RESULTS AND IMPLEMENTATION

DATASET:

No of images

Training images: 5722

Testing images : 1311

SIZE OF INDIVDUAL IMAGES

(224, 244)

PLATFORM

Google colab

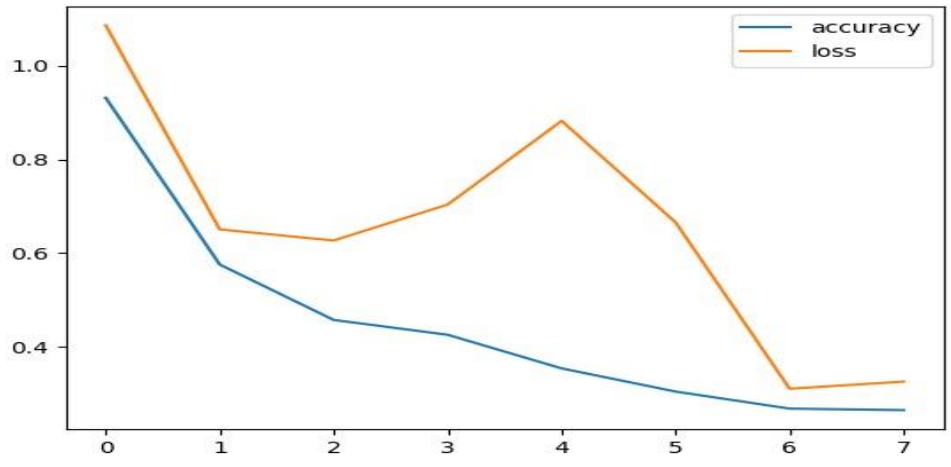
RESULTS OF EACH MODULE

	PARAMETER	EPOCHS	CONFIGURTAION	ACCURACY
CNN	Train size Shuffle Random_state Batch_size Relu Softmax learning_rate	5	efficientnetb3 batch normalization dense dropout dense_1	0.9882
VGG	Batch size Shuffle Softmax Relu Learning rate	8	block1_pool, block2_conv1, block2_conv2, block3_conv1, block3_conv2, block3_conv3 block3_pool, block4_conv1 block4_conv2, block4_conv3 block4_pool, block5_conv1 block5_conv2, block5_conv3 GlobalAveragePooling2D	0.9099
RESNET	Shuffle Batch_size Relu Softmax	10	Resnet 50 Conv_1 Conv_2 Conv_3 Con_4 Con_5 FC Dense Flatten AVERAGE POLLING	0.9107

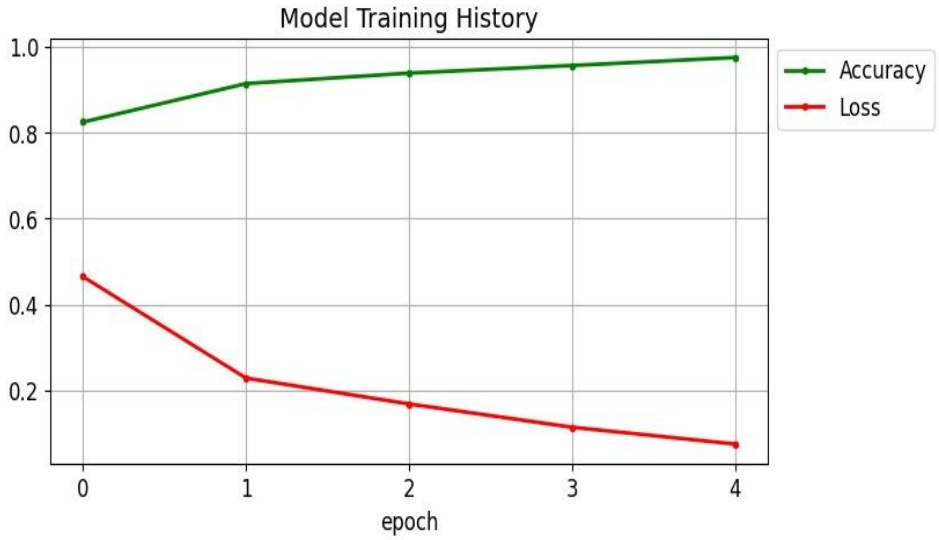
LOSS FUNCTION GRPAHS :

CNN:

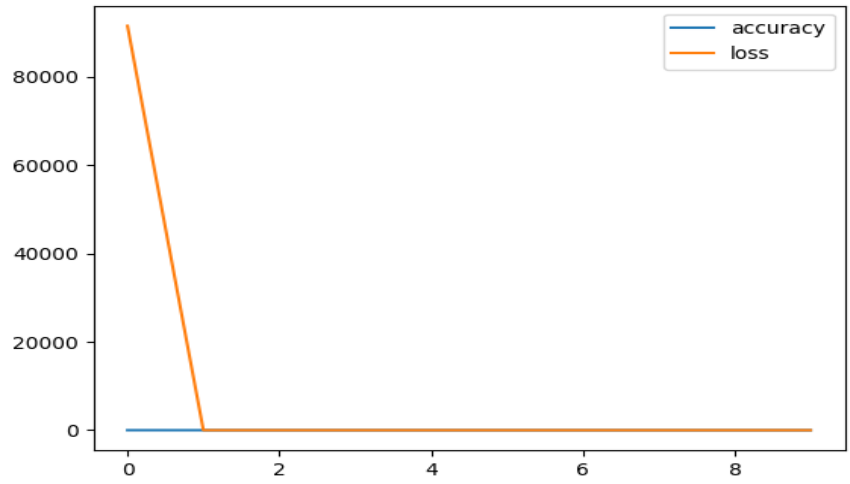
VGG16:



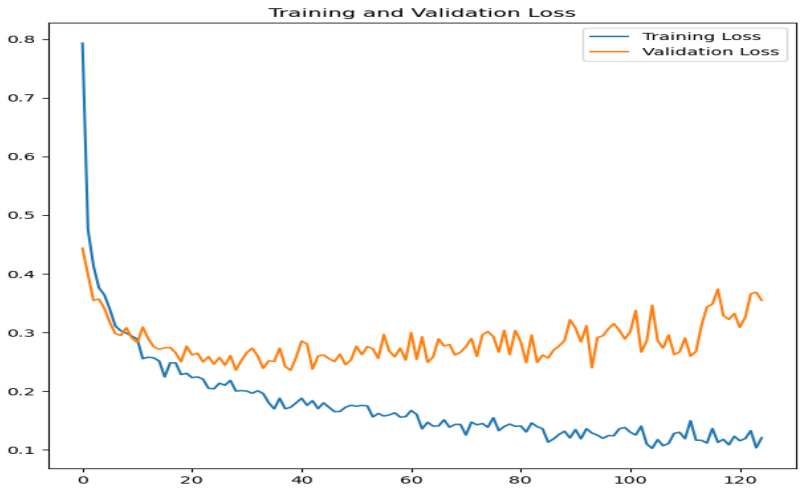
VGGI6 TL:



Resnet50:



Resnet50 TL:



Classification Report

	CNN	VGG16	RESNET50	CNN+VGG	CNN+RESNET
precision	0.9925	0.9104	0.9075	0.9575	0.9724
Recall	0.9875	0.9099	0.91	0.96	0.9782
f1-score	0.99	0.9101	0.91	0.9575	0.9753
accuracy	0.9882	0.9099	0.9107	0.96	0.9305