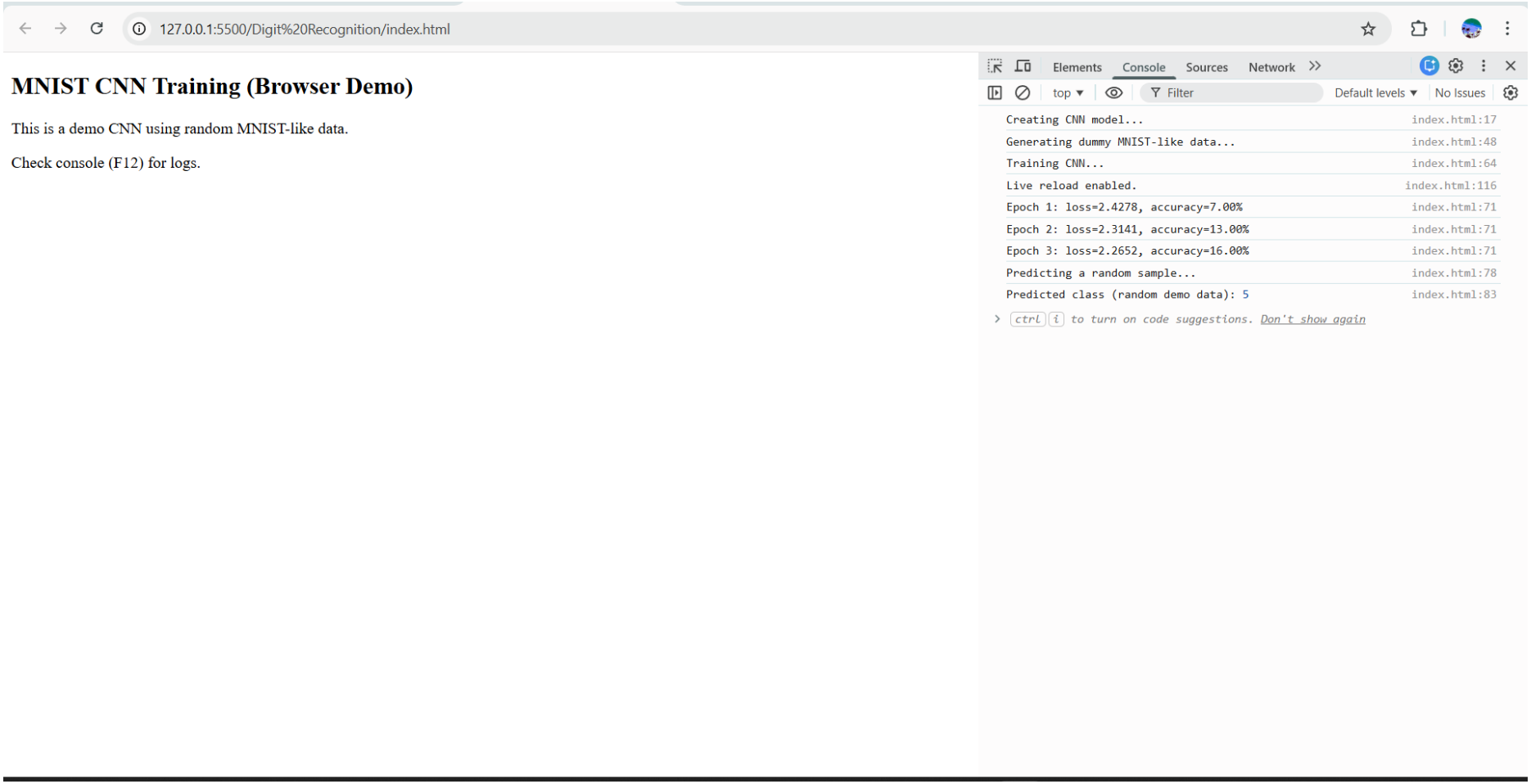
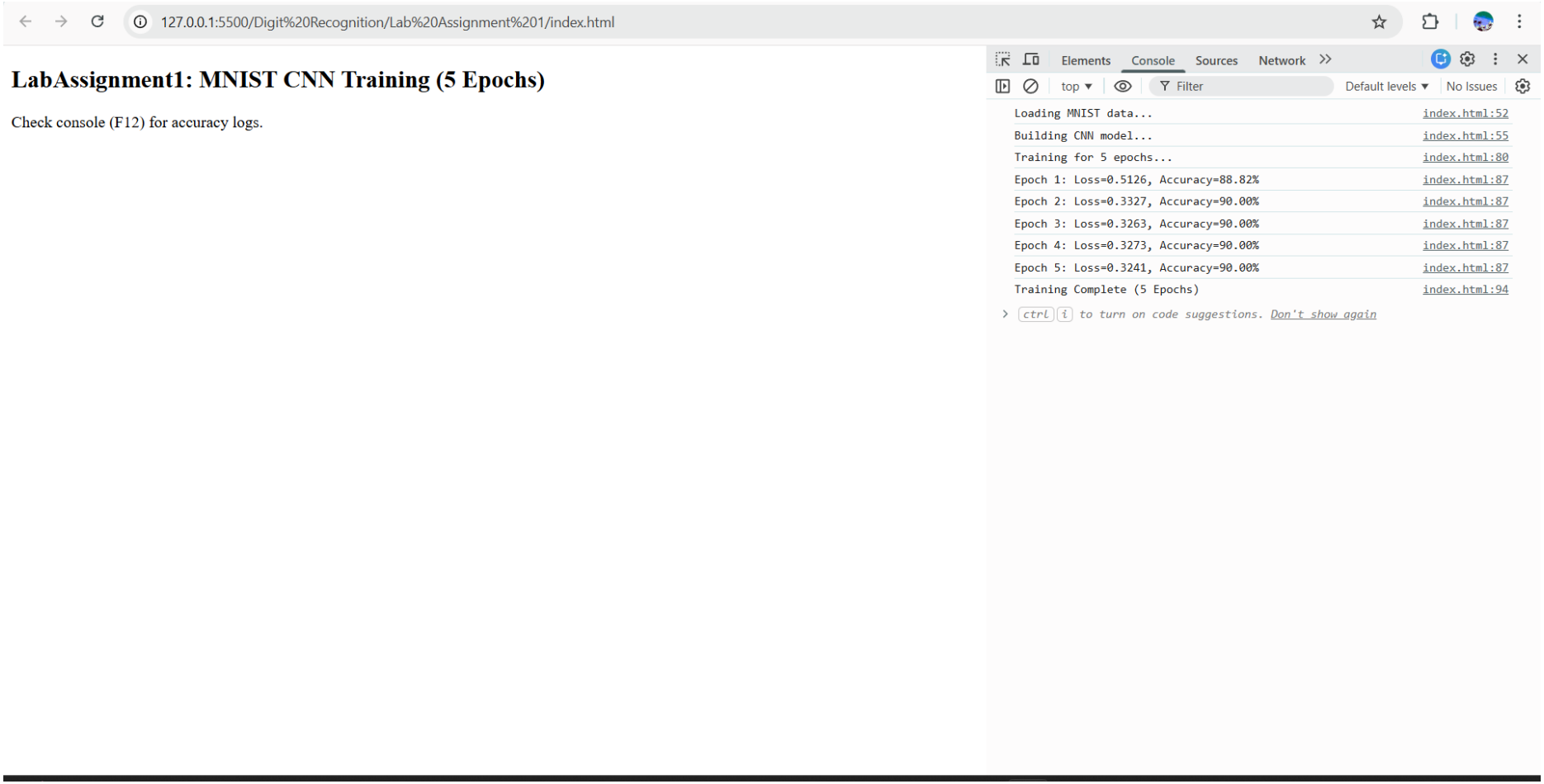
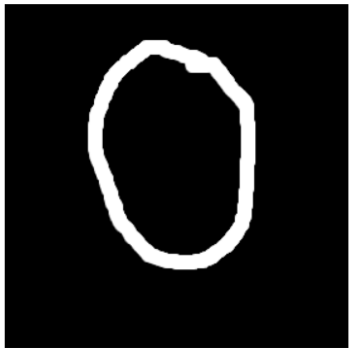

