



## Epochs

```
Epoch: 95 - Cost: 0.102 Valid Accuracy: 0.869
Epoch: 96 - Cost: 0.101 Valid Accuracy: 0.869
Epoch: 97 - Cost: 0.101 Valid Accuracy: 0.869
Epoch: 98 - Cost: 0.1 Valid Accuracy: 0.869
Epoch: 99 - Cost: 0.1 Valid Accuracy: 0.869
Test Accuracy: 0.8696000006198883
```

From looking at the output above, you can see the model doesn't increase the validation accuracy after epoch 80. Let's see what happens when we increase the learning rate.

*learn\_rate = 0.1*

```
Epoch: 76 - Cost: 0.214 Valid Accuracy: 0.752
Epoch: 77 - Cost: 0.21 Valid Accuracy: 0.756
Epoch: 78 - Cost: 0.21 Valid Accuracy: 0.756
...
Epoch: 85 - Cost: 0.207 Valid Accuracy: 0.756
Epoch: 86 - Cost: 0.209 Valid Accuracy: 0.756
Epoch: 87 - Cost: 0.205 Valid Accuracy: 0.756
Epoch: 88 - Cost: 0.208 Valid Accuracy: 0.756
Epoch: 89 - Cost: 0.205 Valid Accuracy: 0.756
Epoch: 90 - Cost: 0.202 Valid Accuracy: 0.756
Epoch: 91 - Cost: 0.207 Valid Accuracy: 0.756
Epoch: 92 - Cost: 0.204 Valid Accuracy: 0.756
Epoch: 93 - Cost: 0.206 Valid Accuracy: 0.756
Epoch: 94 - Cost: 0.202 Valid Accuracy: 0.756
Epoch: 95 - Cost: 0.2974 Valid Accuracy: 0.756
Epoch: 96 - Cost: 0.202 Valid Accuracy: 0.756
Epoch: 97 - Cost: 0.2996 Valid Accuracy: 0.756
Epoch: 98 - Cost: 0.203 Valid Accuracy: 0.756
```