Test The Model

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Project Name: A Novel Method For Handwritten Digit Recognition System
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Firstly we are slicing the x_test data until the first four images. In the next step we the printing the predicted output.

Predicting the output

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

```
[[5.50544734e-15 7.41999492e-20 5.00876077e-12 1.26642463e-09
   3.52252804e-21 1.54133163e-17 3.15550259e-21 1.00000000e+00
   1.32678888e-13 6.44072333e-14]
 [1.51885260e-08 8.02883537e-09 1.00000000e+00 6.44802788e-13
   6.37117113e-16 3.40490114e-15 2.15804121e-08 2.18907611e-19
   3.38496564e-10 2.07915498e-20]
 [3.14093924e-08 9.99941349e-01 2.01593957e-06 1.45100779e-10
   5.25237965e-06 1.59223120e-07 3.15299786e-08 1.53995302e-07
   5.09846941e-05 1.14552066e-07]
 [1.00000000e+00 1.35018288e-14 2.28308122e-10 1.79766094e-16
   1.28767550e-14 7.12401882e-12 2.92727509e-11 3.52439052e-13
   2.56207252e-12 2.32345068e-12]]
```

```
import numpy as np
print(np.argmax(prediction,axis=1)) #printing our labels from first 4 images
print(y_test[:4]) #printing the actual labels

[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.]]
```

As we already predicted the input from the x_test. According to that by using argmax function here we are printing the labels with high prediction values