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# -*- coding: utf-8 -*-
"""

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"""

def threshold(x):
    if x >= 0:
        return 1
    else:
        return 0

def mcp_neuron(w, b, i):
    inputs = i
    weights = w
    bias = b
    def activate():
        _sum = 0
        for x,y in zip(inputs, weights):
            _sum += (x*y)
        print("Sum: "+str(_sum))
        return threshold(_sum + bias)
    return activate()

def main():
    try:
        n = int(input("Total neurons to test: "))
        for i in range(0, n):
            raw_str1 = str(input("Enter input parameters: "))
            input_params = raw_str1.split(' ')
            input_params = [int(x) for x in input_params]
            raw_str2 = str(input("Enter input weights: "))
            input_weights = raw_str2.split(' ')
            input_weights = [float(x) for x in input_weights]

            input_bias = float(input("Enter bias: "))
            #print(input_weights)

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        #print(input_params)

        #print(input_bias)

        print("Result after thresholding: "+str(mcp_neuron(input_weights, input_bias,
input_params)))

        print("-----")

    except Exception as e:

        print("Error..\n"+ str(e))

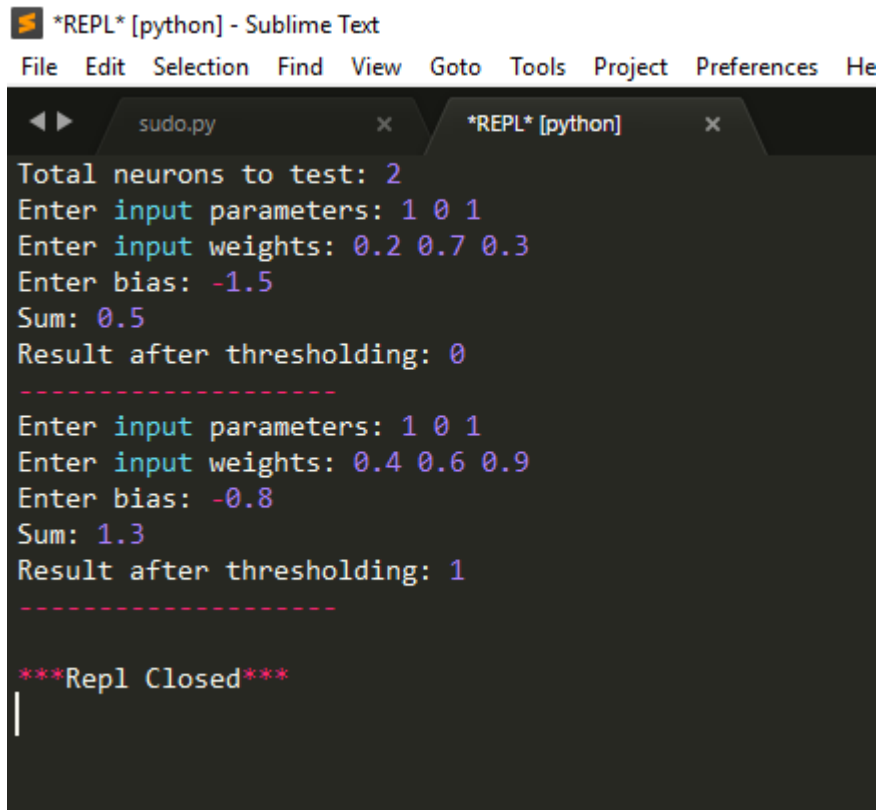

if __name__ == '__main__':

    main()


'''
Test:
[1 0 1]
([0.2, 0.7, 0.3], -1.5)
([0.4, 0.6, 0.9], -0.8)
([0.7, 0.4, -0.9], -0.6)
'''

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Output:



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*REPL* [python] - Sublime Text
File Edit Selection Find View Goto Tools Project Preferences He
sudo.py x *REPL* [python] x
Total neurons to test: 2
Enter input parameters: 1 0 1
Enter input weights: 0.2 0.7 0.3
Enter bias: -1.5
Sum: 0.5
Result after thresholding: 0
-----
Enter input parameters: 1 0 1
Enter input weights: 0.4 0.6 0.9
Enter bias: -0.8
Sum: 1.3
Result after thresholding: 1
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***Repl Closed***
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