21BDS0340

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Deep Learning Lab

Assessment – II

**Aim:**

To train a model using the MNIST digits dataset and predict values from test data using convolutional layers.

**Procedure:**

1. Load the MNIST digits dataset from keras
2. Create a utility function to plot a random digit
3. Create a utility function to plot a confusion matrix with a model and testing data
4. Create, compile, and fit the base CNN model
5. Evaluate the model using a confusion matrix
6. Create, compile, and fit the updated CNN model
7. Evaluate the model using a confusion matrix
8. Create, compile, and fit the updated CNN model
9. Evaluate the model using a confusion matrix

**Code:**

Interactive Python notebook attached below: