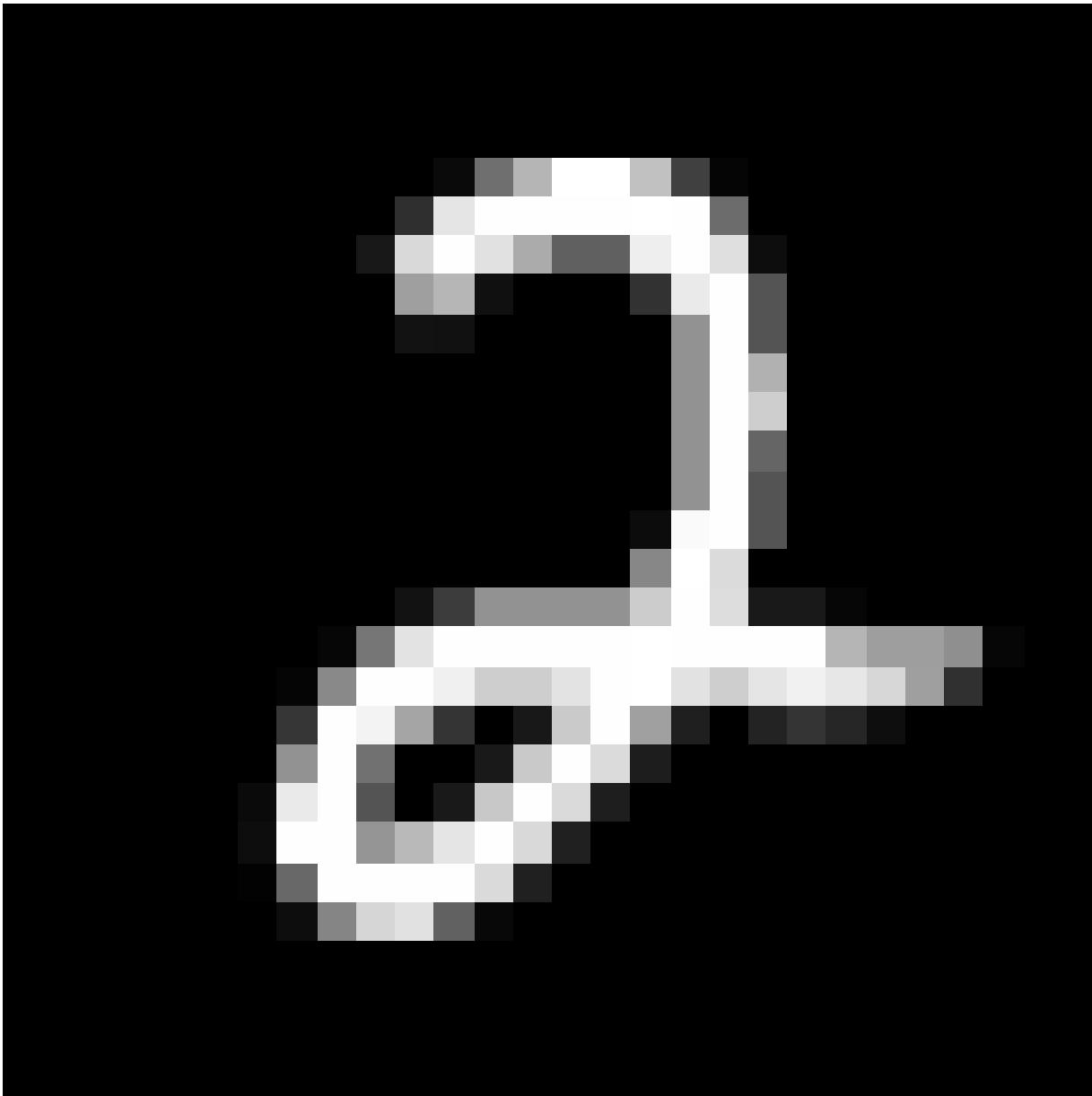
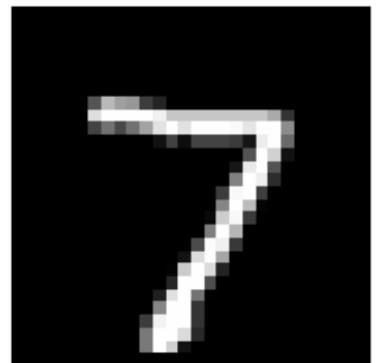


Predicted Digit: 2



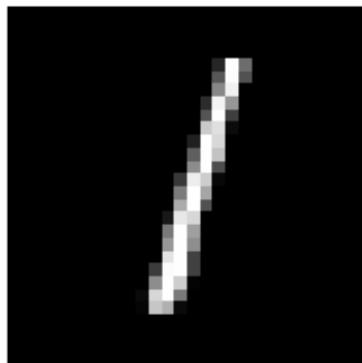
Pred: 7



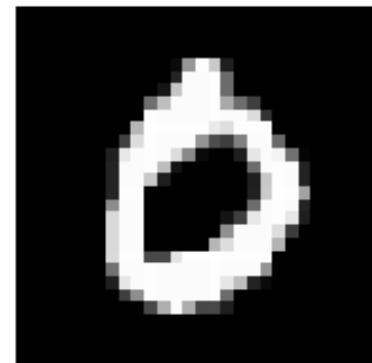
Pred: 2



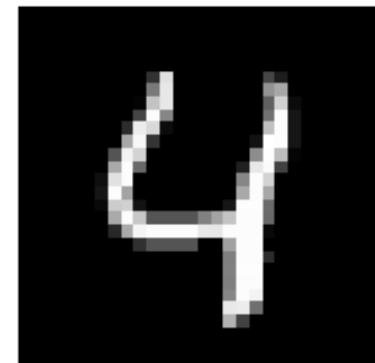
Pred: 1



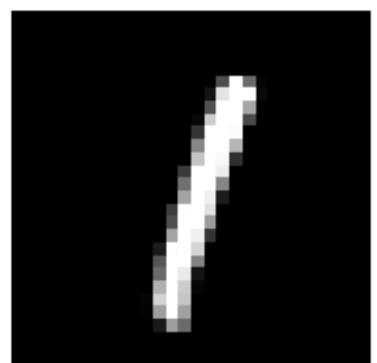
Pred: 0



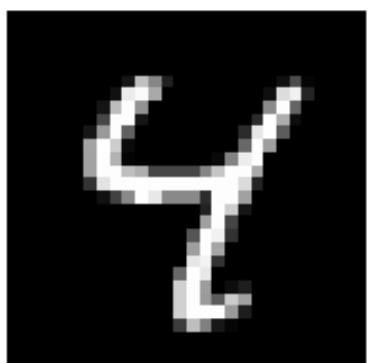
Pred: 4



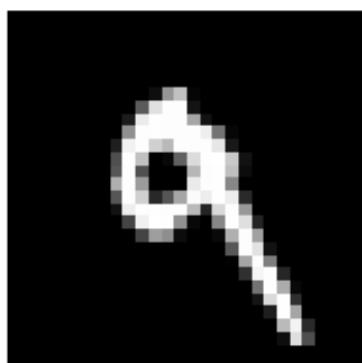
Pred: 1



Pred: 4



Pred: 9

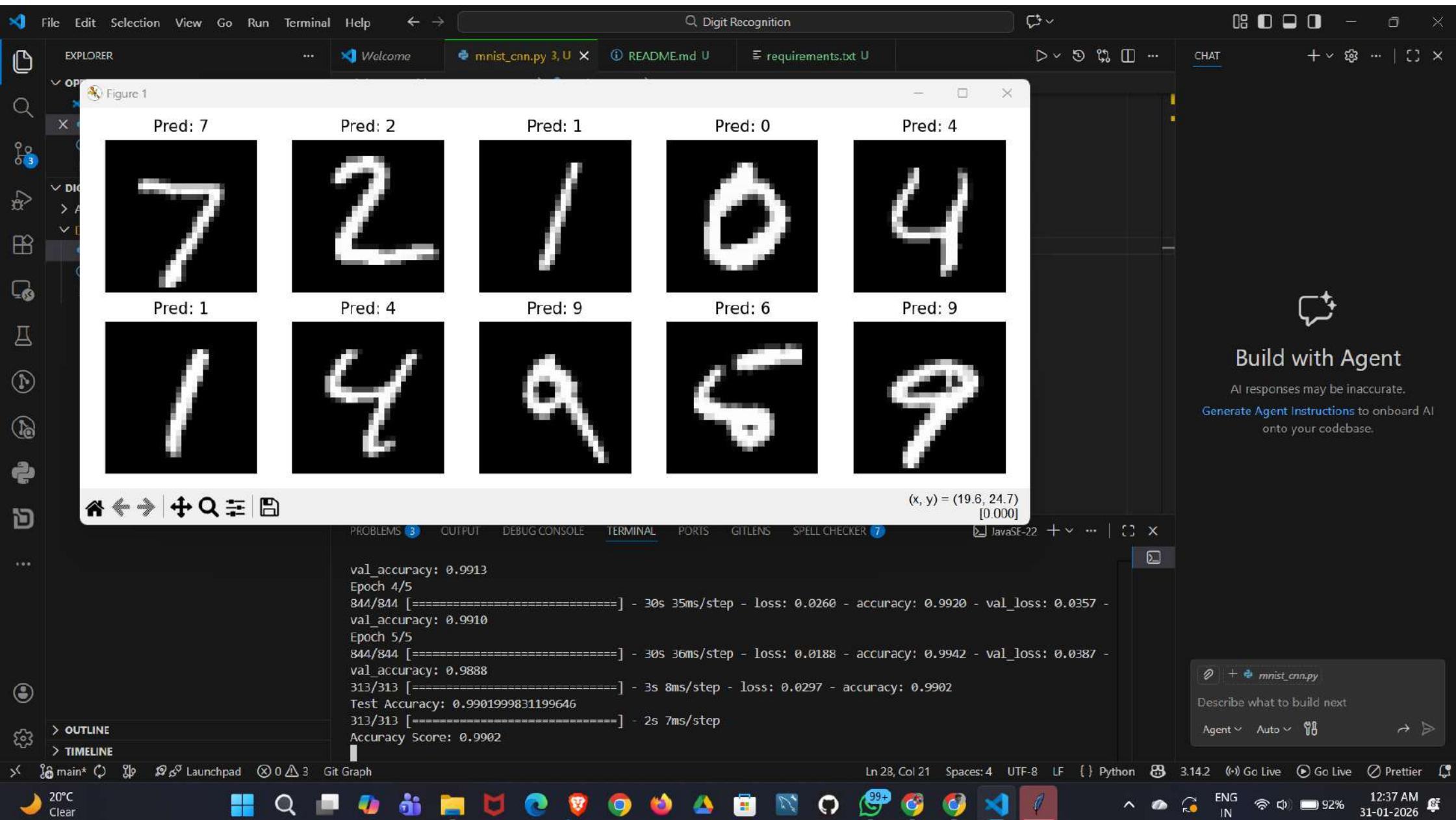


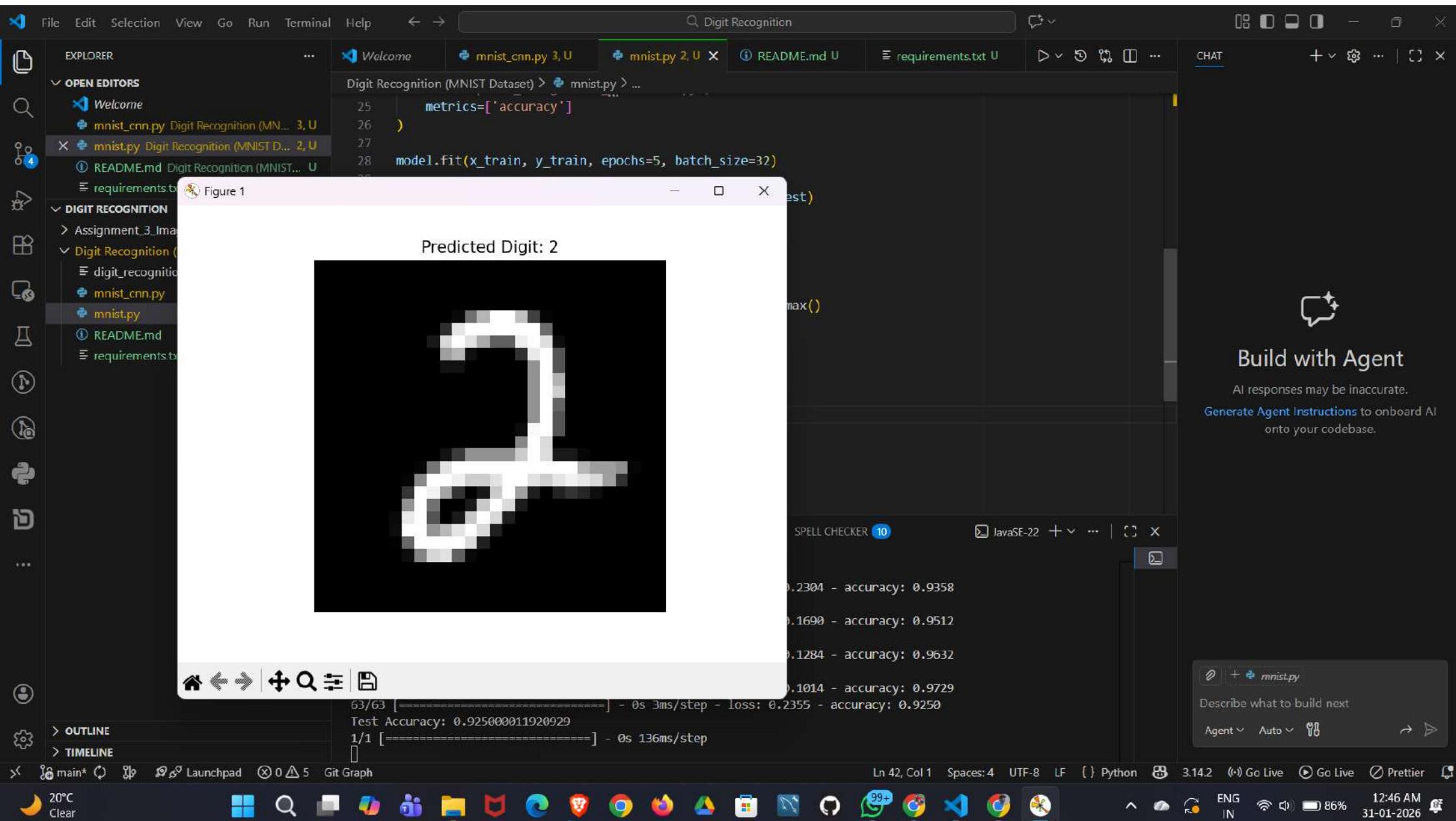
Pred: 6



Pred: 9







File Edit Selection View Go Run Terminal Help ← → ⌂ Digit Recognition

EXPLORER OPEN EDITORS CHAT

Welcome mnist\_cnn.py 3, U mnistpy 2, U README.md requirements.txt

mnist\_cnn.py Digit Recognition (MNIST D... 3, U  
X mnist.py Digit Recognition (MNIST D... 2, U  
README.md Digit Recognition (MNIST D... U  
requirements.txt Digit Recognition (MNIST D... U

DIGIT RECOGNITION

> Assignment\_3.Image Classification  
> Digit Recognition (MNIST Dataset)  
digit\_recognition\_model.h5  
mnist\_cnn.py  
mnist.py  
README.md  
requirements.txt

Figure 1

Predicted Digit: 2



JavaSE-22

: 0.9316  
: 0.9494  
: 0.9613  
: 0.9692  
: 0.9255

mnist.py

Describe what to build next

Agent Auto

20°C Clear 12:48 AM 31-01-2026

File Edit Selection View Go Run Terminal Help ← → ⌂ Digit Recognition

EXPLORER OPEN EDITORS CHAT

Welcome mnist\_cnn.py 3, U mnistpy 2, U README.md requirements.txt

mnist\_cnn.py Digit Recognition (MNIST D... 3, U  
X mnist.py Digit Recognition (MNIST D... 2, U  
README.md Digit Recognition (MNIST D... U  
requirements.txt Digit Recognition (MNIST D... U

DIGIT RECOGNITION

> Assignment\_3.Image Classification  
> Digit Recognition (MNIST Dataset)  
digit\_recognition\_model.h5  
mnist\_cnn.py  
mnist.py  
README.md  
requirements.txt

Figure 1

Predicted Digit: 2



JavaSE-22

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: 0.9692  
: 0.9255

mnist.py

Describe what to build next

Agent Auto

20°C Clear 12:48 AM 31-01-2026

## Digit Recognition (MNIST)



Clear

Predict

Predicted Digit: 2

Elements Console Sources Network > 1 School :

Default levels ▾ | No Issues |

1 hidden

✖ ► Uncaught (in promise) TypeError: tf.data.mnist is not a function  
at loadMNIST (main.js:63:31)  
at trainModel (main.js:77:28)  
at main.js:87:1

>

Notice No. 30\_TF x | Machine Learning x | Practical Index x | Lab Assignments x | System Specs for x | Inbox (4,348) - p x | Digit Recognition x | Digital Recognition x +

