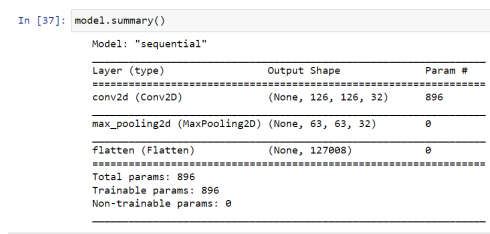
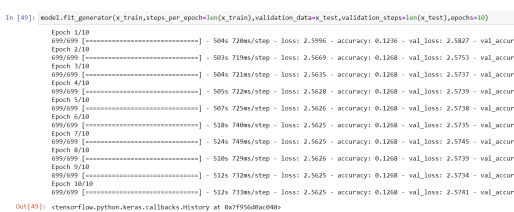


Project Development Phase Model Performance Test

Date	21 November 2022
Team ID	PNT2022TMID49457
Project Name	Fertilizers 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	Total params: 896 Trainable params: 896 Non-trainable params: 0	 <pre> In [37]: model.summary() Model: "sequential" Layer (type) Output Shape Param # ----- conv2d (Conv2D) (None, 126, 126, 32) 896 max_pooling2d (MaxPooling2D) (None, 63, 63, 32) 0 flatten (Flatten) (None, 127008) 0 ----- Total params: 896 Trainable params: 896 Non-trainable params: 0 </pre>
2.	Accuracy	Training Accuracy – 12.68 Validation Accuracy – 13.07	 <pre> In [40]: model.fit_generator(x_train,steps_per_epoch=len(x_train),validation_data=x_test,validation_steps=len(x_test),epochs=10) Epoch 1/10 690/690 [-----] - 504s 728u/step - loss: 2.5996 - accuracy: 0.1268 - val_loss: 2.5827 - val_accor Epoch 2/10 690/690 [-----] - 503s 719u/step - loss: 2.5659 - accuracy: 0.1268 - val_loss: 2.5753 - val_accor Epoch 3/10 690/690 [-----] - 504s 721u/step - loss: 2.5635 - accuracy: 0.1268 - val_loss: 2.5737 - val_accor Epoch 4/10 690/690 [-----] - 505s 722u/step - loss: 2.5628 - accuracy: 0.1268 - val_loss: 2.5739 - val_accor Epoch 5/10 690/690 [-----] - 507s 725u/step - loss: 2.5628 - accuracy: 0.1268 - val_loss: 2.5738 - val_accor Epoch 6/10 690/690 [-----] - 526s 748u/step - loss: 2.5625 - accuracy: 0.1268 - val_loss: 2.5735 - val_accor Epoch 7/10 690/690 [-----] - 526s 749u/step - loss: 2.5625 - accuracy: 0.1268 - val_loss: 2.5735 - val_accor Epoch 8/10 690/690 [-----] - 510s 729u/step - loss: 2.5625 - accuracy: 0.1268 - val_loss: 2.5739 - val_accor Epoch 9/10 690/690 [-----] - 512s 732u/step - loss: 2.5625 - accuracy: 0.1268 - val_loss: 2.5734 - val_accor Epoch 10/10 690/690 [-----] - 512s 732u/step - loss: 2.5625 - accuracy: 0.1268 - val_loss: 2.5743 - val_accor Out[40]: <tensorflow.python.keras.callbacks.History at 0x7f9508ac0480> </pre>

Model Summary

```
In [37]: model.summary()
```

Model: "sequential"

Layer (type)	Output Shape	Param #
=====		
conv2d (Conv2D)	(None, 126, 126, 32)	896

max_pooling2d (MaxPooling2D)	(None, 63, 63, 32)	0

flatten (Flatten)	(None, 127008)	0
=====		
Total params: 896		
Trainable params: 896		
Non-trainable params: 0		
=====		

Accuracy

```
In [49]: model.fit_generator(x_train,steps_per_epoch=len(x_train),validation_data=x_test,validation_steps=len(x_test),epochs=10)
```

```
Epoch 1/10
699/699 [=====] - 504s 720ms/step - loss: 2.5996 - accuracy: 0.1236 - val_loss: 2.5827 - val_accuracy: 0.1307
Epoch 2/10
699/699 [=====] - 503s 719ms/step - loss: 2.5669 - accuracy: 0.1268 - val_loss: 2.5753 - val_accuracy: 0.1307
Epoch 3/10
699/699 [=====] - 504s 721ms/step - loss: 2.5635 - accuracy: 0.1268 - val_loss: 2.5737 - val_accuracy: 0.1307
Epoch 4/10
699/699 [=====] - 505s 722ms/step - loss: 2.5628 - accuracy: 0.1268 - val_loss: 2.5739 - val_accuracy: 0.1307
Epoch 5/10
699/699 [=====] - 507s 725ms/step - loss: 2.5626 - accuracy: 0.1268 - val_loss: 2.5738 - val_accuracy: 0.1307
Epoch 6/10
699/699 [=====] - 518s 740ms/step - loss: 2.5625 - accuracy: 0.1268 - val_loss: 2.5735 - val_accuracy: 0.1307
Epoch 7/10
699/699 [=====] - 524s 749ms/step - loss: 2.5625 - accuracy: 0.1268 - val_loss: 2.5745 - val_accuracy: 0.1307
Epoch 8/10
699/699 [=====] - 510s 729ms/step - loss: 2.5626 - accuracy: 0.1268 - val_loss: 2.5739 - val_accuracy: 0.1307
Epoch 9/10
699/699 [=====] - 512s 732ms/step - loss: 2.5625 - accuracy: 0.1268 - val_loss: 2.5734 - val_accuracy: 0.1307
Epoch 10/10
699/699 [=====] - 512s 733ms/step - loss: 2.5625 - accuracy: 0.1268 - val_loss: 2.5741 - val_accuracy: 0.1307
```

```
Out[49]: <tensorflow.python.keras.callbacks.History at 0x7f956d0ac040>
```