

LAB-3

Optimizers:

1. Basic Model:
Test loss: 0.10723690930629441
Test accuracy: 0.9792
2. SGD
Test loss: 0.08962646822195133
Test accuracy: 0.9824
3. RMS Prop
Test loss: 0.1318153593742892
Test accuracy: 0.9828
4. Adagrad
Test loss: 0.1223115193219734
Test accuracy: 0.9835
5. AdaDelta
Test loss: 0.12350684602056067
Test accuracy: 0.9833
6. Adam
Test loss: 0.1003082444488929
Test accuracy: 0.9825
7. Adamax
Test loss: 0.11378732973890537
Test accuracy: 0.9851
8. Nadam
Test loss: 0.12609849862426603
Test accuracy: 0.9789

Least Loss Optimizer: SGD(0.08962646822195133)

Best Accuracy: Adamax(0.9851)

Dataset:

MNIST: Loss- 0.10237183108407931 Accuracy - 0.9813

FASHION_MNIST: Loss - 0.33186029723882676 Accuracy - 0.8768

CIFAR10: Loss - 1.3632704982757569 Accuracy - 0.5149

CIFAR100: Loss - 3.5743300926208494 Accuracy - 0.172

IRIS: Loss - 0.110111 Accuracy - 1.000000