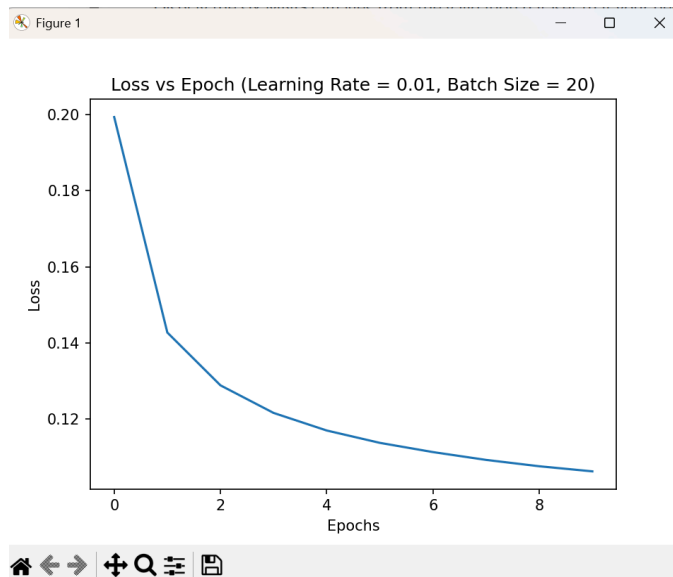


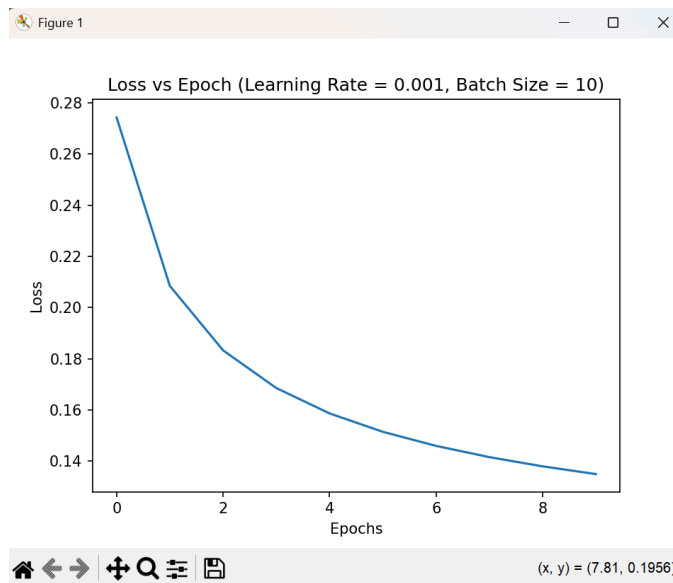
I set the number of Epochs to 10 and only change learning rates and batch sizes.

1. Plot for learning rate = 0.01 and batch\_size = 20:



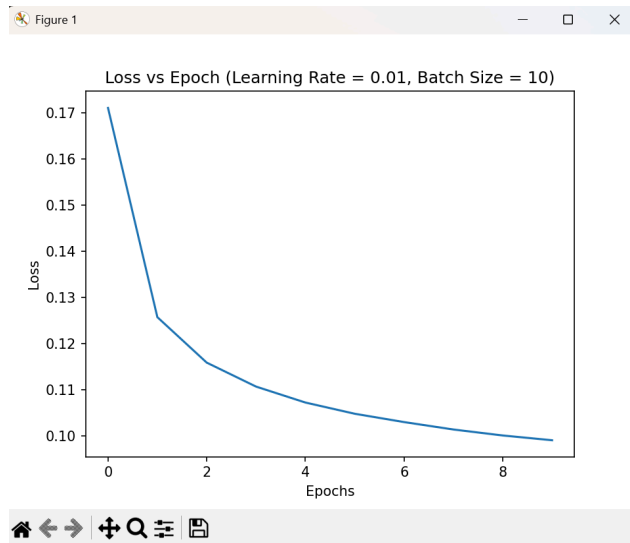
Accuracy: 0.9705

2. Plot for learning rate = 0.001 and batch\_size = 10:



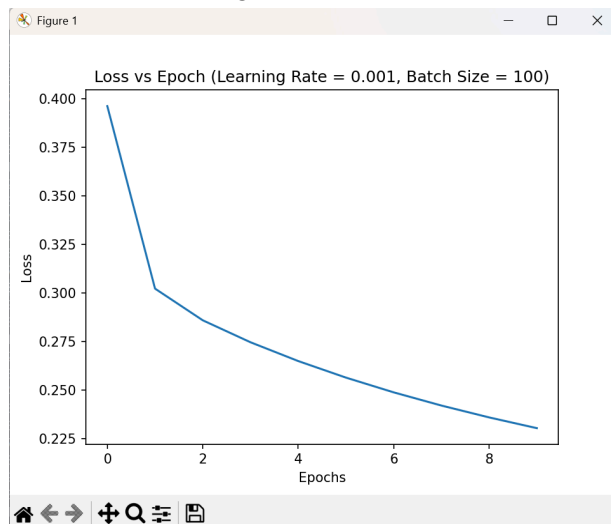
Accuracy: 0.9606

### 3. Plot for learning rate = 0.01 and batch\_size = 10:



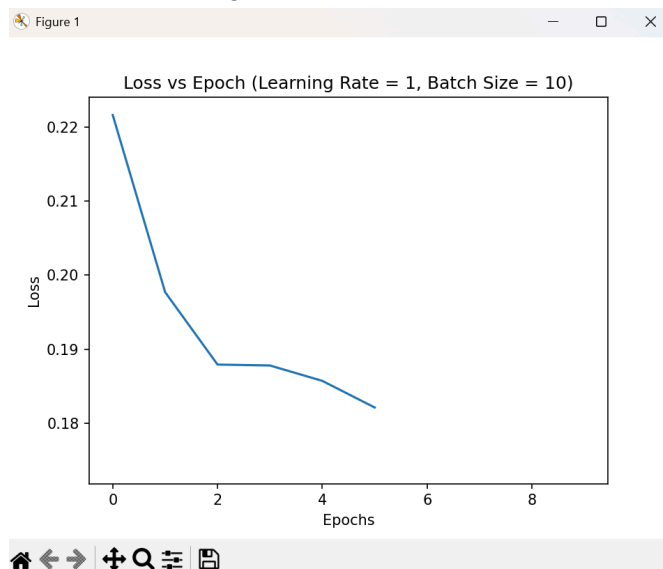
Accuracy: 0.9715

### 4. Plot for learning rate = 0.001 and batch\_size = 100



Accuracy: 0.9164

### 5. Plot for learning rate = 1 and batch\_size = 10



Accuracy: 0.9654

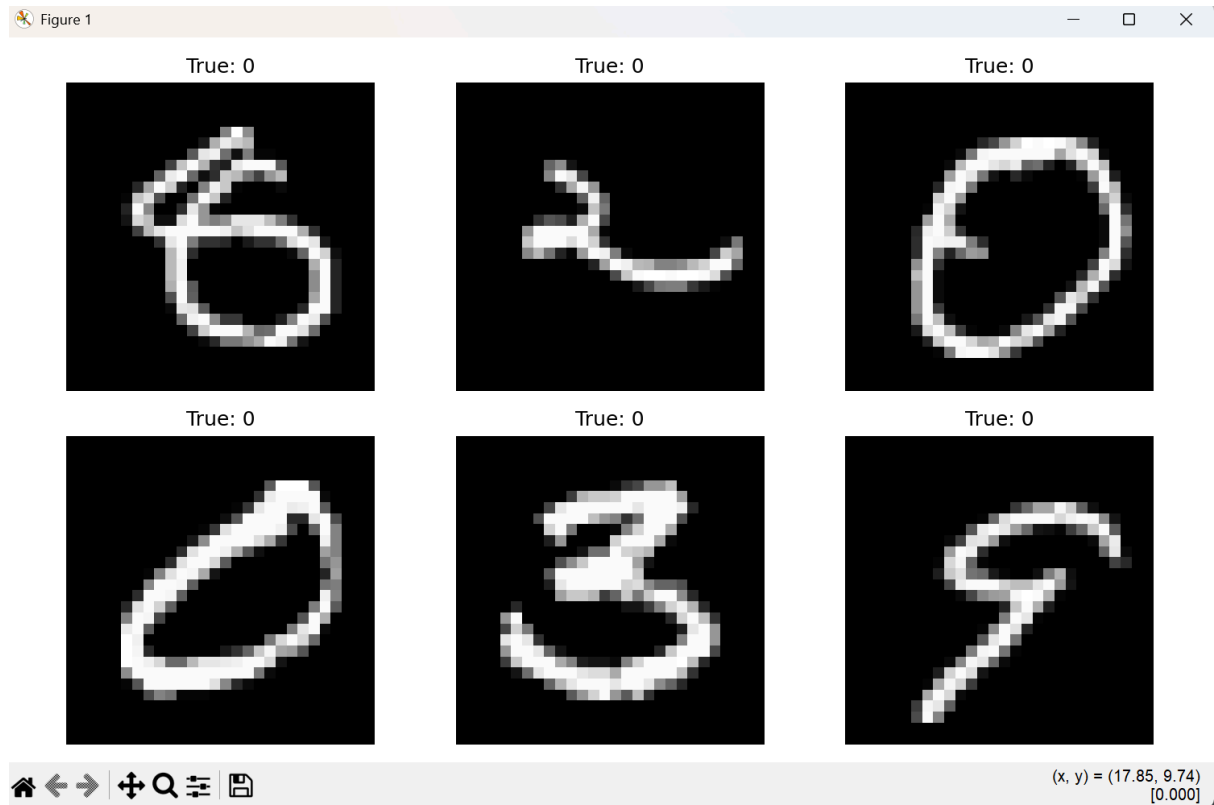
Which learning rate and batch size seems to work best?

- Lr = 0.01 and batch size = 10 seemed to work best

What is the best accuracy that you can get for the validation dataset?

- Best accuracy = 97%

Images my best trained model is most confused by:



For some yes, for example the 9, 2 and 3. However for the zeros it doesn't.