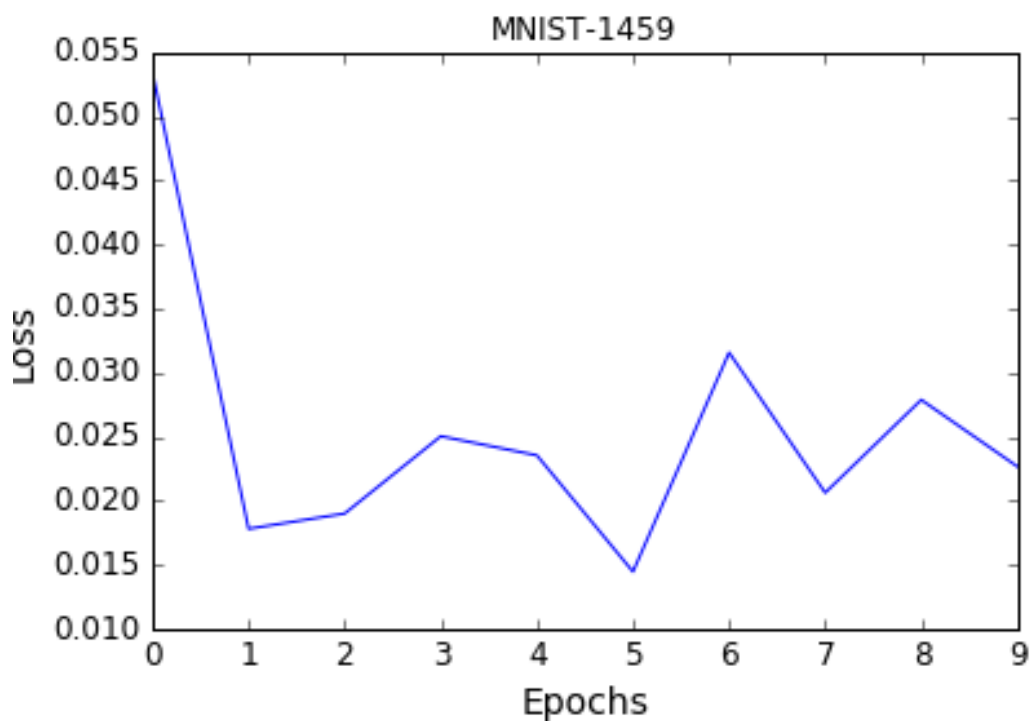


1)Test loss curve on MNIST-1459

Training...

```
loss= 0.0534242 epoch= 0
0 Train accuracy: 0.980891 Test accuracy: 0.982329
loss= 0.0178173 epoch= 1
1 Train accuracy: 0.994847 Test accuracy: 0.994027
loss= 0.0190102 epoch= 2
2 Train accuracy: 0.994664 Test accuracy: 0.993031
loss= 0.025045 epoch= 3
3 Train accuracy: 0.993478 Test accuracy: 0.991538
loss= 0.023555 epoch= 4
4 Train accuracy: 0.996169 Test accuracy: 0.994276
loss= 0.0144716 epoch= 5
5 Train accuracy: 0.997309 Test accuracy: 0.994276
loss= 0.0315739 epoch= 6
6 Train accuracy: 0.994208 Test accuracy: 0.992285
loss= 0.0206326 epoch= 7
7 Train accuracy: 0.996534 Test accuracy: 0.994774
loss= 0.0278856 epoch= 8
8 Train accuracy: 0.995485 Test accuracy: 0.991538
loss= 0.0226787 epoch= 9
9 Train accuracy: 0.997309 Test accuracy: 0.995271
```



