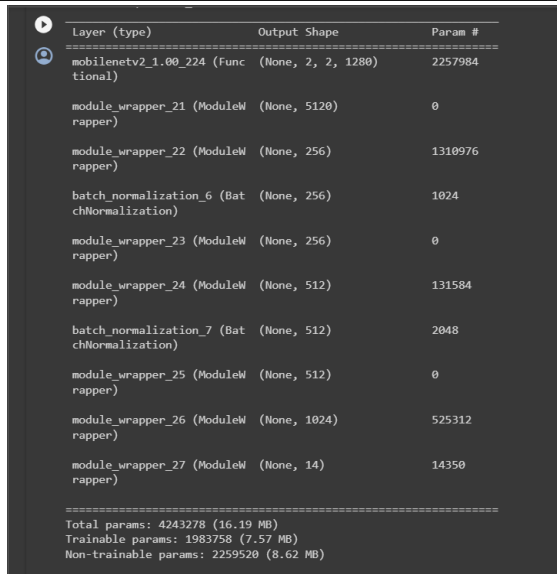
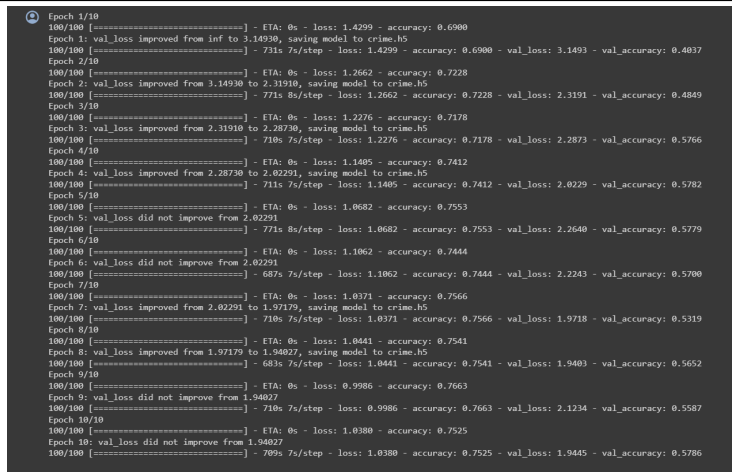


## Project Development Phase Model Performance Test

Date	20 November 2023
Team ID	Team-592436
Project Name	Crime Vision: Advanced Crime Classification With Deep Learning
Maximum Marks	10 Marks

### Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Values	Screenshot
1.	Model Summary	Total params: 4243278 Trainable params: 1983758 Non-trainable params: 2259520	 <pre> Layer (type)                Output Shape              Param # ----- mobilenetv2_1.00_224 (Func  (None, 2, 2, 1280)      2257984 tional)  module_wrapper_21 (ModuleW  (None, 5120)              0 rapper)  module_wrapper_22 (ModuleW  (None, 256)               1310976 rapper)  batch_normalization_6 (Bat  (None, 256)              1024 chNormalization)  module_wrapper_23 (ModuleW  (None, 256)              0 rapper)  module_wrapper_24 (ModuleW  (None, 512)              131584 rapper)  batch_normalization_7 (Bat  (None, 512)              2048 chNormalization)  module_wrapper_25 (ModuleW  (None, 512)              0 rapper)  module_wrapper_26 (ModuleW  (None, 1024)             525312 rapper)  module_wrapper_27 (ModuleW  (None, 14)               14350 rapper)  Total params: 4243278 (16.19 MB) Trainable params: 1983758 (7.57 MB) Non-trainable params: 2259520 (8.62 MB) </pre>
2.	Accuracy	Training Accuracy - 75.25  Validation Accuracy - 57.86	 <pre> Epoch 1/10 [=====] - ETA: 0s - loss: 1.4299 - accuracy: 0.6900 Epoch 1: val_loss improved from inf to 3.14930, saving model to crime.h5 100/100 [=====] - 731s 7s/step - loss: 1.4299 - accuracy: 0.6900 - val_loss: 3.1493 - val_accuracy: 0.4037 Epoch 2/10 [=====] - ETA: 0s - loss: 1.2662 - accuracy: 0.7228 Epoch 2: val_loss improved from 3.14930 to 2.31910, saving model to crime.h5 100/100 [=====] - 771s 8s/step - loss: 1.2662 - accuracy: 0.7228 - val_loss: 2.3191 - val_accuracy: 0.4849 Epoch 3/10 [=====] - ETA: 0s - loss: 1.2276 - accuracy: 0.7178 Epoch 3: val_loss improved from 2.31910 to 2.28730, saving model to crime.h5 100/100 [=====] - 710s 7s/step - loss: 1.2276 - accuracy: 0.7178 - val_loss: 2.2873 - val_accuracy: 0.5766 Epoch 4/10 [=====] - ETA: 0s - loss: 1.1405 - accuracy: 0.7412 Epoch 4: val_loss improved from 2.28730 to 2.02291, saving model to crime.h5 100/100 [=====] - 711s 7s/step - loss: 1.1405 - accuracy: 0.7412 - val_loss: 2.0229 - val_accuracy: 0.5782 Epoch 5/10 [=====] - ETA: 0s - loss: 1.0682 - accuracy: 0.7553 Epoch 5: val_loss did not improve from 2.02291 100/100 [=====] - 771s 8s/step - loss: 1.0682 - accuracy: 0.7553 - val_loss: 2.2640 - val_accuracy: 0.5779 Epoch 6/10 [=====] - ETA: 0s - loss: 1.1062 - accuracy: 0.7444 Epoch 6: val_loss did not improve from 2.02291 100/100 [=====] - 607s 7s/step - loss: 1.1062 - accuracy: 0.7444 - val_loss: 2.2243 - val_accuracy: 0.5700 Epoch 7/10 [=====] - ETA: 0s - loss: 1.0371 - accuracy: 0.7566 Epoch 7: val_loss improved from 2.02291 to 1.97179, saving model to crime.h5 100/100 [=====] - 710s 7s/step - loss: 1.0371 - accuracy: 0.7566 - val_loss: 1.9718 - val_accuracy: 0.5319 Epoch 8/10 [=====] - ETA: 0s - loss: 1.0441 - accuracy: 0.7541 Epoch 8: val_loss improved from 1.97179 to 1.94027, saving model to crime.h5 100/100 [=====] - 683s 7s/step - loss: 1.0441 - accuracy: 0.7541 - val_loss: 1.9403 - val_accuracy: 0.5652 Epoch 9/10 [=====] - ETA: 0s - loss: 0.9986 - accuracy: 0.7663 Epoch 9: val_loss did not improve from 1.94027 100/100 [=====] - 710s 7s/step - loss: 0.9986 - accuracy: 0.7663 - val_loss: 2.1234 - val_accuracy: 0.5587 Epoch 10/10 [=====] - ETA: 0s - loss: 1.0380 - accuracy: 0.7525 Epoch 10: val_loss did not improve from 1.94027 100/100 [=====] - 709s 7s/step - loss: 1.0380 - accuracy: 0.7525 - val_loss: 1.9445 - val_accuracy: 0.5786 </pre>
3.	Confidence Score (Only Yolo Projects)	Class Detected - NA  Confidence Score - NA	Not Applicable

## Screenshots:

### Model Summary

Layer (type)	Output Shape	Param #
mobilenetv2_1.00_224 (Functional)	(None, 2, 2, 1280)	2257984
module_wrapper_21 (ModuleWrapper)	(None, 5120)	0
module_wrapper_22 (ModuleWrapper)	(None, 256)	1310976
batch_normalization_6 (Batch Normalization)	(None, 256)	1024
module_wrapper_23 (ModuleWrapper)	(None, 256)	0
module_wrapper_24 (ModuleWrapper)	(None, 512)	131584
batch_normalization_7 (Batch Normalization)	(None, 512)	2048
module_wrapper_25 (ModuleWrapper)	(None, 512)	0
module_wrapper_26 (ModuleWrapper)	(None, 1024)	525312
module_wrapper_27 (ModuleWrapper)	(None, 14)	14350
Total params: 4243278 (16.19 MB)		
Trainable params: 1983758 (7.57 MB)		
Non-trainable params: 2259520 (8.62 MB)		

