

**Project Development Phase**  
**Model Performance Test**

Date	10 November 2022
Team ID	PNT2022TMID53113
Project Name	Project AI-powered Nutrition Analyzer for Fitness Enthusiasts
Maximum Marks	10 Marks

**Model Performance Testing:**

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

S.No.	Parameter	Values
1.	Model Summary	The Model was built using MobileNetV2 architecture. MobileNet-v2 is a convolutional neural network that is 53 layers deep. MobileNetV2 is a very effective feature extractor for object detection and segmentation.
2.	Accuracy	Training Accuracy – 92.00% Validation Accuracy – 44.6%

**Screenshots:**

Model Summary:

```
Model: "model_1"
-----
Layer (type)                 Output Shape              Param #
-----
input_2 (InputLayer)         [(None, 224, 224, 3)]    0
mobilenetv2_1.00_224 (Func    (None, 5)                2264389
tional)
-----
Total params: 2,264,389
Trainable params: 2,230,277
Non-trainable params: 34,112
-----
```

Training Accuracy for the last 5 Epochs:

```
Epoch 1/5
138/138 [=====] - 356s 3s/step - loss: 0.5881 - accuracy: 0.7948
Epoch 2/5
138/138 [=====] - 352s 3s/step - loss: 0.3108 - accuracy: 0.8881
Epoch 3/5
138/138 [=====] - 346s 3s/step - loss: 0.2590 - accuracy: 0.9113
Epoch 4/5
138/138 [=====] - 346s 3s/step - loss: 0.2216 - accuracy: 0.9203
Epoch 5/5
138/138 [=====] - 341s 2s/step - loss: 0.2260 - accuracy: 0.9200

Out[20]: <keras.callbacks.History at 0x22897974f40>
```

## Validation Accuracy for the last 5 Epochs:

```
In [104]: pred=model.predict(dataT)
          model.evaluate(dataT,one_hot_encoded_dataT)

30/30 [=====] - 16s 527ms/step - loss: 2.5933 - accuracy: 0.4467

Out[104]: [2.593332529067993, 0.44671690464019775]
```