127.0.0.1:5500/All%20Practicals%20using%20tensorflow/Practical\_2/Digit\_Recognition\_MNIST/index.html

School :

Elements Console Sources Network >

Console

Filter Default levels ▾ No Issues

[null,5,5,32] 0 tfjs@latest:17

flatten\_flatten1 (Flatten) [[null,5,5,32]] 0 tfjs@latest:17

dense\_Dense1 (Dense) [[null,800]] 102528 tfjs@latest:17

dense\_Dense2 (Dense) [[null,128]] 1290 tfjs@latest:17

Total params: 108618 tfjs@latest:17

Trainable params: 108618 tfjs@latest:17

Non-trainable params: 0 tfjs@latest:17

===== tfjs@latest:17

Training started... main.js:97

Epoch 1: Accuracy = 91.80% main.js:105

Epoch 2: Accuracy = 97.68% main.js:105

Epoch 3: Accuracy = 98.33% main.js:105

Epoch 4: Accuracy = 98.68% main.js:105

Epoch 5: Accuracy = 98.88% main.js:105

Tensor 0.98499995470047 tfjs@latest:17

Training completed main.js:115

> |

Console AI assistance What's new

1

11:50 PM 02-02-2026 ENG IN 100%

Notice No. 30\_TF x | Machine Learnin x | Practical Index x | Lab Assignments x | System Specs for x | Inbox (4,348) - p x | Digit Recognition x | Assignment 1 | C x +

127.0.0.1:5500/All%20Practicals%20using%20tensorflow/Practical\_2/assignment/Assignment\_1\_CNN\_Training/index.html

School :

Elements Console Sources Network >

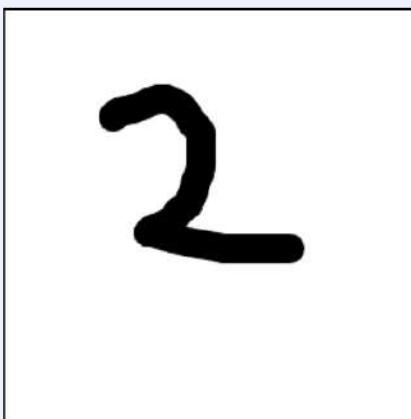
top Filter Default levels ▾ No Issues

```
max_pooling2d_MaxPooling2D1 [[null,26,26,8]] tfjs@latest:17  
[null,13,13,8] 0  
===== tfjs@latest:17  
  
flatten_Flatten1 (Flatten) [[null,13,13,8]] tfjs@latest:17  
[null,1352] 0  
===== tfjs@latest:17  
  
dense_Dense1 (Dense) [[null,1352]] tfjs@latest:17  
[null,64] 86592  
===== tfjs@latest:17  
  
dense_Dense2 (Dense) [[null,64]] tfjs@latest:17  
[null,10] 650  
===== tfjs@latest:17  
  
Total params: 87322 tfjs@latest:17  
Trainable params: 87322 tfjs@latest:17  
Non-trainable params: 0 tfjs@latest:17  
===== tfjs@latest:17  
  
Training Assignment-1 CNN... main.js:95  
Epoch 1 Accuracy: 61.00% main.js:103  
Epoch 2 Accuracy: 86.04% main.js:103  
Epoch 3 Accuracy: 89.60% main.js:103  
Epoch 4 Accuracy: 90.90% main.js:103  
Epoch 5 Accuracy: 92.56% main.js:103  
Assignment-1 Completed main.js:110  
>
```

Console AI assistance What's new

1 ENG IN 100% 11:50 PM 02-02-2026

## Assignment 2: Draw & Predict Digit



Clear

Predict

**Prediction: 2**

Elements Console Sources Network >  
top Filter Default levels ▾ No Issues

Live reload enabled.

index.html:64

> |

# CNN vs Dense Network

Machine Learning Tools Lab – Assignment 3

Train Dense Model

Train CNN Model

```
Training CNN Model...
CNN Epoch 1 Accuracy: 0.1180
CNN Epoch 2 Accuracy: 0.1260
CNN Epoch 3 Accuracy: 0.1360
CNN Epoch 4 Accuracy: 0.1370
CNN Epoch 5 Accuracy: 0.1440
```

CNN Model Training Complete

TensorFlow.js | Image Classification Demo



Live reload enabled.

index.html:137

>

