*CONCLUSIONS FOR AND GATE*

**EPOCH:**

* The minimum epoch to obtain correct predictions for my given input is 5(2-bit).
* Suppose if we decrease the epoch from 5, then we will not get the precise weights and we may not get our desired outputs.
* If we increase or set the epoch more than the minimum required (here 5) then there will be no change in the weights and biases.

**LEARNING RATE:**

If we do any changes in the learning rate, there will be no change in the threshold but the weights will change.

1. Learning Rate increases, weights increase
2. Learning Rate decreases, weights decrease

In both the cases, threshold will remain the same.

**INITIAL WEIGHTS AND BIASES:**

If we change initial values of weights and bais, the required weights will change as well as the threshold(epoch) will change. Like in 2-bit AND Gate

* Weights = [0,0,0], minimum epoch = 5, learning rate = 0.1, weights = [-0.2,0.2,0.1]
* Weights = [2,2,2], minimum epoch = 12, learning rate = 0.1, weights = [-0.9,0.9,0.8]