In [2]:
```
input_size=2
hidden_layers=3
neurons_in_hidden_layer=4
output_size=2
learning_rate=0.1

model=ANN(input_size,hidden_layers,neurons_in_hidden_layer,output_size,learning_rate)
```

In [7]:
```
x=np.array([[0,0],[0,1],[1,0],[1,1]])
x=x.T
y=np.array([[1,0],[0,1],[0,1],[1,0]])
x
```

```
[[1 0]
 [0 1]
 [0 1]
 [1 0]]
```

In [ ]:
```
epochs=10000
model.train(x,y,epochs)
```

In [5]:
```
hh=model.forward([[0],[1]])
print(hh[-1])
```

```
[[0.49791286]
 [0.49563672]]
```

In [6]:
```
while(True):
    x1=int(input("Enter INPUT 1 : "))
    if(x1>1):
        break
    x2=int(input("Enter INPUT 2 : "))
    prediction=model.forward([[x1],[x2]])
    print("OUTPUT : ",np.argmax(prediction[-1],axis=0))
    print('\n')
```

```
OUTPUT :  [0]


OUTPUT :  [1]


OUTPUT :  [0]


OUTPUT :  [1]


OUTPUT :  [1]
```

In [ ]:

In [ ]: