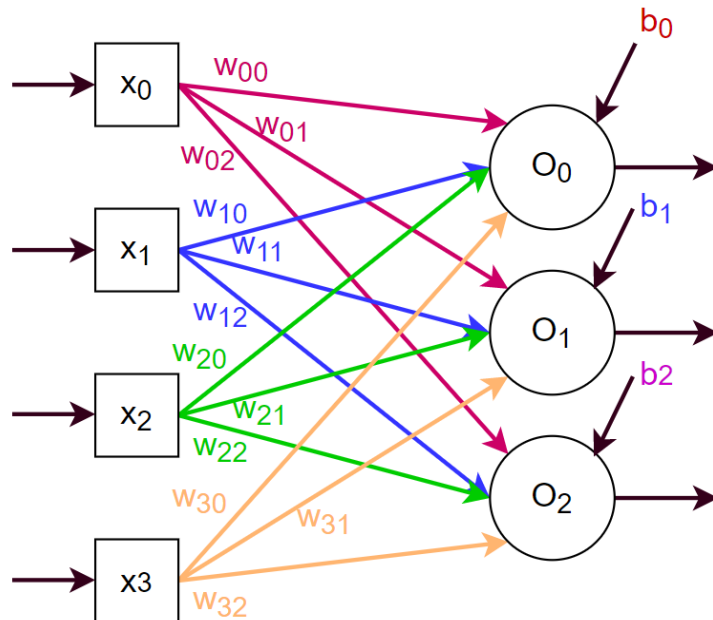


## Assignment on Numpy Basics and Matrix operations

Consider the following Artificial Neural Network (ANN)



Parameter	Value
w00	0.25
w01	0.12
w02	0.13
w10	0.24
w11	0.14
w12	0.25
w20	0.19
w21	0.17
w22	0.33
w30	0.21
w31	0.17
w32	0.22
b0	0.5
b1	0.5
b2	0.5

- $w_{ij}$  are weight values
- $x$  is the input vector  $\langle x_0 \dots x_i \rangle$
- $O$  is the output vector  $\langle O_0 \dots O_j \rangle$
- $b$  is the bias vector  $\langle b_0 \dots b_j \rangle$
- $0 \leq i \leq 3$  and  $0 \leq j \leq 2$

Find the output for these input vectors:

$\langle x_0 \dots x_i \rangle$
$\langle 5, 3, 7, 4 \rangle$
$\langle 2, 1, 7, 3 \rangle$