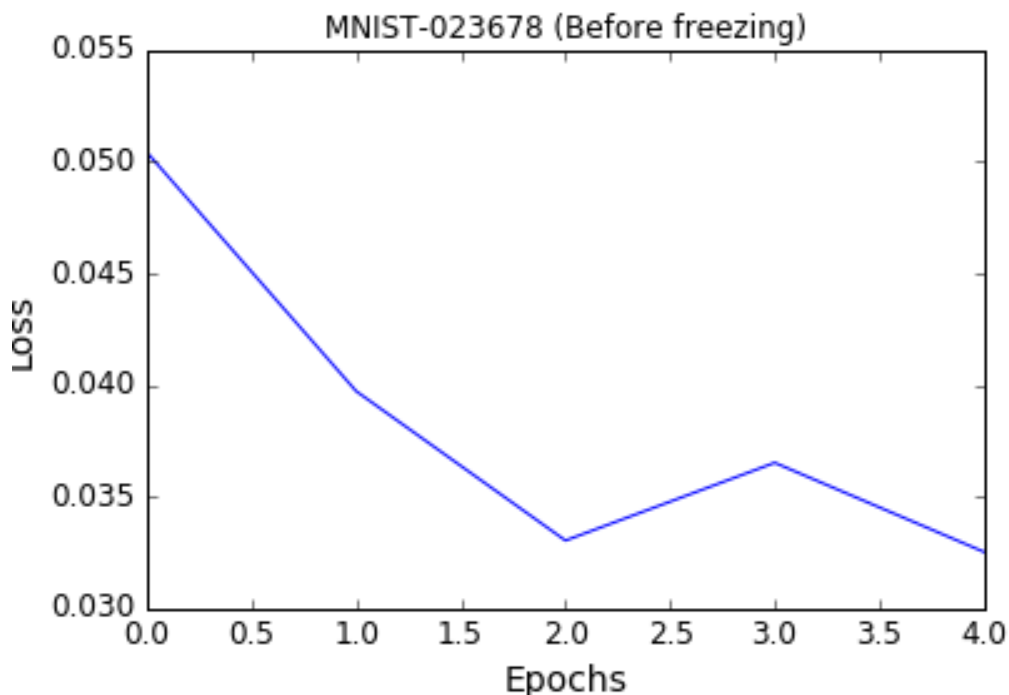
2)Test loss curve on transferred MNIST-023678(before freezing):

Training 023678...

INFO:tensorflow:Restoring parameters from ./my_model_1459.ckpt

```
loss= 0.0504211 epoch= 0
0 Train accuracy: 0.986666 Test accuracy: 0.98345
loss= 0.0397371 epoch= 1
1 Train accuracy: 0.990445 Test accuracy: 0.9888
loss= 0.0330578 epoch= 2
2 Train accuracy: 0.994195 Test accuracy: 0.990806
```

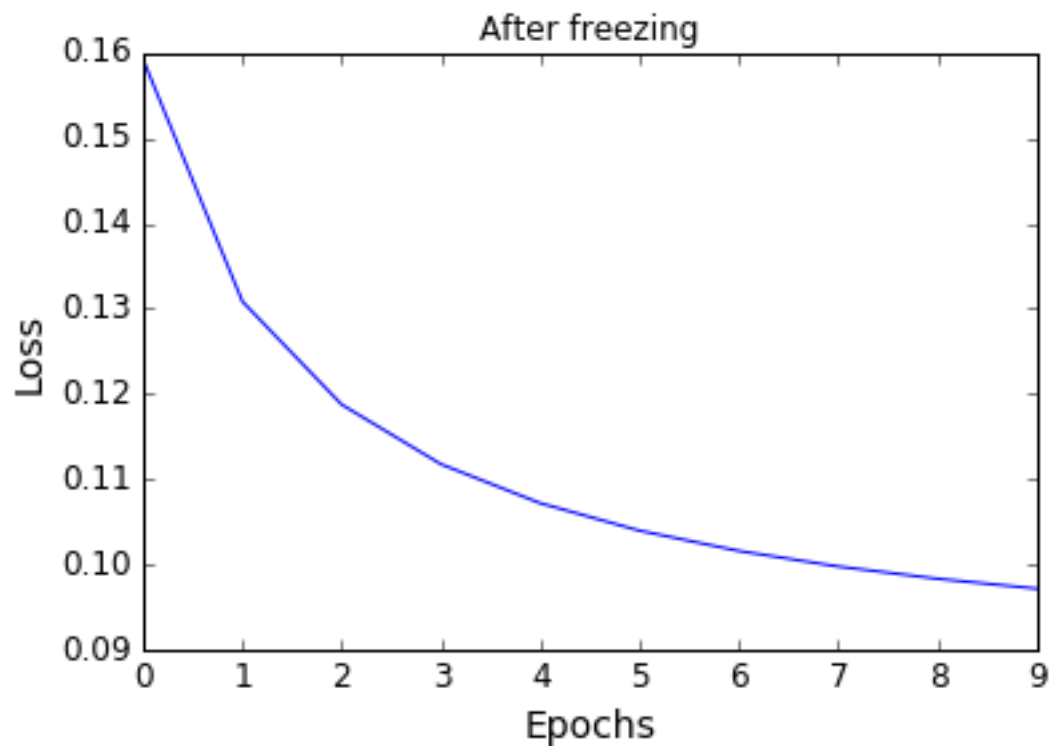
loss= 0.0365385 epoch= 3
3 Train accuracy: 0.995132 Test accuracy: 0.990471
loss= 0.0325491 epoch= 4
4 Train accuracy: 0.996311 Test accuracy: 0.990304



