

Network Architecture:

Layer (type)	Output Shape	Param #
max_pooling2d (MaxPooling2D)	(None, 7, 7, 1)	0
conv2d (Conv2D)	(None, 7, 7, 7)	70
flatten (Flatten)	(None, 343)	0
dense (Dense)	(None, 512)	176128
dropout (Dropout)	(None, 512)	0
dense_1 (Dense)	(None, 10)	5130
Total params: 181,328		
Trainable params: 181,328		
Non-trainable params: 0		

Experiment performance:

- A. Provided code: 83.48%
- B. 40 Epochs: 87.47%
- C. Remove 2x2 Maxpool after convolution: 88.6%
- D. Add Dropouts 0.25: 88.98%
- E. Add Regularization 0.001: 88.35%
- F. Change Regularization 0.0001: 89.22%
- G. Dropouts 0.5: 89.7%
- H. Add preprocessing Erosion Kernel size 5x5: 30.78%
- I. Change Kernel size 2x2: **90.83%**