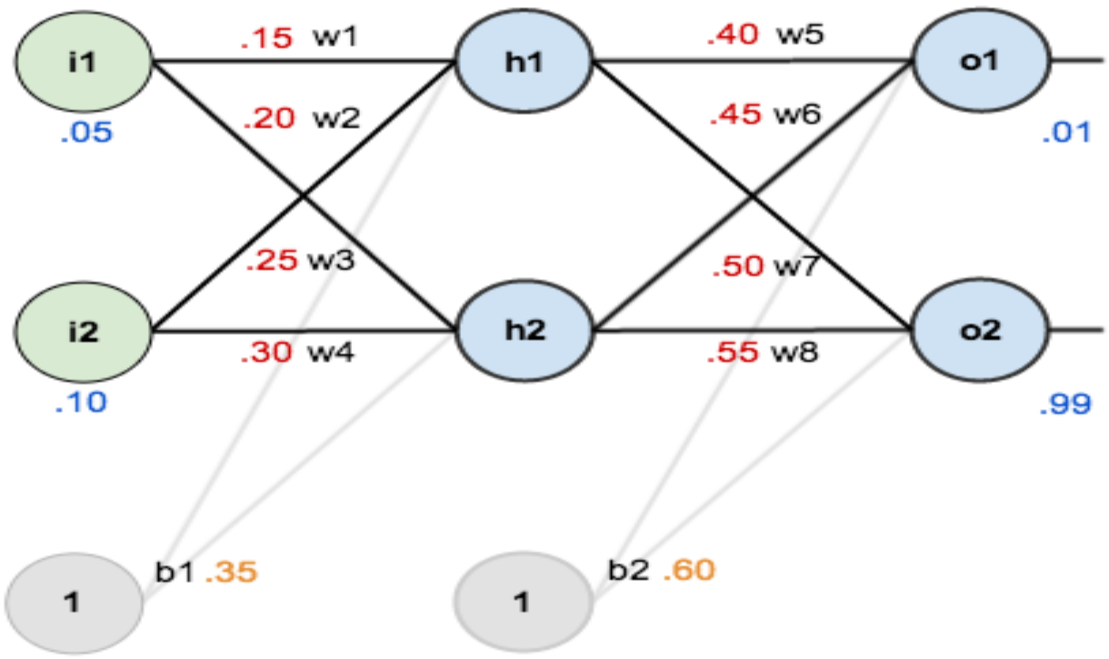
Sheet1

Use a neural network with two inputs, two hidden neurons, and two output neurons. Additionally, the hidden and output neurons will include a bias.

In order to have some numbers to work with, here are the initial weights, the biases, and training inputs/outputs:



The goal of backpropagation is to optimize the weights so that the neural network can learn how to correctly map arbitrary inputs to outputs. (Use mean square error as loss function besides sigmoid function as activation function for all units.)

The given inputs 0.05 and 0.10, we want the neural network to output 0.01 and 0.99.

Do only one iteration to calculate the Following:

W1=?

W2=?

W3=?

W4=?

W5=?

W6=?

W7=?

W8=?

The error of the network after and before the first iterations=??