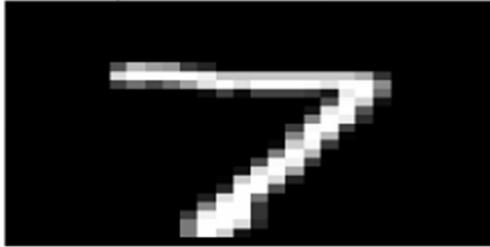


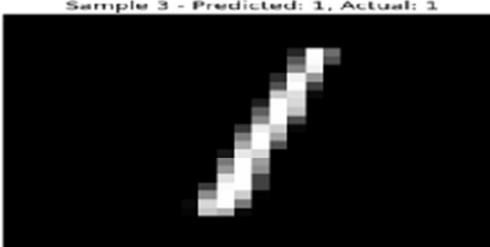
## OUTPUT FOR EXP-1

NAME: KEEERTHIKA S  
ROLL NO: 220701127  
EXP\_NO: 1

```
Downloading data from https://storage.googleapis.com/tensorflow/tf-keras-datasets/mnist.npz
11490434/11490434 [0%] 0s/stop
/usr/local/lib/python3.11/dist-packages/keras/src/layers/core/dense.py:87: UserWarning: Do not pass an 'input_shape'/'input_dim' argument to a layer. When using
super().__init__(activity_regularizer=activity_regularizer, **kwargs)
Epoch 1/10
192/192    4s 15ms/step - accuracy: 0.7998 - loss: 0.7548 - val_accuracy: 0.9495 - val_loss: 0.1838
Epoch 2/10
192/192    4s 20ms/step - accuracy: 0.9548 - loss: 0.1082 - val_accuracy: 0.9618 - val_loss: 0.1274
Epoch 3/10
192/192    4s 12ms/step - accuracy: 0.9718 - loss: 0.0071 - val_accuracy: 0.9684 - val_loss: 0.1091
Epoch 4/10
192/192    3s 12ms/step - accuracy: 0.9886 - loss: 0.0046 - val_accuracy: 0.9785 - val_loss: 0.0958
Epoch 5/10
192/192    3s 13ms/step - accuracy: 0.9863 - loss: 0.0487 - val_accuracy: 0.9756 - val_loss: 0.0859
Epoch 6/10
192/192    5s 13ms/step - accuracy: 0.9903 - loss: 0.0376 - val_accuracy: 0.9779 - val_loss: 0.0868
Epoch 7/10
192/192    3s 12ms/step - accuracy: 0.9917 - loss: 0.0293 - val_accuracy: 0.9726 - val_loss: 0.0937
Epoch 8/10
192/192    2s 12ms/step - accuracy: 0.9941 - loss: 0.0222 - val_accuracy: 0.9772 - val_loss: 0.0770
Epoch 9/10
192/192    3s 15ms/step - accuracy: 0.9963 - loss: 0.0158 - val_accuracy: 0.9779 - val_loss: 0.0787
Epoch 10/10
192/192    5s 12ms/step - accuracy: 0.9976 - loss: 0.0115 - val_accuracy: 0.9781 - val_loss: 0.0817
313/313    1s 3ms/step - accuracy: 0.9965 - loss: 0.0787
Test Results - Loss: 0.07089122520585196 - Accuracy: 0.9900000190734063
1/1    0s 7ms/stop
```

Sample 1 - Predicted: 7, Actual: 7 

Sample 2 - Predicted: 2, Actual: 2 

Sample 3 - Predicted: 1, Actual: 1 

Sample 4 - Predicted: 0, Actual: 0 

Sample 5 - Predicted: 4, Actual: 4 