In [1]:
```
import numpy as np
x=np.array([[0],[1]])
t=np.array([[1],[0]])
w=np.array([0])
theta=1
yin=np.zeros(shape=(2,1))
y=np.zeros(shape=(2,1))
yin=np.dot(x,w)
i=0
found=0
while(found==0):
  i=0
  yin=np.dot(x,w)
  print(yin)
  while(i<2):
    if yin[i]>=theta:
      y[i]=1
      i=i+1
    else:
      y[i]=0
      i=i+1
  print("y",y)
  print("t",t)
  if (y==t).all():
    print("MODEL IS TRAINED ")
    print("\nOutput : \n",y)
    print("\nweights : ",w,"\n")
    print("theta : ",theta)
    found=1
  else:
    print("MODEL IS NOT TRAINED")
    w=np.zeros(shape=(0,0))
    theta=int(input("Enter New Theta : "))
    for k in range(int(1)):
      w=int(input("Enter Weight : "))
```

```
[0 0]
y [[0.]
 [0.]]
t [[1]
 [0]]
MODEL IS NOT TRAINED
Enter New Theta : 0
Enter Weight : -1
[[ 0]
 [-1]]
y [[1.]
 [0.]]
t [[1]
 [0]]
MODEL IS TRAINED

Output :
 [[1.]
 [0.]]

weights :  -1

theta :  0
```

In [ ]: