

## RESULT AND ANALYSIS

Brown spot (Brown spot)



Bacterial leaf blight (Bacterial leaf blight)



Bacterial leaf blight (Bacterial leaf blight)



Bacterial leaf blight (Bacterial leaf blight)



Brown spot (Brown spot)



Bacterial leaf blight (Bacterial leaf blight)



Disease Prediction

Brown spot (Brown spot)



Brown spot (Brown spot)



Brown spot (Brown spot)



Leaf smut (Leaf smut)



Leaf smut (Leaf smut)



Brown spot (Brown spot)



Disease Prediction

Bacterial leaf blight (Bacterial leaf blight)



Bacterial leaf blight (Bacterial leaf blight)



Bacterial leaf blight (Bacterial leaf blight)



Leaf smut (Leaf smut)



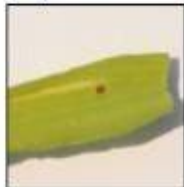
Leaf smut (Leaf smut)



Bacterial leaf blight (Bacterial leaf blight)



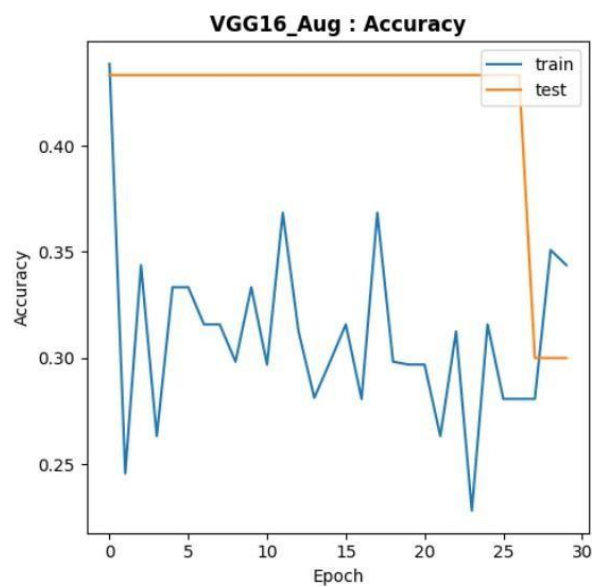
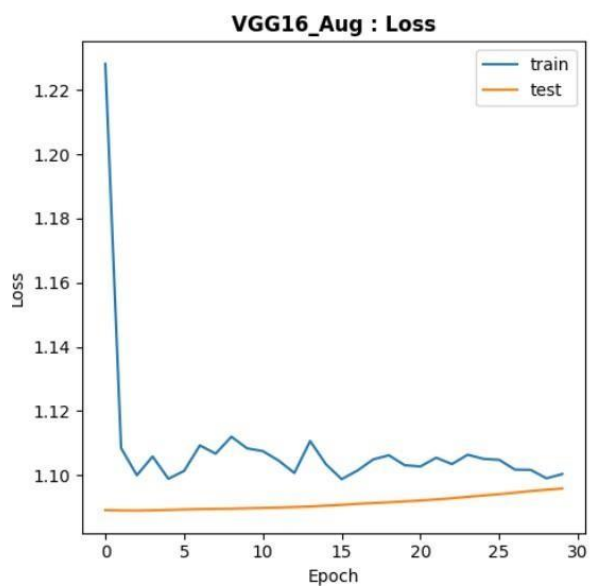
Brown spot (Brown spot)



