**Simple Neural Network**

Creating a simple neural network in Python with one input layer (3 inputs) and one output neuron. A neural network with no hidden layers is called a perceptron.

The code is an object and can be used by giving in different inputs.

**What does it do?**

This program tries to predict the output given 3 binary inputs. If the first input is 1, the output should be one. Otherwise the output should be 0.

Random starting synaptic weights:

[[-0.16595599]

[ 0.44064899]

[-0.99977125]]

Synaptic weights after training:

[[10.38040701]

[-0.20641179]

[-4.98452047]]

Input 1: >? 1

Input 2: >? 0

Input 3: >? 1

New situation: input data = 1 0 1

Output data:

[0.99548528]

Here the output can never be 1 but something very close to 1 because of the properties of the Sigmund function.