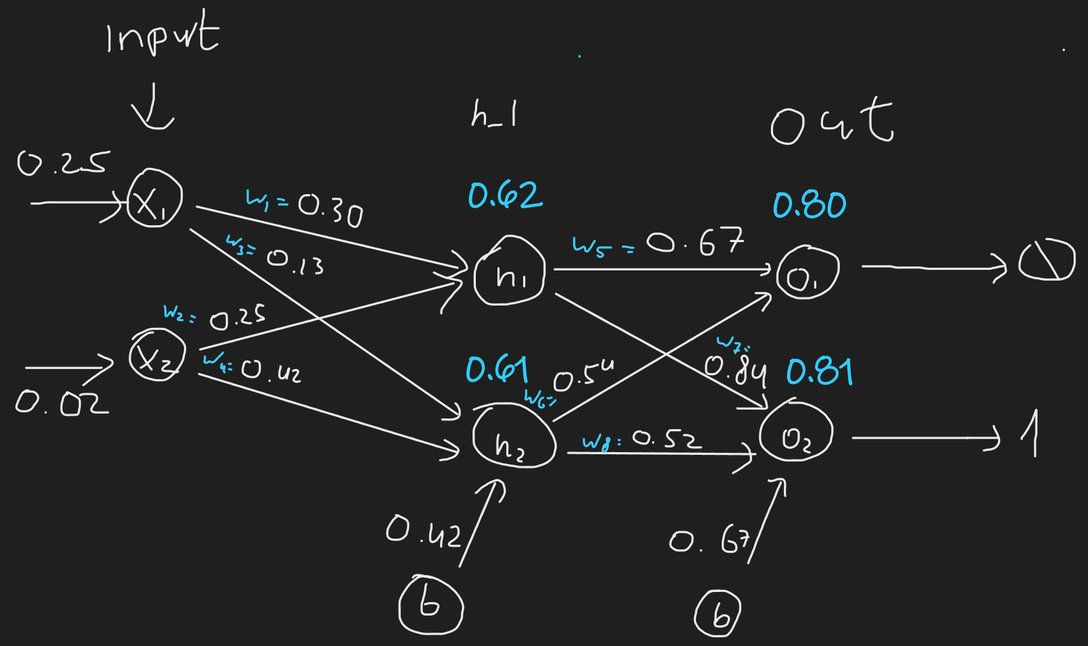

X1*W1 + X2*W2 + b

activation function $\frac{1}{1+e^{-(0.5)}}$

(h_1) = 0.25 * 0.30 + 0.02 * 0.25 + 0.42 = 0.5 → $\frac{1}{1+e^{-(0.5)}}$ = 0.62

(h_2) = 0.25 * 0.13 + 0.02 * 0.42 + 0.42 = 0.61

(O_1) = 0.62 * 0.67 + 0.61 * 0.54 + 0.67 = 0.80

(O_2) = 0.62 * 0.84 + 0.61 * 0.52 + 0.67 = 0.81

$$Error\_O1 = \frac{1}{2}(0 - 0.80)^2 = 0.32$$

$$Error\_O2 = \frac{1}{2}(1 - 0.81)^2 = 0.01805$$

$$Error\_Total = \sum e_i = 0.338$$

$$\frac{\partial total\_e}{\partial (w8)} = \frac{\partial total\_e}{\partial output} * \frac{\partial output}{\partial input} * \frac{\partial input}{\partial w8}$$