**PRACTICAL-3**

Optimizers:

1. Basic Model:

Test loss: 0.10723690930629441

Test accuracy: 0.9792

1. SGD

Test loss: 0.08962646822195133

Test accuracy: 0.9824

1. RMS Prop

Test loss: 0.1318153593742892

Test accuracy: 0.9828

1. Adagrad

Test loss: 0.1223115193219734

Test accuracy: 0.9835

1. AdaDelta

Test loss: 0.12350684602056067

Test accuracy: 0.9833

1. Adam

Test loss: 0.1003082444488929

Test accuracy: 0.9825

1. Adamax

Test loss: 0.11378732973890537

Test accuracy: 0.9851

1. 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