

Project Development Phase

Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID18295
Project Name	Fertilizer recommendation system for disease prediction
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	<p>Vegetable model</p> <p>Fruit model</p>	<pre> Model: "sequential_3" Layer (type) Output Shape Param # ----- conv2d_3 (Conv2D) (None, 126, 126, 32) 896 max_pooling2d_2 (MaxPooling (None, 63, 63, 32) 0 2D) flatten_2 (Flatten) (None, 127008) 0 dense_6 (Dense) (None, 40) 5080360 dense_7 (Dense) (None, 20) 820 dense_8 (Dense) (None, 300) 6300 dense_9 (Dense) (None, 150) 45150 dense_10 (Dense) (None, 75) 11325 dense_11 (Dense) (None, 9) 684 Total params: 5,145,535 Trainable params: 5,145,535 Non-trainable params: 0 Model: "sequential_2" Layer (type) Output Shape Param # ----- conv2d_2 (Conv2D) (None, 126, 126, 32) 896 max_pooling2d_1 (MaxPooling (None, 63, 63, 32) 0 2D) flatten_1 (Flatten) (None, 127008) 0 dense_3 (Dense) (None, 40) 5080360 dense_4 (Dense) (None, 20) 820 dense_5 (Dense) (None, 6) 126 Total params: 5,082,202 Trainable params: 5,082,202 Non-trainable params: 0 </pre>
2.	Accuracy	<p>Training Accuracy(fruit) – 0.8302</p> <p>Validation Accuracy (fruit)- 0.6690</p>	<pre> 89/89 [=====] - 19s 213ms/step - loss: 2.0058 - accuracy: 0.2191 - val_loss: 7.0255 - val_accuracy: 0.1667 Epoch 20/20 89/89 [=====] - 21s 232ms/step - loss: 1.9033 - accuracy: 0.2978 - val_loss: 6.2714 - val_accuracy: 0.1407 </pre>

		Training Accuracy (vegetable)-0.2978 Validation Accuracy (Vegetable)-0.2407	<pre>loss: 0.8639 - accuracy: 0.6643 - val_loss: 40.9182 - val_accuracy: 0.6488 loss: 0.4604 - accuracy: 0.8302 - val_loss: 184.6315 - val_accuracy: 0.6690</pre>
3.	Class Detected	Class Detected(fruit)- 6 Class detected (Vegetable)- 9	<pre>Found 1686 images belonging to 6 classes. Found 5384 images belonging to 6 classes.</pre> <hr/> <pre>Found 3417 images belonging to 9 classes. Found 11386 images belonging to 9 classes.</pre>