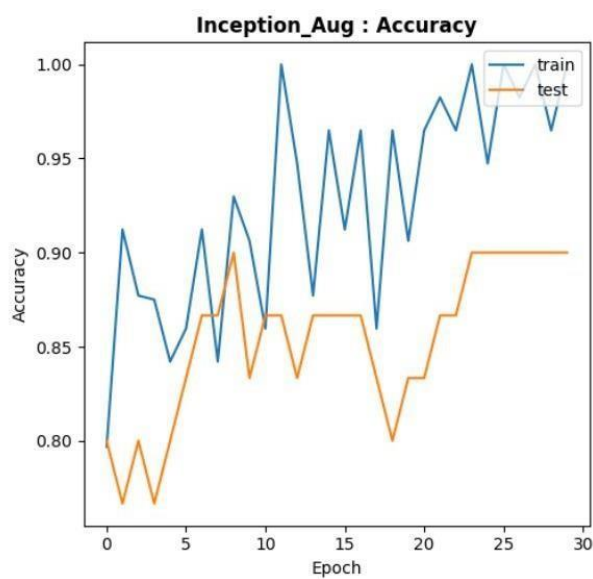
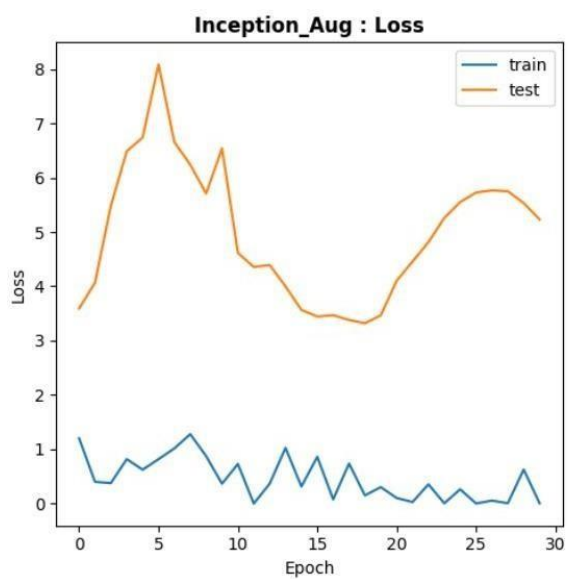
Leaf smut (Leaf smut)



