T1: What will be result if input is 1,0 and 0,0 and 0,1 and 1,1, Use sigmoid for activation.

Also calculate weights after **back propagation**, if data is following

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | **A** | **B** | **Expected** | | 0 | 0 | 0 | | 0 | 1 | 1 | | 1 | 0 | 1 | | 1 | 1 | 0 | |  |

T2: Train neural network on following dataset ( <https://www.kaggle.com/pranavpandey2511/tennis-weather> ), you should predict if match will be played or not

Learning rate is 0.1

Notebook for Neural network:

<https://s3-us-west-1.amazonaws.com/youtube-channel/nn_training_2_layer_network.ipynb>

T3: (USE T2) Find how changing learning rate, changing number of hidden neurons affect training time.