Team ID	PNT2022TMID52603
Project Name	A Novel Method for Handwritten Digit Recognition System

Test the Model

In [14]:
```python
prediction = model.predict(X_test[:4])
print(prediction)
```

```
1/1 [==============================] - 0s 93ms/step
[[3.8792835e-14 8.3256153e-19 1.2104955e-09 3.5258818e-10 1.6482299e-16
  4.5727086e-18 2.5164220e-19 1.0000000e+00 1.5363114e-11 1.9485049e-12]
 [1.7578901e-10 2.8832210e-12 1.0000000e+00 1.5988402e-11 1.5245395e-14
  6.1881199e-16 2.2654276e-09 1.2832406e-17 1.1551003e-09 3.0198635e-18]
 [9.4571995e-08 9.9983597e-01 3.3095176e-07 6.2954503e-10 2.2472517e-05
  4.5596639e-06 4.8946657e-08 2.1710314e-10 1.3647172e-04 1.6306684e-09]
 [9.9999988e-01 2.8434036e-15 2.3809971e-11 1.6530215e-16 6.1028758e-14
  5.0687368e-13 1.1864643e-07 5.4995063e-15 4.8861692e-11 4.9108330e-12]]
```

In [16]:
```python
print(np.argmax(prediction, axis=1))
print(Y_test[:5])
```

```
[7 2 1 0]
[[0. 0. 0. 0. 0. 0. 0. 1. 0. 0.]
 [0. 0. 1. 0. 0. 0. 0. 0. 0. 0.]
 [0. 1. 0. 0. 0. 0. 0. 0. 0. 0.]
 [1. 0. 0. 0. 0. 0. 0. 0. 0. 0.]
 [0. 0. 0. 0. 1. 0. 0. 0. 0. 0.]]
```