**Assignment No : 3**

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**Roll No. - 36**

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**CODE:**

x1=[0,0,1,1]

x2=[0,1,0,1]

y1=[]

w1=input("\nEnter value of weight w1 : ")

w2=input("Enter value of weight w2 : ")

th=int(input("Enter threshold value : "))

def dis(x1,x2,y,y1):

print("x1\tx2\ty\tcalculated y")

for i in range(len(x1)):

print x1[i],"\t",x2[i],"\t",y[i],"\t",y1[i]

for i in range(len(x1)):

z=(x1[i]\*w1)+(x2[i]\*w2)

if z>=th:

y1.append(1)

else:

y1.append(0)

print y1

while 1:

print("\nWhat case you want to check : \n1. ANDNOT\t2. AND\t3. OR\t4. Quit")

ch=int(input("Enter your choise : "))

if ch == 1:

y=[0,0,1,0]

dis(x1,x2,y,y1)

if y==y1:

print("\n\nThrowing Neuron!!!!!")

else:

print("\n\nNot Throwing Neuron!!!")

print y1

elif ch == 2:

y=[0,0,0,1]

if y==y1:

print("\n\nThrowing Neuron!!!!!")

else:

print("\n\nNot Throwing Neuron!!!")

print y1

elif ch == 3:

y=[0,1,1,1]

if y==y1:

print("\n\nThrowing Neuron!!!!!")

else:

print("\n\nNot Throwing Neuron!!!")

print y1

elif ch == 4:

quit()

else:

print("Please enter correct choise between 1 to 4 : ")

**OUTPUT:**

Enter value of weight w1 : 1

Enter value of weight w2 : 1

Enter threshold value : 1

What case you want to check :

1. ANDNOT 2. AND 3. OR 4. Quit

Enter your choise : 1

x1 x2 y calculated y

0 0 0 0

0 1 0 1

1 0 1 1

1 1 0 1

Not Throwing Neuron!!!

What case you want to check :

1. ANDNOT 2. AND 3. OR 4. Quit

Enter your choise : 2

x1 x2 y calculated y

0 0 0 0

0 1 0 1

1 0 0 1

1 1 1 1

Not Throwing Neuron!!!

What case you want to check :

1. ANDNOT 2. AND 3. OR 4. Quit

Enter your choise : 3

x1 x2 y calculated y

0 0 0 0

0 1 1 1

1 0 1 1

1 1 1 1

Throwing Neuron!!!!!