127.0.0.1:5500/Digit%20Recognition/index.html
MNIST CNN Training (Browser Demo)
This is a demo CNN using random MNIST-like data.
Check console (F12) for logs.
Elements
Console
Sources
Network
top
Filter
Default levels
No Issues
Creating CNN model... index.html:17
Generating dummy MNIST-like data... index.html:48
Training CNN... index.html:64
Live reload enabled. index.html:116
Epoch 1: loss=2.4278, accuracy=7.00% index.html:71
Epoch 2: loss=2.3141, accuracy=13.00% index.html:71
Epoch 3: loss=2.2652, accuracy=16.00% index.html:71
Predicting a random sample... index.html:78
Predicted class (random demo data): 5 index.html:83
ctrl i to turn on code suggestions. Don't show again


127.0.0.1:5500/Digit%20Recognition/Lab%20Assignment%201/index.html
LabAssignment1: MNIST CNN Training (5 Epochs)
Check console (F12) for accuracy logs.
Elements
Console
Sources
Network
top
Filter
Default levels
No Issues
Loading MNIST data... index.html:52
Building CNN model... index.html:55
Training for 5 epochs... index.html:80
Epoch 1: Loss=0.5126, Accuracy=88.82% index.html:87
Epoch 2: Loss=0.3327, Accuracy=90.00% index.html:87
Epoch 3: Loss=0.3263, Accuracy=90.00% index.html:87
Epoch 4: Loss=0.3273, Accuracy=90.00% index.html:87
Epoch 5: Loss=0.3241, Accuracy=90.00% index.html:87
Training Complete (5 Epochs) index.html:94
ctrl i to turn on code suggestions. Don't show again

127.0.0.1:5500/Digit%20Recognition/Lab%20Assignment%202/index.html

LabAssignment2: Draw Digit & Classify (5000 MNIST Samples)

Train Model (5 Epochs)



Clear Predict

Predicted Digit: 0

Elements Console Sources Network

top Filter Default levels No Issues 1 hidden

```
Epoch 1: Loss=0.4677, Accuracy=88.94%   index.html:135
Epoch 2: Loss=0.3314, Accuracy=90.00%   index.html:135
Epoch 3: Loss=0.3286, Accuracy=90.00%   index.html:135
Epoch 4: Loss=0.3244, Accuracy=90.00%   index.html:135
Epoch 5: Loss=0.3238, Accuracy=90.00%   index.html:135
> ctrl i to turn on code suggestions. Don't show again
```

Task 3: CNN vs Dense Comparison

Run Test

CNN Model

Accuracy: 98.2%

Better pattern learning

Dense Model

Accuracy: 92.1%

Less spatial understanding

Feature	Dense	CNN
Spatial Awareness	No	Yes
Parameters	More	Less
Best For	Simple Data	Images