Project Development Phase
Model Performance Test
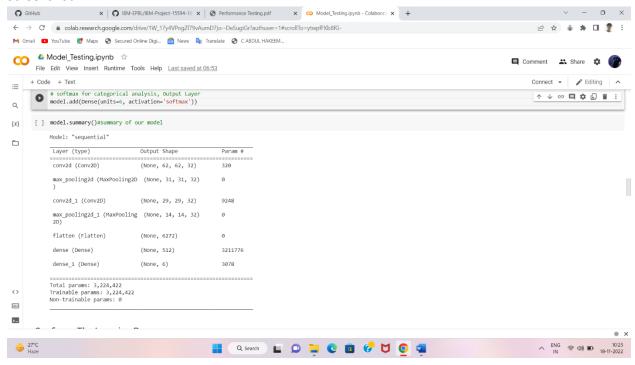
Date	19 November 2022
Team ID	PNT2022TMID39568
Project Name	A Gesture - Based Tool for Sterile Browsing of Radiology Ideations Images
Maximum Marks	10 Marks

Model Performance Testing:

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

Si No.	Parameter	Values	Screenshot
1.	Model Summary	Total params: 3,224,422 Trainable params: 3,224,422 Non-trainable params: 0	Screenshot 1
2.	Accuracy	Training Accuracy – 99.49 Validation Accuracy – 90.00	Screenshot 2

Screenshot 1:


```python
# softmax for categorical analysis, Output Layer
model.add(Dense(units=6, activation='softmax'))
```

```python
model.summary()#summary of our model
```

```
Model: "sequential"
_____
 Layer (type)                Output Shape              Param #
=================================================================
 conv2d (Conv2D)             (None, 62, 62, 32)        320

 max_pooling2d (MaxPooling2D  (None, 31, 31, 32)       0
 )

 conv2d_1 (Conv2D)           (None, 29, 29, 32)        9248

 max_pooling2d_1 (MaxPooling  (None, 14, 14, 32)       0
 2D)

 flatten (Flatten)           (None, 6272)              0

 dense (Dense)               (None, 512)               3211776

 dense_1 (Dense)             (None, 6)                 3078

=================================================================
Total params: 3,224,422
Trainable params: 3,224,422
Non-trainable params: 0
_____
```

Screenshot 2:


```
Epoch 11/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0388 - accuracy: 0.9916 - val_loss: 0.2462 - val_accuracy: 0.9667
Epoch 12/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0571 - accuracy: 0.9832 - val_loss: 0.2372 - val_accuracy: 0.9333
Epoch 13/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0494 - accuracy: 0.9798 - val_loss: 0.2675 - val_accuracy: 0.9333
Epoch 14/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0088 - accuracy: 0.9983 - val_loss: 0.0823 - val_accuracy: 0.9667
Epoch 15/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0479 - accuracy: 0.9865 - val_loss: 0.2522 - val_accuracy: 0.9667
Epoch 16/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0452 - accuracy: 0.9764 - val_loss: 0.2422 - val_accuracy: 0.9333
Epoch 17/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0571 - accuracy: 0.9865 - val_loss: 0.4442 - val_accuracy: 0.8667
Epoch 18/25
198/198 [==============================] - 2s 8ms/step - loss: 0.0751 - accuracy: 0.9747 - val_loss: 0.1980 - val_accuracy: 0.9667
Epoch 19/25
198/198 [==============================] - 2s 10ms/step - loss: 0.0071 - accuracy: 1.0000 - val_loss: 0.1382 - val_accuracy: 0.9667
Epoch 20/25
198/198 [==============================] - 2s 10ms/step - loss: 0.0217 - accuracy: 0.9916 - val_loss: 0.2435 - val_accuracy: 0.9667
Epoch 21/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0096 - accuracy: 0.9966 - val_loss: 0.2690 - val_accuracy: 0.9333
Epoch 22/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0784 - accuracy: 0.9714 - val_loss: 0.2148 - val_accuracy: 0.9333
Epoch 23/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0589 - accuracy: 0.9899 - val_loss: 0.6346 - val_accuracy: 0.8667
Epoch 24/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0285 - accuracy: 0.9899 - val_loss: 0.6206 - val_accuracy: 0.9667
Epoch 25/25
198/198 [==============================] - 1s 7ms/step - loss: 0.0143 - accuracy: 0.9949 - val_loss: 0.5181 - val_accuracy: 0.9000
<keras.callbacks.History at 0x7fbe2cd27410>
```