**Output:-**

1. **When threshold = 1**

= = = = = =

Epoch number :0

weights ---> [0. 0. 0.]

predicted value = 0

1. **When threshold = 2**

= = = = = =

Epoch number :0

weights ---> [0. 0. 0.]

= = = = = =

Epoch number :1

weights ---> [-0.01 0. 0. ]

predicted value = 0

1. **When threshold = 3**

= = = = = =

Epoch number :0

weights ---> [0. 0. 0.]

= = = = = =

Epoch number :1

weights ---> [-0.01 0. 0. ]

= = = = = =

Epoch number :2

weights ---> [-0.01 0.01 0. ]

predicted value = 0

1. **When threshold = 4**

= = = = = =

Epoch number :0

weights ---> [0. 0. 0.]

= = = = = =

Epoch number :1

weights ---> [-0.01 0. 0. ]

= = = = = =

Epoch number :2

weights ---> [-0.01 0.01 0. ]

= = = = = =

Epoch number :3

weights ---> [-0.02 0.01 0. ]

predicted value = 0

1. **When threshold = 5**

= = = = = =

Epoch number :0

weights ---> [0. 0. 0.]

= = = = = =

Epoch number :1

weights ---> [-0.01 0. 0. ]

= = = = = =

Epoch number :2

weights ---> [-0.01 0.01 0. ]

= = = = = =

Epoch number :3

weights ---> [-0.02 0.01 0. ]

= = = = = =

Epoch number :4

weights ---> [-0.02 0.01 0.01]

predicted value = 1

Learning rates require more training epochsgiven the smaller changes made to the weights each update,whereas larger learning rates resukt in rapid changes and require fewer training epochs.