roject Development Phase Model Performance Test

Date	10 November 2022	
Team ID	PNT2022TMID15330	
Project Name	A Gesture-based Tool for Sterile Browsing of	
	Radiology Images	
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	conv2d (Conv2D) - 320 max_pooling2d (MaxPooling2D) - 0 conv2d_1 (Conv2D) - 9248 max_pooling2d_1 (MaxPooling2D) - 0 flatten (Flatten) - 0 dense (Dense) - 802944 dense_1 (Dense) - 774	Classifier.summary() Model: "sequential" Layer (type) Output Shape Param # Conv2d (Conv2D) (Mone, 62, 62, 32) 320 max.pooling2d (MaxPooling2D (Mone, 33, 31, 22) 0) conv2d_1 (Conv2D) (Mone, 29, 29, 32) 9248 max.pooling2d_1 (MaxPooling (Mone, 14, 14, 32) 0 2D) flatten (Flatten) (Mone, 6272) 0 dense (Dense) (Mone, 12B) 802944 dense_1 (Dense) (Mone, 6) 774 Total params: 813, 286 Trainable params: 813, 286 Non-trainable params: 0
2.	Accuracy	Training Accuracy - 99.16% Validation Accuracy – 96.67%	Compared Compared
3.	Confidence Score (Only Yolo Projects)	Class Detected - Confidence Score -	NA

Screenshots:

1. Model Summary:

```
classifier.summary()
Model: "sequential"
Layer (type)
                          Output Shape
                                                 Param #
 conv2d (Conv2D)
                          (None, 62, 62, 32)
                                                 320
max pooling2d (MaxPooling2D (None, 31, 31, 32)
 conv2d_1 (Conv2D)
                          (None, 29, 29, 32)
                                                 9248
max_pooling2d_1 (MaxPooling (None, 14, 14, 32)
 flatten (Flatten)
                          (None, 6272)
 dense (Dense)
                                                 802944
                          (None, 128)
dense_1 (Dense)
                          (None, 6)
                                                 774
______
Total params: 813,286
Trainable params: 813,286
Non-trainable params: 0
```

2. Accuracy:

```
classifier.fit generator(
  generator=x_train, steps_per_epoch=len(x_train),
epochs=20, validation_data=x_test, validation_steps=len(x_test)
/tmp/wsuser/ipykernel_217/2617134232.py:1: UserWarning: `Model.fit_generator` is deprecated and will be removed in a future version. Please use `Model.fit
classifier.fit_generator(
Epoch 1/20
119/119 [====
       Fnoch 2/20
119/119 [==
Epoch 3/20
        ============] - 5s 42ms/step - loss: 0.4844 - accuracy: 0.8081 - val loss: 0.5624 - val accuracy: 0.8000
119/119 [==
Epoch 5/20
119/119 [====
       119/119 [==
119/119 [===
Epoch 8/20
          ===========] - 5s 42ms/step - loss: 0.1807 - accuracy: 0.9478 - val loss: 0.2878 - val accuracy: 0.9667
119/119 [=====
Epoch 9/20
119/119 [===
           ===========] - 5s 41ms/step - loss: 0.1360 - accuracy: 0.9461 - val_loss: 0.2737 - val_accuracy: 0.8667
Epoch 10/20
119/119 [======
           Epoch 12/20
119/119 [===
Epoch 13/20
        =========] - 5s 42ms/step - loss: 0.1307 - accuracy: 0.9495 - val_loss: 0.2451 - val_accuracy: 0.9333
119/119 [====
          ============] - 5s 42ms/step - loss: 0.0528 - accuracy: 0.9848 - val_loss: 0.3329 - val_accuracy: 0.9333
Epoch 14/20
119/119 [====
           Epoch 15/20
119/119 [====
Epoch 16/20
          =======] - 5s 41ms/step - loss: 0.0496 - accuracy: 0.9815 - val_loss: 0.5053 - val_accuracy: 0.9000
           119/119 [===:
Epoch 17/20
119/119 [====
           ========] - 5s 41ms/step - loss: 0.0454 - accuracy: 0.9815 - val_loss: 0.2206 - val_accuracy: 0.9667
Epoch 18/20
119/119 [=====
       ============================= ] - 5s 43ms/step - loss: 0.0479 - accuracy: 0.9815 - val_loss: 0.3190 - val_accuracy: 0.9667
          119/119 [===:
119/119 [====
```