### Accuracy

Epoch 1/10
100/100 [=====] - ETA: 0s - loss: 1.4299 - accuracy: 0.6900
Epoch 1: val_loss improved from inf to 3.14930, saving model to crime.h5
100/100 [=====] - 731s 7s/step - loss: 1.4299 - accuracy: 0.6900 - val_loss: 3.1493 - val_accuracy: 0.4037
Epoch 2/10
100/100 [=====] - ETA: 0s - loss: 1.2662 - accuracy: 0.7228
Epoch 2: val_loss improved from 3.14930 to 2.31910, saving model to crime.h5
100/100 [=====] - 771s 8s/step - loss: 1.2662 - accuracy: 0.7228 - val_loss: 2.3191 - val_accuracy: 0.4849
Epoch 3/10
100/100 [=====] - ETA: 0s - loss: 1.2276 - accuracy: 0.7178
Epoch 3: val_loss improved from 2.31910 to 2.28730, saving model to crime.h5
100/100 [=====] - 710s 7s/step - loss: 1.2276 - accuracy: 0.7178 - val_loss: 2.2873 - val_accuracy: 0.5766
Epoch 4/10
100/100 [=====] - ETA: 0s - loss: 1.1405 - accuracy: 0.7412
Epoch 4: val_loss improved from 2.28730 to 2.02291, saving model to crime.h5
100/100 [=====] - 711s 7s/step - loss: 1.1405 - accuracy: 0.7412 - val_loss: 2.0229 - val_accuracy: 0.5782
Epoch 5/10
100/100 [=====] - ETA: 0s - loss: 1.0682 - accuracy: 0.7553
Epoch 5: val_loss did not improve from 2.02291
100/100 [=====] - 771s 8s/step - loss: 1.0682 - accuracy: 0.7553 - val_loss: 2.2640 - val_accuracy: 0.5779
Epoch 6/10
100/100 [=====] - ETA: 0s - loss: 1.1062 - accuracy: 0.7444
Epoch 6: val_loss did not improve from 2.02291
100/100 [=====] - 687s 7s/step - loss: 1.1062 - accuracy: 0.7444 - val_loss: 2.2243 - val_accuracy: 0.5700
Epoch 7/10
100/100 [=====] - ETA: 0s - loss: 1.0371 - accuracy: 0.7566
Epoch 7: val_loss improved from 2.02291 to 1.97179, saving model to crime.h5
100/100 [=====] - 710s 7s/step - loss: 1.0371 - accuracy: 0.7566 - val_loss: 1.9718 - val_accuracy: 0.5319
Epoch 8/10
100/100 [=====] - ETA: 0s - loss: 1.0441 - accuracy: 0.7541
Epoch 8: val_loss improved from 1.97179 to 1.94027, saving model to crime.h5
100/100 [=====] - 683s 7s/step - loss: 1.0441 - accuracy: 0.7541 - val_loss: 1.9403 - val_accuracy: 0.5652
Epoch 9/10
100/100 [=====] - ETA: 0s - loss: 0.9986 - accuracy: 0.7663
Epoch 9: val_loss did not improve from 1.94027
100/100 [=====] - 710s 7s/step - loss: 0.9986 - accuracy: 0.7663 - val_loss: 2.1234 - val_accuracy: 0.5587
Epoch 10/10
100/100 [=====] - ETA: 0s - loss: 1.0380 - accuracy: 0.7525
Epoch 10: val_loss did not improve from 1.94027
100/100 [=====] - 709s 7s/step - loss: 1.0380 - accuracy: 0.7525 - val_loss: 1.9445 - val_accuracy: 0.5786