Optimization Techniques

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**Handwriting recognition approximation**

After a little study of image processing we can understand easily that 0 is black , 255 is white and grey scale changes between 0-255.

In this example I will train colors from 0 to 10 as 0 white and 10 is black.

=0 A close up of a logo

Description automatically generated =0 A close up of a logo

Description automatically generated =0  =0

A close up of a logo

Description automatically generated=1  =1 A close up of a logo

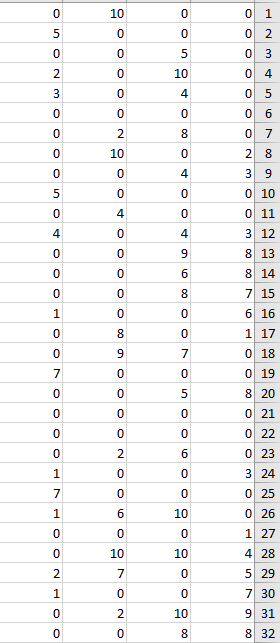
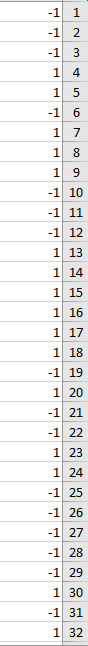
Description automatically generated =1 =1

# How Does it work?

Lets take an image shown up as example.

 **=1** , but its expression as array is although we can reshape it to one line array as . And now what we need is a lot of data to train.

Good to know: x = 1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10

**Input**  **Output** 

Part of inputs and outputs

# Result