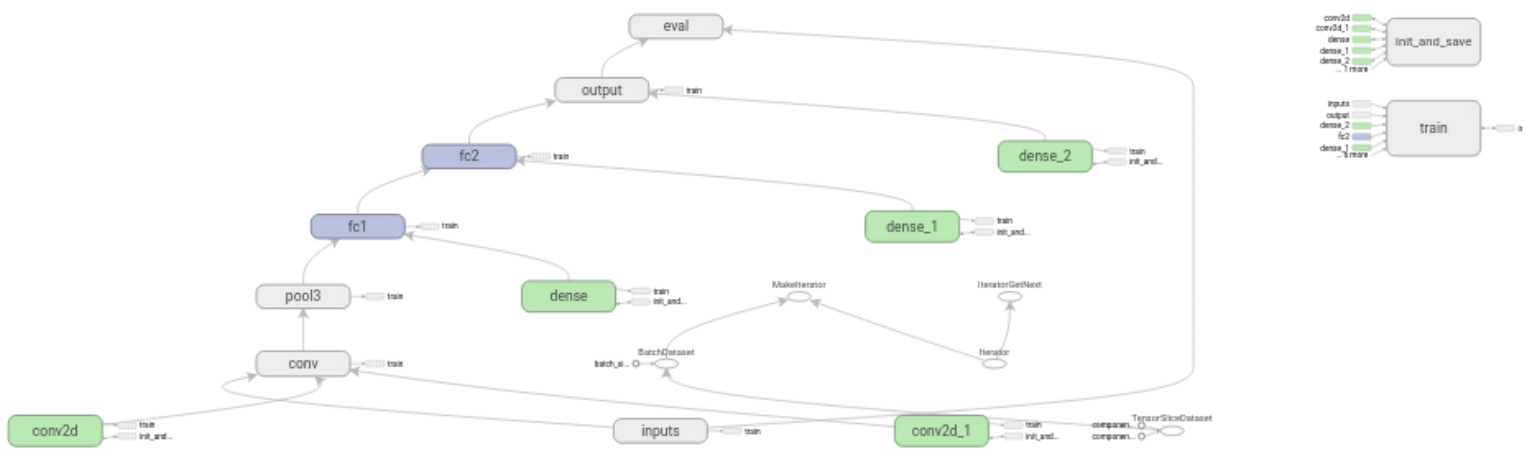
3)Test loss curve on transferred MNIST-023678(after freezing):
Training 023678...

INFO:tensorflow:Restoring parameters from ./my_model_1459.ckpt

loss= 0.159238 epoch= 0
0 Train accuracy: 0.947812 Test accuracy: 0.951354
loss= 0.130851 epoch= 1
1 Train accuracy: 0.958002 Test accuracy: 0.958542
loss= 0.118758 epoch= 2
2 Train accuracy: 0.962537 Test accuracy: 0.962722
loss= 0.111766 epoch= 3
3 Train accuracy: 0.964473 Test accuracy: 0.964728
loss= 0.10719 epoch= 4
4 Train accuracy: 0.966529 Test accuracy: 0.966566
loss= 0.103971 epoch= 5
5 Train accuracy: 0.96804 Test accuracy: 0.966734
loss= 0.10159 epoch= 6
6 Train accuracy: 0.969189 Test accuracy: 0.967235
loss= 0.0997656 epoch= 7
7 Train accuracy: 0.969945 Test accuracy: 0.967904
loss= 0.0983272 epoch= 8
8 Train accuracy: 0.970248 Test accuracy: 0.968907
loss= 0.0971675 epoch= 9
9 Train accuracy: 0.97061 Test accuracy: 0.969408

