Project Development Phase Model Performance Test

Date 13 May 2023	
Team ID	NM2023TMID18455
Project Name	CrimeVision: Advanced Crime Classification with Deep Learning

Model Performance Testing:

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

e a	Values		
Para meter			
		Model: "sequential"	
Model Summary		Layer (type) Output Shape Param #	
		densenet121 (Functional) (None, 2, 2, 1024) 7037504	
	Total params: 7,971,150	global_average_pooling2d (G (None, 1024) 0 lobalAveragePooling2D)	
		dense (Dense) (None, 256) 262400	
	Trainable params:	dropout (Dropout) (None, 256) 0	
	7,832,334	dense_1 (Dense) (None, 512) 131584	
	Non-trainable params:	dropout_1 (Dropout) (None, 512) 0	
	138,816	dense_2 (Dense) (None, 1024) 525312	
		dense_3 (Dense) (None, 14) 14350	
		Total params: 7,971,150 Trainable params: 7,832,334 Non-trainable params: 138,816	

```
Epoch 1:
Training accuracy:
```

Validation accuracy: 0.9640

Epoch 2:

Training accuracy: 0.9931 Validation accuracy: 0.9874

Epoch 3:

Training accuracy: 0.9951 Validation accuracy: 0.9962 Epoch 4:

Training accuracy: 0.9961 Validation accuracy: 0.9968 Epoch 5:

Training accuracy: 0.9964 Validation accuracy: 0.9977

```
history = model.fit(x=train set, validation data=val set, epochs=EPOCHS)
Epoch 1/5
7915/7915 [
                                          - 1729s 207ms/step - loss: 0.0970 - accuracy: 0.9741 - val loss: 0.1867 - val accuracy: 0.9640
Epoch 2/5
                                            1625s 205ms/step - loss: 0.0279 - accuracy: 0.9931 - val_loss: 0.0464 - val_accuracy: 0.9874
7915/7915 [
Epoch 3/5
7915/7915 [
                                            1627s 205ms/step - loss: 0.0202 - accuracy: 0.9951 - val_loss: 0.0158 - val_accuracy: 0.9962
Epoch 4/5
7915/7915 [=
                                           - 1594s 201ms/step - loss: 0.0161 - accuracy: 0.9961 - val_loss: 0.0119 - val_accuracy: 0.9968
7915/7915 [====
                                     ====] - 1593s 201ms/step - loss: 0.0151 - accuracy: 0.9964 - val loss: 0.0084 - val accuracy: 0.9977
```