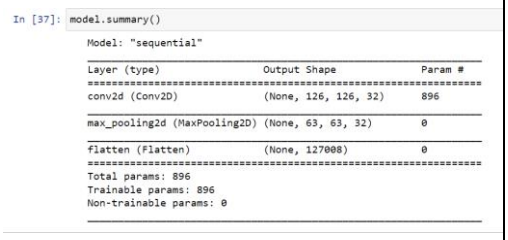
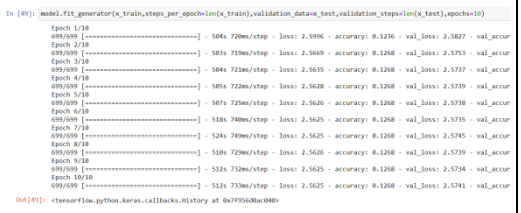
Project Development Phase
Model Performance Test

Date	21 November 2022
Team ID	PNT2022TMID50383
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	
2.	Accuracy	Training Accuracy – 12.68 Validation Accuracy – 13.07	

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>
```