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Stat M231
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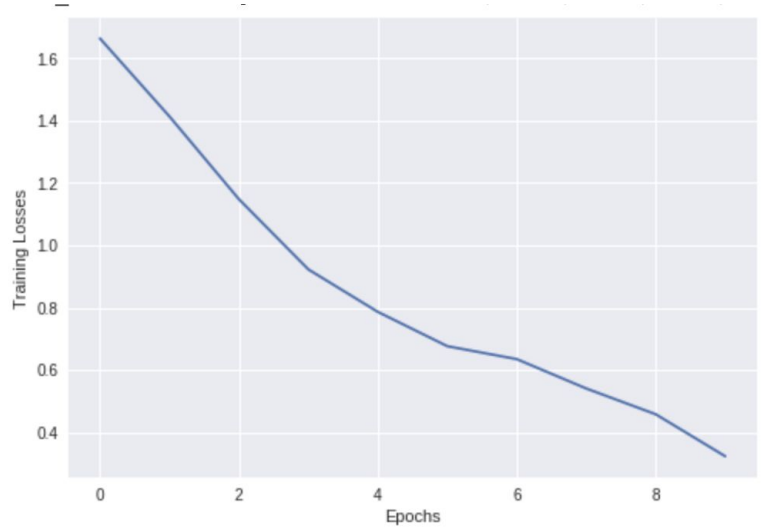
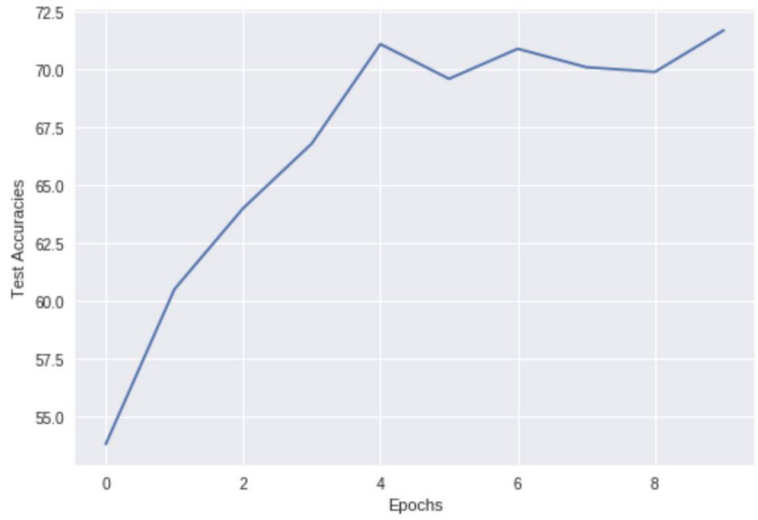
Project 0 - Convolutional Neural Networks

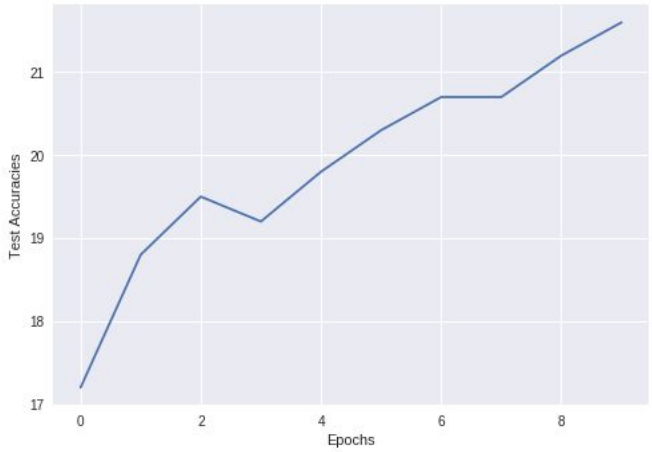
1c) Plot the training loss and test accuracy over epochs in two Figures.



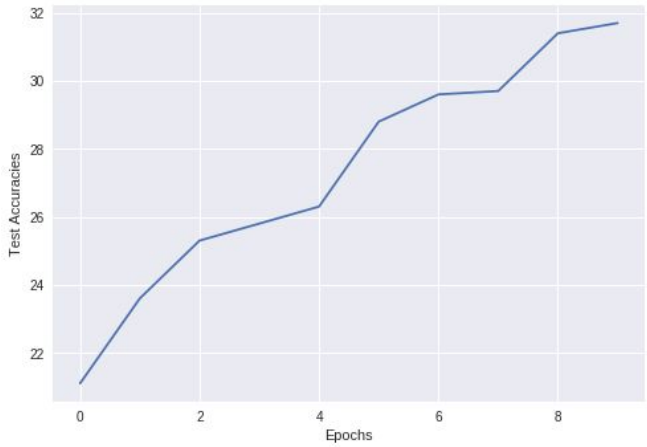


2b) Compare the final test accuracies for (i. Block1, Block5 ii. Block1, Block2, Block5 iii. Block1, Block2, Block3, Block5) in a Table.

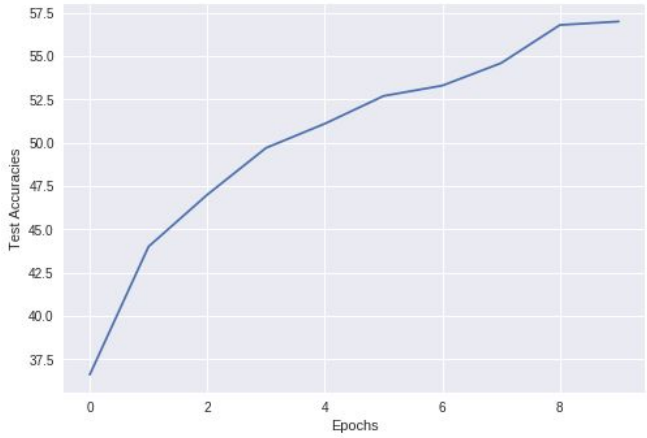
i) ConvNet with Block1, Block5 - Test Accuracies (final accuracy = 21.6%)



ii) ConvNet with Block1, Block2, Block5 - Test Accuracies (final accuracy = 31.7%)



iii) ConvNet with Block1, Block2, Block3, Block5 - Test Accuracies (final accuracy = 56.99%)

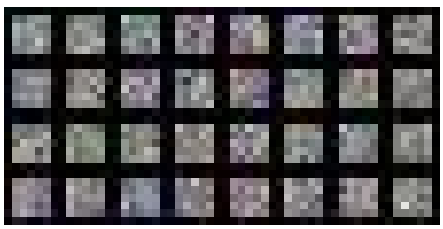


Summary of Modified ConvNet Test Accuracies (for 10 epochs) in Table

Blocks 1,5	Blocks 1,2,5	Blocks 1,2,3,5
17.2	20.4	35.199999999999996
18.8	25.3	43.4
19.5	25.3	47.099999999999994
19.2	26.700000000000003	50.1
19.8	27.6	52.800000000000004
20.3	28.499999999999996	54.0
20.7	28.499999999999996	55.1
20.7	28.7	56.49999999999999
21.2	28.999999999999996	56.8
21.6	31.7	56.99

3a) Plot the learned 32 filters of the first convolutional layer in LeNet.

Plot_kernels_on_grid output:



3b) Plot the filter response maps for a given sample image of CIFAR-10.