Assignment 2

Write a python code in Jupyter notebook to build the following fully connected feedforward neural networks for digit classification on MNIST data and compare their performance. In both the setup, the network must have 10 hidden layers, each layer having 10 neurons.

1. The activation function is sigmoid everywhere.
2. The activation function is ReLU (except in the output layer, where the activation function is sigmoid)

Train your network using ADAM optimizer, with 64 batch size, learning rate 0.0001 and error function is cross entropy. Use batch normalization. You must train and test your model on the training set and the test set given in the following link: http://yann.lecun.com/exdb/mnist/.

Submission guideline: You have to submit the successfully executed jupyter notebook. Thus, before you upload the notebook, make sure you have successfully executed the notebook. Each student must submit exactly one notebook in moodle.

Deadline: 27th October, 11.55 pm Indian time.