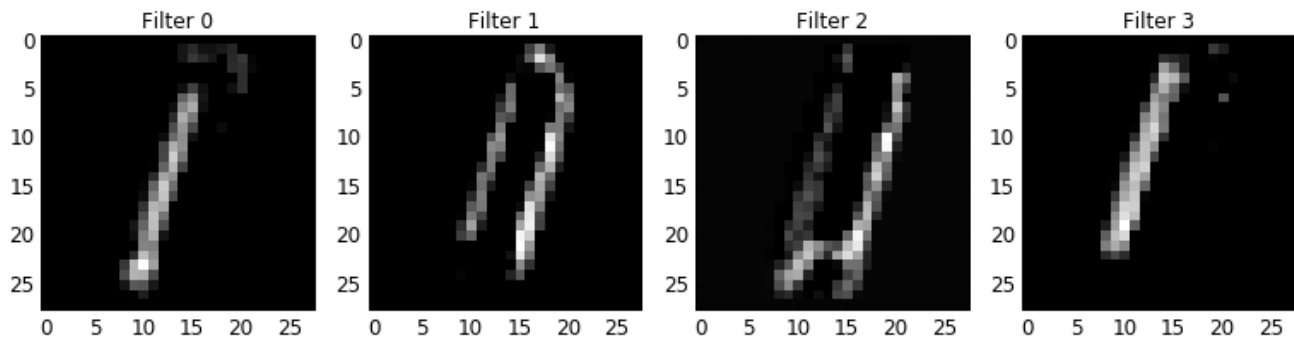


4)Final Execution Graph :

