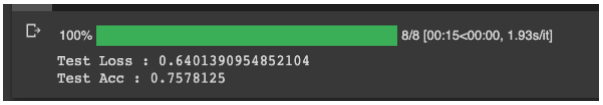
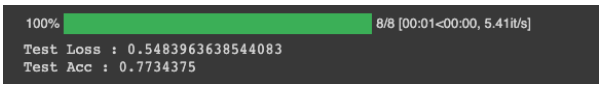
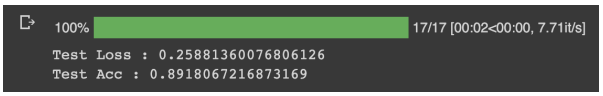
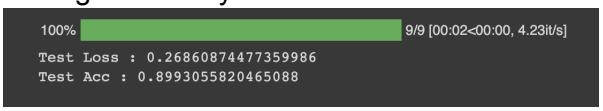
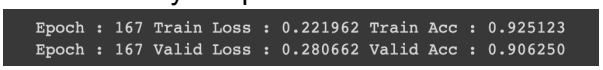
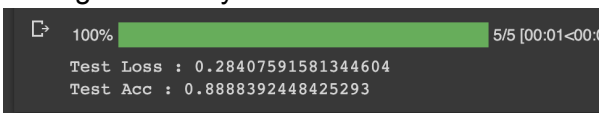
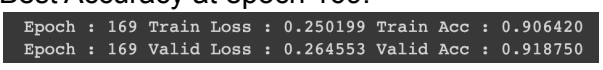
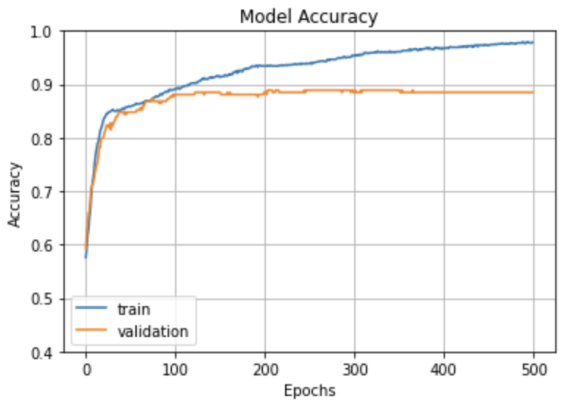
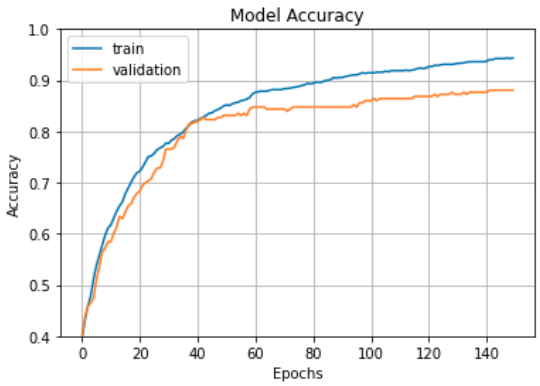
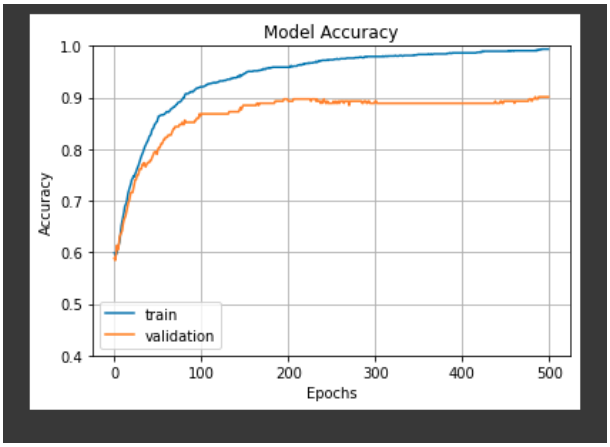
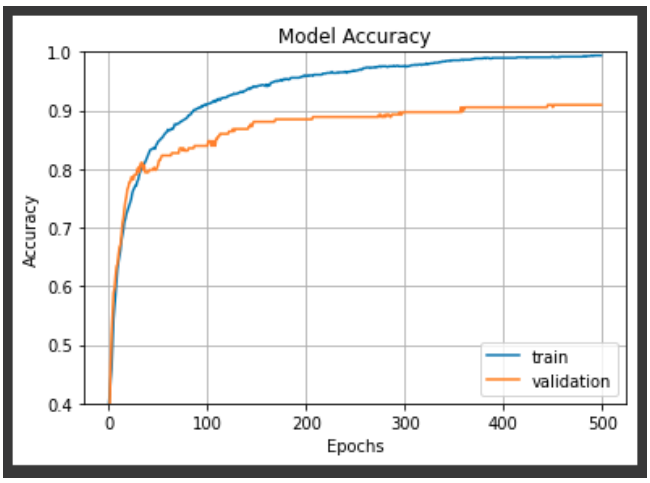
	Model	Accuracy
	Efficientnet_b4 - for 4 classes(normal, rot, bloatch, scab) epochs =20 lr = 0.001	
	Efficientnet_b4 - for 4 classes(normal, rot, bloatch, scab) epochs =200 lr = 0.00001	
	Efficientnet_b4 - for 2 classes(normal, defected) epochs =250 lr = 0.00001	
	Efficientnet_b4 - for 2 classes(normal, defected) - More data - merged data (2 classes + 4 classes) epochs =200 lr = 0.00001	
	Efficientnet_b4 - for 2 classes(normal, defected) - More data - merged data (2 classes + 4 classes) **Increased Batch size to 32** epochs =200 lr = 0.000005	Average accuracy:  Best Accuracy at epoch 167: 
	Efficientnet_b4 - for 2 classes(normal, defected) - More data - merged data (2 classes + 4 classes) **Increased Batch size to 64** epochs =200 lr = 0.000005	Average Accuracy:  Best Accuracy at epoch 169: 

	Efficientnet_b4 - for 2 classes(normal, defected) - More data - merged data (2 classes + 4 classes) **Increased Batch size to 64** epochs =400 lr = 0.000005	Average accuracy: 100% 5/5 [00:01<00:00, 3.03it/s] Test Loss : 0.2485705479979515 Test Acc : 0.909375011920929 Best Accuracy at epoch 336: Epoch : 136 Train Loss : 0.191113 Train Acc : 0.927891 Epoch : 136 Valid Loss : 0.246882 Valid Acc : 0.912500
	EfficientNetV2L-transfer-learning **Dataset:-** **apple_dataset_normal_and_defected_with_extra_data_for_resnet_only_validation_data** **Batch size:- 32** epochs = 350 lr = 0.000002	Epoch 350/350 31/31 [==============================] - 10s 320ms/step - loss: 0.1893 - accuracy: 0.9444 - val_loss: 0.2980 - val_accuracy: 0.8848 **Val accuracy = 88.48%**
	EfficientNetV2L-transfer-learning **Dataset:-** **apple_dataset_normal_and_defected_with_extra_data_for_resnet_only_validation_data** **Batch size:- 32** epochs = 500 lr = 0.000003	Epoch 500/500 31/31 [==============================] - 10s 322ms/step - loss: 0.1043 - accuracy: 0.9784 - val_loss: 0.2767 - val_accuracy: 0.8848 **Val accuracy = 88.48%** 
	Resnet-50 Batch_size = 32 Epochs = 150 **Learning_rate = 0.000001** Dataset ->	 Val accuracy = 0.8807

	apple_dataset_normal_and_defected_with_extra_data_for_resnet_only_validation_data	
	Resnet-50 Batch_size = 32 Epochs = 500 **Learning_rate = 0.000001** Dataset -> apple_dataset_normal_and_defected_with_extra_data_for_resnet_only_validation_data	Epoch 500/500 31/31 [==============================] - 4s 118ms/step - loss: 0.0598 - accuracy: 0.9938 - val_loss: 0.2697 - val_accuracy: 0.9012 **Training Accuracy: 99.38** **Validation Accuracy: 90.12** 
**	**Resnet-50** Batch_size = 32 Epochs = 500 **Learning_rate = 0.000001** **Dataset ->** apple_dataset_normal_and_defected_with_extra_data_for_resnet_only_validation_data	Epoch 500/500 31/31 [==============================] - 4s 122ms/step - loss: 0.0587 - accuracy: 0.9938 - val_loss: 0.2695 - val_accuracy: 0.9095

	Dataset link → https://drive.google.com/drive/folders/1NlmW5_Vja29hoDbwE0AxnfaRM4T2wQG-?usp=sharing **Trained RestNet-50 model link →** **https://drive.google.com/drive/folders/193IKkpITwwEWv_5RanUPVnuzYvR83qCL?usp=sharing** **Loading this model:-** "/content/drive/MyDrive/CMPE-295-A/my_resnet_model"	 **Training Accuracy: 99.38** **Validation Accuracy: 90.95** [116] print(classification_report(labels, predictions, target_names=classnames)) precision recall f1-score support DEFECTED 0.95 0.91 0.93 157 NORMAL 0.85 0.91 0.88 86 accuracy 0.91 243 macro avg 0.90 0.91 0.90 243 weighted avg 0.91 0.91 0.91 243
	Resnet-50 Batch_size = 32 Epochs = 500 **Learning_rate = 0.000001** Dataset -> **/content/drive/MyDrive/CMPE-295-A/apple_dataset_normal_and_defected_with_extra_data_for_resnet_only_validation_data_more_data_added**	**Training Accuracy: 100%** **Validation Accuracy: 97%** **The model was trained wrong because dataset has repeated images and hence images were repeating training set and validation set.** **Can be improved but will look into it after 14th.** **** Work on dataset**