

```
1 from perceptron import Perceptron
2 from pandas import DataFrame
3
4
5 def run_perceptron():
6     print('\n\n***** AND *****\n\n')
7     p = Perceptron(2)
8     df = DataFrame([[0, 0], [0, 1], [1, 0], [1, 1]])
9     targets = [0, 0, 0, 1]
10    p.train(df, targets)
11    print('\n***** Classify *****')
12    p.classify([0, 1])
13
14    print('\n\n***** OR *****\n\n')
15    p = Perceptron(2)
16    df = DataFrame([[0, 0], [0, 1], [1, 0], [1, 1]])
17    targets = [0, 1, 1, 1]
18    p.train(df, targets)
19    print('\n***** Classify *****')
20    p.classify([0, 1])
21
22    print('\n\n***** NAND *****\n\n')
23    p = Perceptron(2)
24    df = DataFrame([[0, 0], [0, 1], [1, 0], [1, 1]])
25    targets = [1, 1, 1, 0]
26    p.train(df, targets)
27    print('\n***** Classify *****')
28    p.classify([0, 1])
29
30    print('\n\n***** NOR *****\n\n')
31    p = Perceptron(2)
32    df = DataFrame([[0, 0], [0, 1], [1, 0], [1, 1]])
33    targets = [1, 0, 0, 0]
34    p.train(df, targets)
35    print('\n***** Classify *****')
36    p.classify([0, 1])
37
38
39 if __name__ == '__main__':
40     run_perceptron()
41
```