21BDS0340

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Deep Learning Lab

Assignment – III

**Procedure:**

1. Load the MNIST dataset
2. Flatten the data to feed to a neural network
3. Make the labels into categorical data from sparse categorical data
4. Create helper methods for the history and test accuracy measures
5. Create the base model 1
6. View the history and accuracies
7. Add a kernel initialization to the model 2
8. View the history and accuracies
9. Change the activation from sigmoid to relu for the model 3
10. View the history and accuracies
11. Change the optimizer to adam for the model 4
12. View the history and accuracies
13. Add batch normalization between the hidden dense layers for the model 5
14. View the history and accuracies
15. Change the batch normalization to dropout layers for the model 6
16. View the history and accuracies

**Interactive Python Notebook on the following pages:**