Deep Learning CNN - Home Exercise:

For this exercise use the numbers images dataset that contain multiple pictures of different numbers between 0 - 9.
The dimension of each picture is 28 X 28.

Use Google Colab and Nvidia GPU for training your model.
Use Google drive to upload the images dataset.

Exercise instructions:
CNN:

1. Your mission is to provide a deep learning model that can successfully recognize an image number.
2. Split the images for each number to train set and test set, keep in mind that the number of images is not identical for each number.
   For the test set provide 1000 images of each number, use the rest images as the training set.
3. Train a full CNN (convolutional neural network) model on the images dataset.
4. Print for each model iteration the corresponding accuracy, F1-score and recall metrics.
5. Evaluate your model performance using the test set and print the accuracy, F1-score and recall metrics.
6. Print the confusion matrix of your model prediction.
7. In case your model has accuracy that less than 80% try to increase its accuracy by changing the model parameters.
8. Find 3 different numbers pictures from the internet and test your model prediction.