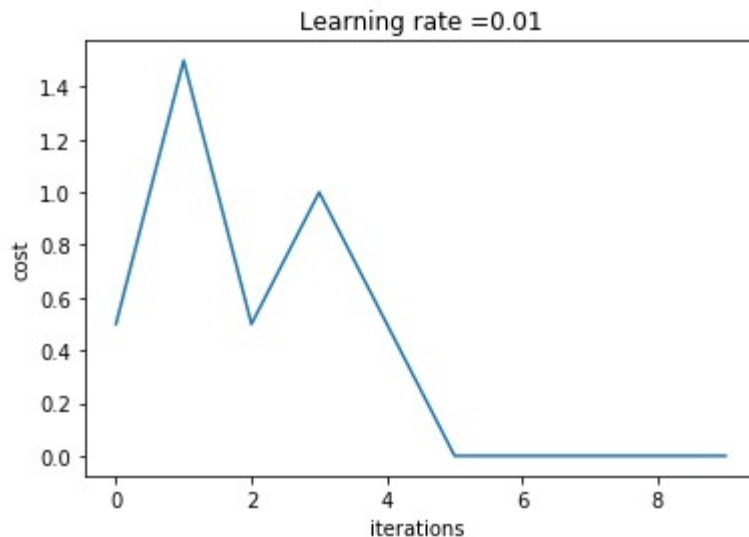
w: [[-0.01]

[-0.01]]

b: 0.019999999999999997

Y_prediction_train: [[1. 1. 1. 0.]]

Y_train: [[1 1 1 0]]



In [2]: