

Project Development Phase
Model Performance Test

Date	18 November 2022
Team ID	PNT2022TMID43392
Project Name	AI-powered Nutrition Analyzer for Fitness Enthusiasts
Maximum Marks	10 Marks

Model Performance Testing:

1. MODEL SUMMARY

```
classifier.summary()
```

Model: "sequential"

Layer (type)	Output Shape	Param #
=====		
conv2d (Conv2D)	(None, 62, 62, 32)	896

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

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

max_pooling2d_1 (MaxPooling2D)	(None, 14, 14, 32)	0

flatten (Flatten)	(None, 6272)	0

dense (Dense)	(None, 128)	802944

dense_1 (Dense)	(None, 5)	645
=====		

Total params: 813,733

Trainable params: 813,733

Non-trainable params: 0

2. ACCURACY

Values:

Training Accuracy – 0.995245

Validation Accuracy – 0.98577

```
Epoch 1/20
526/526 [=====] - 14s 27ms/step - loss: 0.1484 -
accuracy: 0.9414 - val_loss: 0.0534 - val_accuracy: 0.9791
Epoch 2/20
526/526 [=====] - 12s 23ms/step - loss: 3.5193e-0
4 - accuracy: 1.0000 - val_loss: 0.0318 - val_accuracy: 0.9791
Epoch 3/20
526/526 [=====] - 12s 22ms/step - loss: 1.0735e-0
4 - accuracy: 1.0000 - val_loss: 0.0376 - val_accuracy: 0.9791
Epoch 4/20
526/526 [=====] - 11s 22ms/step - loss: 5.5144e-0
5 - accuracy: 1.0000 - val_loss: 0.0442 - val_accuracy: 0.9791
Epoch 5/20
526/526 [=====] - 12s 22ms/step - loss: 0.0659 -
accuracy: 0.9844 - val_loss: 0.3157 - val_accuracy: 0.9441
Epoch 6/20
526/526 [=====] - 12s 22ms/step - loss: 0.0028 -
accuracy: 0.9989 - val_loss: 0.0018 - val_accuracy: 1.0000
Epoch 7/20
526/526 [=====] - 12s 22ms/step - loss: 8.1948e-0
5 - accuracy: 1.0000 - val_loss: 0.0018 - val_accuracy: 1.0000
Epoch 8/20
526/526 [=====] - 12s 22ms/step - loss: 6.2289e-0
5 - accuracy: 1.0000 - val_loss: 0.0015 - val_accuracy: 1.0000
Epoch 9/20
526/526 [=====] - 12s 23ms/step - loss: 2.5542e-0
5 - accuracy: 1.0000 - val_loss: 0.0019 - val_accuracy: 1.0000
Epoch 10/20
526/526 [=====] - 12s 22ms/step - loss: 2.3059e-0
5 - accuracy: 1.0000 - val_loss: 0.0046 - val_accuracy: 1.0000
Epoch 11/20
526/526 [=====] - 12s 22ms/step - loss: 1.2234e-0
5 - accuracy: 1.0000 - val_loss: 0.0026 - val_accuracy: 1.0000
Epoch 12/20
526/526 [=====] - 12s 22ms/step - loss: 8.8242e-0
6 - accuracy: 1.0000 - val_loss: 0.0042 - val_accuracy: 1.0000
Epoch 13/20
526/526 [=====] - 12s 22ms/step - loss: 8.7391e-0
5 - accuracy: 1.0000 - val_loss: 0.0192 - val_accuracy: 0.9858
Epoch 14/20
526/526 [=====] - 12s 22ms/step - loss: 9.9062e-0
6 - accuracy: 1.0000 - val_loss: 0.0204 - val_accuracy: 0.9839
Epoch 15/20
526/526 [=====] - 12s 22ms/step - loss: 0.0379 -
accuracy: 0.9924 - val_loss: 0.1860 - val_accuracy: 0.9678
Epoch 16/20
```

```
526/526 [=====] - 12s 22ms/step - loss: 0.0574 -  
accuracy: 0.9878 - val_loss: 0.0075 - val_accuracy: 1.0000  
Epoch 17/20  
526/526 [=====] - 11s 22ms/step - loss: 6.4138e-0  
5 - accuracy: 1.0000 - val_loss: 0.0455 - val_accuracy: 0.9791  
Epoch 18/20  
526/526 [=====] - 12s 22ms/step - loss: 2.4860e-0  
5 - accuracy: 1.0000 - val_loss: 0.0503 - val_accuracy: 0.9791  
Epoch 19/20  
526/526 [=====] - 12s 22ms/step - loss: 1.7058e-0  
5 - accuracy: 1.0000 - val_loss: 0.0357 - val_accuracy: 0.9801  
Epoch 20/20  
526/526 [=====] - 12s 22ms/step - loss: 5.7387e-0  
6 - accuracy: 1.0000 - val_loss: 0.0526 - val_accuracy: 0.9791
```