Report for part_b

Test data = 40000
Val_data = 10000
Test_data =10000 (without labels)

I have tried VggNet. First I tried with 4 layer of convolution 32,32,64,64 with maxpool and batch normalization. Got an accuracy approx. ~85%. Then I added 2 more layer 128, 128. Added checkpoint and scheduled learning rate and early stopping criteria.

Results:- 88.75 % accuracy on validation data set

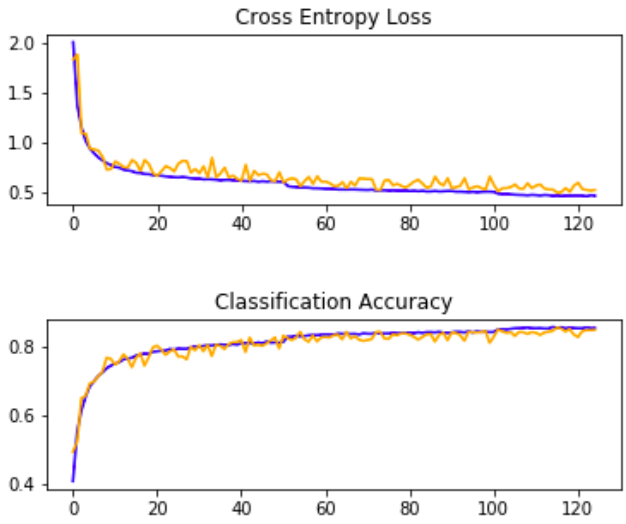
```
Epoch 125/125
625/625 [==============================] - 37s 59ms/step - loss: 0.4037 - acc: 0.8935 - val_loss: 0.4652 - val_acc: 0.8790

Epoch 00125: val_acc did not improve from 0.88750
```

When I removed the early stopping results me an accuracy of 88.99%. (This is my best model)

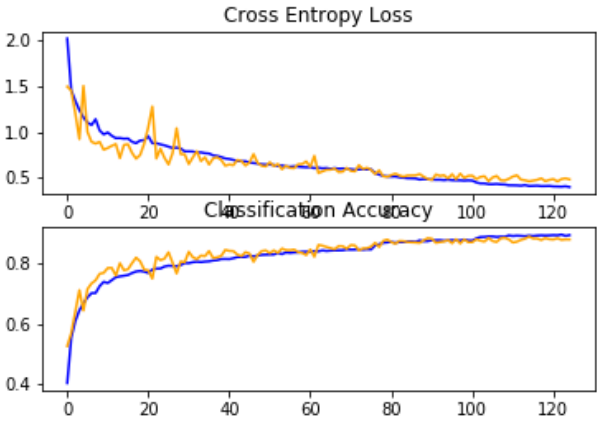
```
Epoch 125/125
625/625 [==============================] - 40s 65ms/step - loss: 0.4014 - acc: 0.8947 - val_loss: 0.4846 - val_acc:

Epoch 00125: val_acc did not improve from 0.88990
```

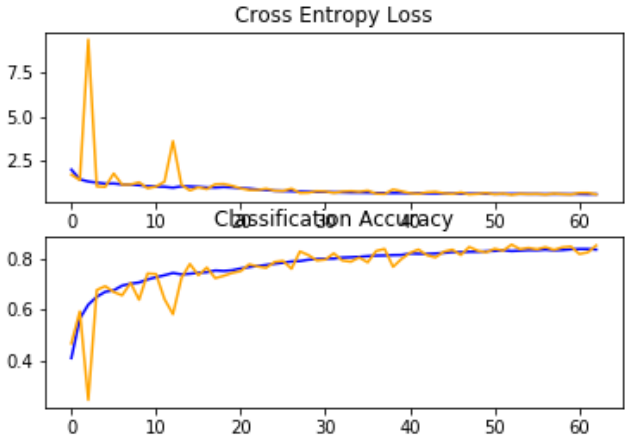


When using 4 layer convolution only and no early stopping

Below graphs are for 6 layer of convolution



When I didn’t applied early stopping



When I applied early stoping