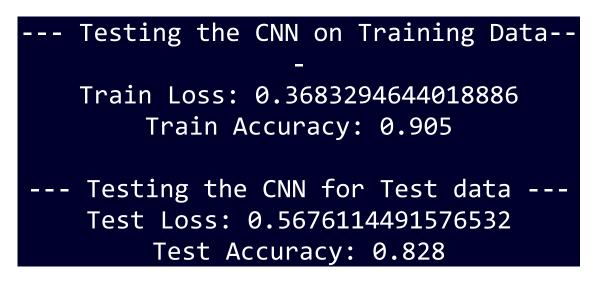
Assignment 5

Convolution Neural Network [10 Marks]

Consider the problem for classifying the MNIST Handwritten Digit Classification Dataset. Apply a CNN-based architecture with a SoftMax layer to classify the dataset into respective classes. Use nine filters of size 3×3 and stride of 1 without padding for the convolution layer, and a 2×2 kernel with a stride of 2 for the maxpooling.

- 1.Classify the dataset using CNN-based multiclass classification algorithm and calculate the training set accuracy for the model. [8 Marks]
- 2.Apply the trained model algorithm on the test dataset and predict the testing accuracy of the model. [1 Mark]

Final Accuracy of model on training data and test data



Plotting some test images and labels along with final predicted labels