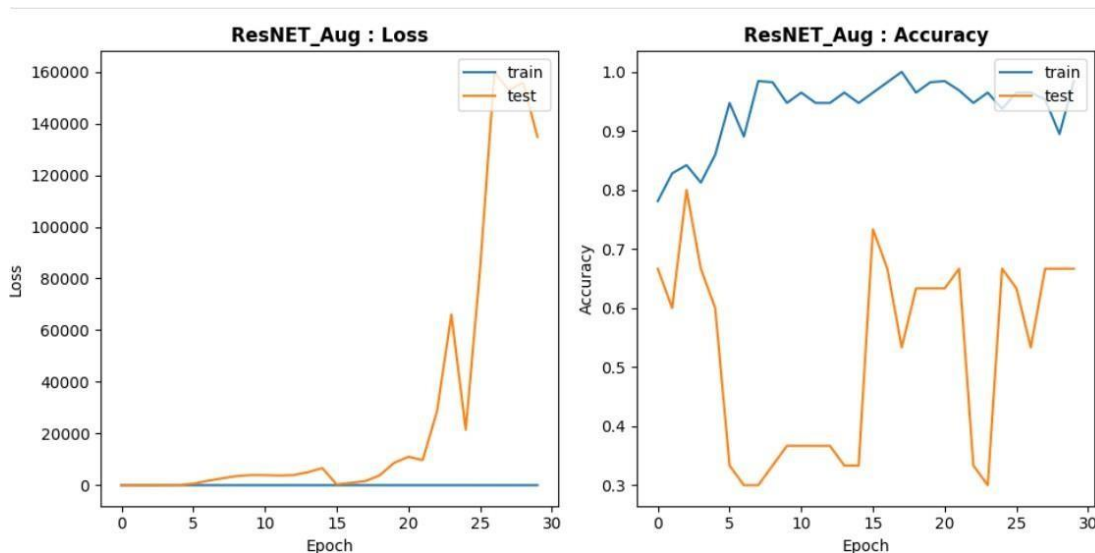
Disease Prediction



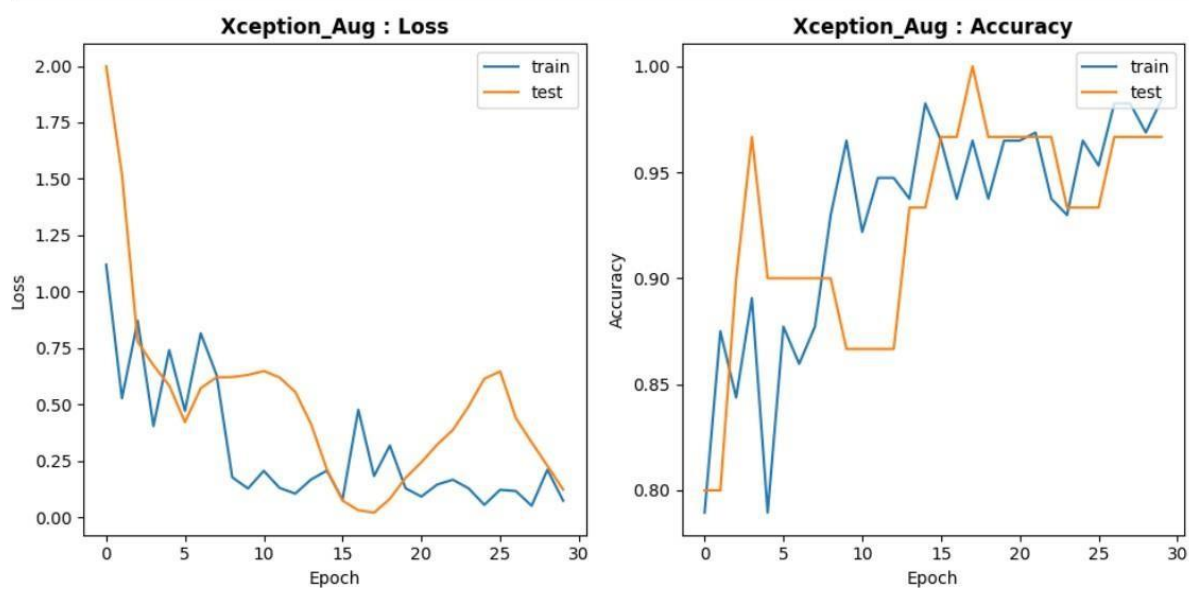
VGG16



Inception

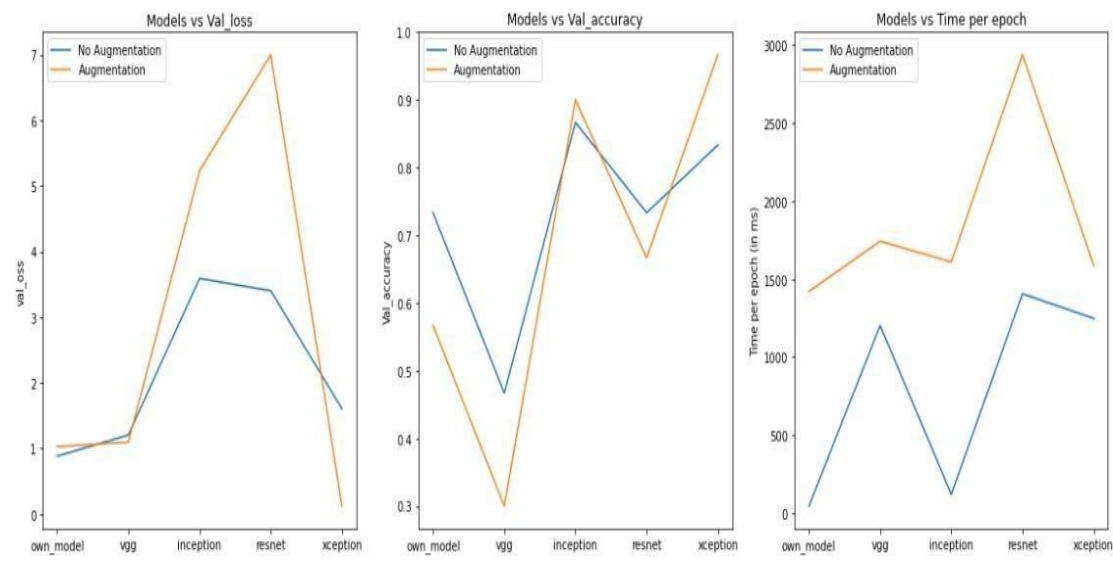


ResNET



Xception

COMPARISON AND ANALYSIS



Model Comparison

COMPARISON TABLE

	model	loss	val_loss	acc	val_acc	time_ms	loss_aug	val_loss_aug	acc_aug	val_acc_aug	time_ms_aug
0	own_model	1.240000e-02	0.8823	1.0000	0.7333	46	0.9281	1.0283	0.5938	0.5667	1421
1	vgg	8.181000e-01	1.2051	0.5618	0.4667	1203	1.1003	1.0958	0.3438	0.3000	1743
2	inception	1.070000e-05	3.5910	1.0000	0.8667	121	0.0061	5.2316	1.0000	0.9000	1610
3	resnet	3.240000e-07	3.4033	1.0000	0.7333	1406	0.1117	7.0000	0.9844	0.6667	2938
4	xception	2.963000e-01	1.6047	0.9438	0.8333	1248	0.0735	0.1231	0.9844	0.9667	1586

Comparison Table

- The own model, inception and resnet models have higher validationloss on Augmented data than normal data.
- The Inception and Xception models have higher validation accuracy on augmented data than on normal data.
- The "own\_model" has the lowest loss and whereas "xception" model has the lowest validation loss and the highest validation accuracy on augmented data.
- Xception is best performing model whereas 'VGG' is worst performing model on this dataset