## Attempt to build neural network in Numpy

## Data:

The MNIST database is a large database of handwritten digits that is commonly used for training various image processing systems. The database is also widely used for training and testing in the field of machine learning. It was created by "re-mixing" the samples from NIST's original datasets. Furthermore, the black and white images from NIST were normalized to fit into a 28x28 pixel bounding box and anti-aliased, which introduced grayscale levels.

The MNIST database contains 60,000 training images and 10,000 testing images. Half of the training set and half of the test set were taken from NIST's training dataset, while the other half of the training set and the other half of the test set were taken from NIST's testing dataset.

Data reference: https://yann.lecun.com/exdb/mnist/

## **Attributes:**

Image of 28X28 grayscale images of digits 0-9

• Training data: 60000 images

Test data: 10000

## **Key asks:**

• Build a basic neural network with two layers from scratch using Numpy only