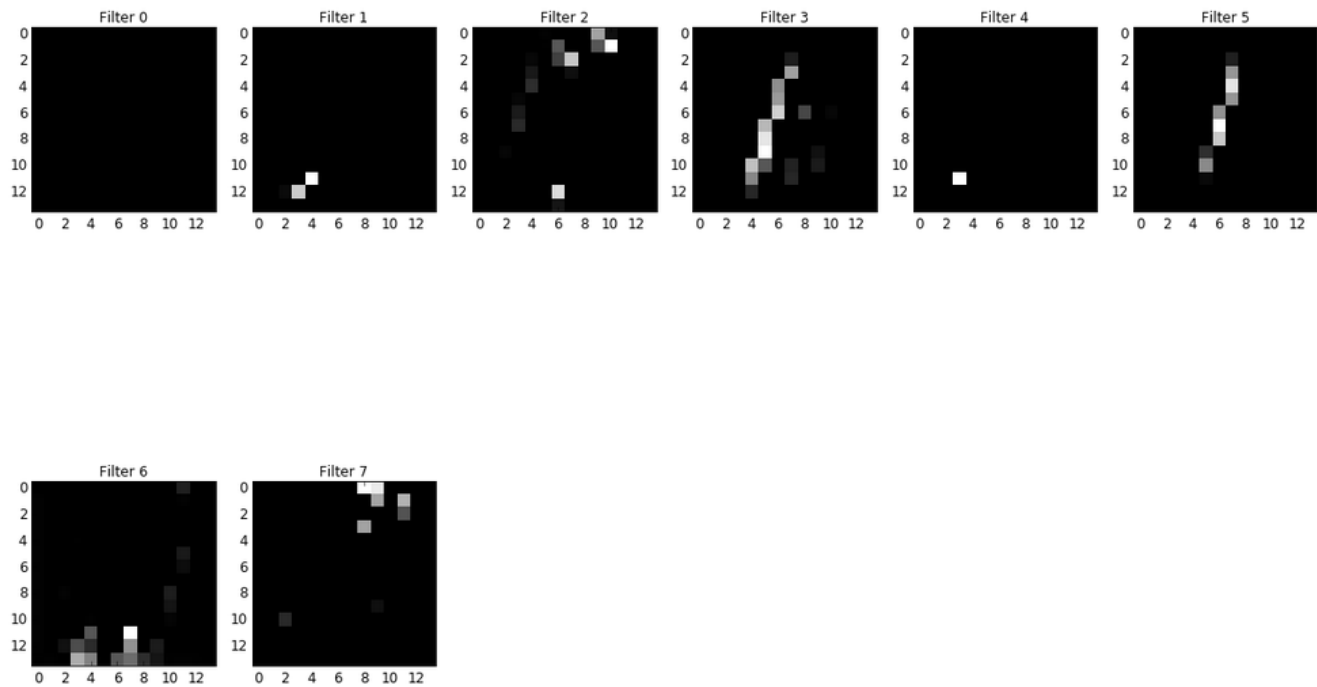


5) Visualized filter maps for bonus 2

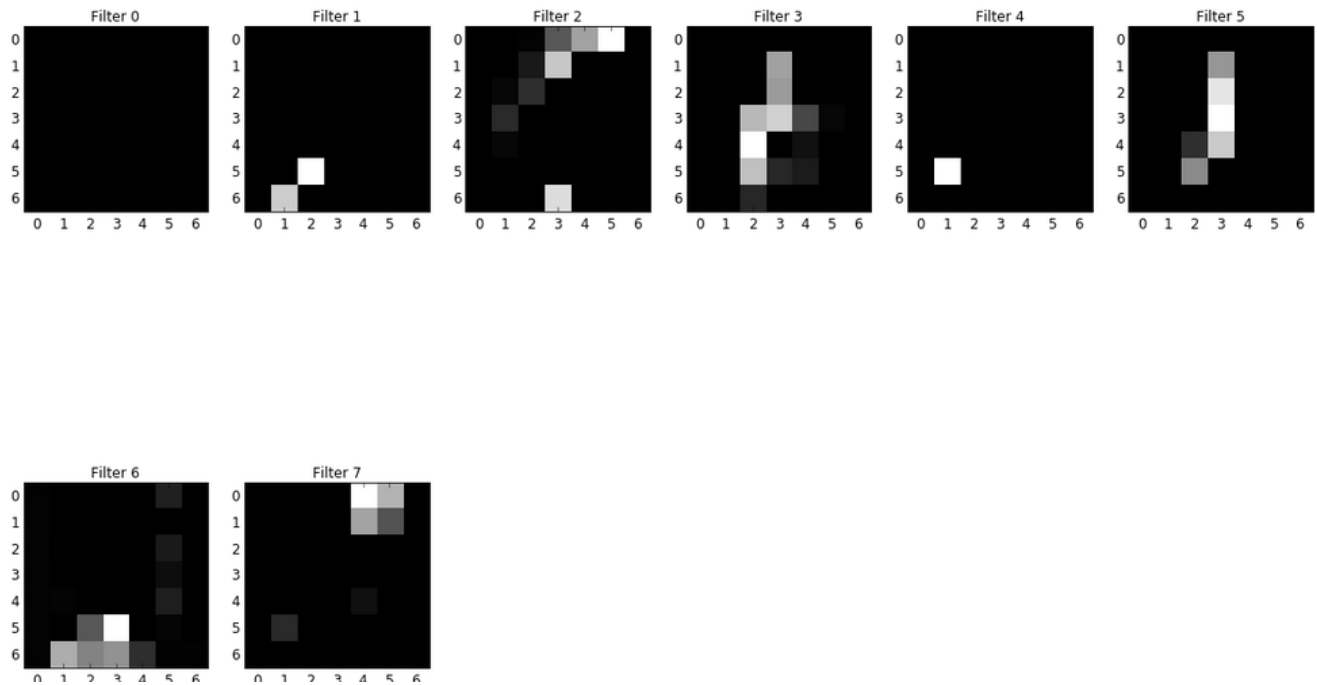
--Convolution Layer 1 :



--Convolution Layer 2:

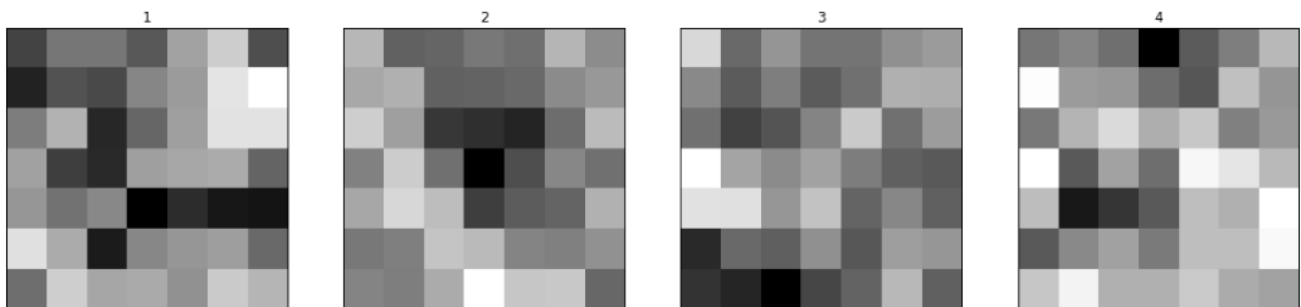


--Pooling Layer :



--Plot Convolution Layer Weights:

INFO:tensorflow:Restoring parameters from ./my_model_1459.ckpt
(7, 7, 1, 4)



Please refer the code for implementation of dropout regularization.