



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

Date	15 November 2022
Team ID	PNT2022TMID33113
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	Screenshot																								
1.	Model Summary	<pre>classifier = Sequential() classifier.add(Conv2D(32, (3, 3), input_shape=(64, 64, 3), activation='relu')) classifier.add(MaxPooling2D(pool_size=(2, 2))) classifier.add(Conv2D(32, (3, 3), activation='relu')) classifier.add(MaxPooling2D(pool_size=(2, 2))) classifier.add(Flatten()) classifier.add(Dense (units=128, activation='relu')) classifier.add(Dense (units=5, activation='softmax'))</pre>	<div><div> classifier.summary()</div><div> Model: "sequential_1"</div><table><thead><tr><th>Layer (type)</th><th>Output Shape</th><th>Param #</th></tr></thead><tbody><tr><td>conv2d (Conv2D)</td><td>(None, 62, 62, 32)</td><td>896</td></tr><tr><td>max_pooling2d (MaxPooling2D)</td><td>(None, 31, 31, 32)</td><td>0</td></tr><tr><td>conv2d_1 (Conv2D)</td><td>(None, 29, 29, 32)</td><td>9248</td></tr><tr><td>max_pooling2d_1 (MaxPooling2D)</td><td>(None, 14, 14, 32)</td><td>0</td></tr><tr><td>flatten (Flatten)</td><td>(None, 6272)</td><td>0</td></tr><tr><td>dense (Dense)</td><td>(None, 128)</td><td>802944</td></tr><tr><td>dense_1 (Dense)</td><td>(None, 5)</td><td>645</td></tr></tbody></table><div>Total params: 813,733 Trainable params: 813,733 Non-trainable params: 0</div></div>	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
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2.	Accuracy	<p>Training Accuracy – 1.0000</p> <p>Validation Accuracy - 0.9801</p>	<pre> Epoch 1/20 /usr/local/lib/python3.7/dist-packages/ipykernel_launcher.py:1: UserWarning: `Model.fit_generator` is deprecated and will be removed in a future version. """Entry point for launching an IPython kernel. 526/526 [=====] - 15s 14ms/step - loss: 0.1821 - accuracy: 0.9360 - val_loss: 0.0239 - val_accuracy: 1.0000 Epoch 2/20 526/526 [=====] - 7s 14ms/step - loss: 0.0011 - accuracy: 1.0000 - val_loss: 0.0445 - val_accuracy: 0.9782 Epoch 3/20 526/526 [=====] - 8s 15ms/step - loss: 0.0567 - accuracy: 0.9848 - val_loss: 0.0134 - val_accuracy: 0.9924 Epoch 4/20 526/526 [=====] - 8s 15ms/step - loss: 3.1465e-04 - accuracy: 1.0000 - val_loss: 0.0102 - val_accuracy: 0.9981 Epoch 5/20 526/526 [=====] - 7s 13ms/step - loss: 1.1439e-04 - accuracy: 1.0000 - val_loss: 0.0106 - val_accuracy: 0.9943 Epoch 6/20 526/526 [=====] - 7s 14ms/step - loss: 7.3579e-05 - accuracy: 1.0000 - val_loss: 0.0095 - val_accuracy: 0.9943 Epoch 7/20 526/526 [=====] - 7s 14ms/step - loss: 4.1322e-05 - accuracy: 1.0000 - val_loss: 0.0113 - val_accuracy: 0.9924 Epoch 8/20 526/526 [=====] - 7s 13ms/step - loss: 2.7354e-05 - accuracy: 1.0000 - val_loss: 0.0182 - val_accuracy: 0.9915 Epoch 9/20 526/526 [=====] - 7s 13ms/step - loss: 2.4434e-05 - accuracy: 1.0000 - val_loss: 0.0106 - val_accuracy: 0.9924 Epoch 10/20 526/526 [=====] - 7s 14ms/step - loss: 3.6141e-05 - accuracy: 1.0000 - val_loss: 0.0481 - val_accuracy: 0.9763 Epoch 11/20 526/526 [=====] - 7s 14ms/step - loss: 1.0413e-05 - accuracy: 1.0000 - val_loss: 0.0256 - val_accuracy: 0.9877 Epoch 12/20 526/526 [=====] - 7s 14ms/step - loss: 7.0992e-06 - accuracy: 1.0000 - val_loss: 0.0167 - val_accuracy: 0.9915 Epoch 13/20 526/526 [=====] - 7s 13ms/step - loss: 4.4195e-06 - accuracy: 1.0000 - val_loss: 0.0143 - val_accuracy: 0.9915 Epoch 14/20 526/526 [=====] - 7s 14ms/step - loss: 7.4918e-06 - accuracy: 1.0000 - val_loss: 0.0251 - val_accuracy: 0.9877 Epoch 15/20 526/526 [=====] - 7s 14ms/step - loss: 2.5972e-06 - accuracy: 1.0000 - val_loss: 0.0189 - val_accuracy: 0.9915 Epoch 16/20 526/526 [=====] - 7s 14ms/step - loss: 1.5219e-06 - accuracy: 1.0000 - val_loss: 0.0251 - val_accuracy: 0.9886 Epoch 17/20 526/526 [=====] - 7s 14ms/step - loss: 5.9915e-06 - accuracy: 1.0000 - val_loss: 0.1436 - val_accuracy: 0.9725 Epoch 18/20 526/526 [=====] - 7s 14ms/step - loss: 1.1050e-06 - accuracy: 1.0000 - val_loss: 0.0635 - val_accuracy: 0.9763 Epoch 19/20 526/526 [=====] - 7s 14ms/step - loss: 2.1558e-06 - accuracy: 1.0000 - val_loss: 0.0413 - val_accuracy: 0.9810 Epoch 20/20 526/526 [=====] - 7s 14ms/step - loss: 7.1139e-07 - accuracy: 1.0000 - val_loss: 0.0497 - val_accuracy: 0.9801 &lt;keras.callbacks.History at 0x7efbd0810f10&gt; </pre>
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