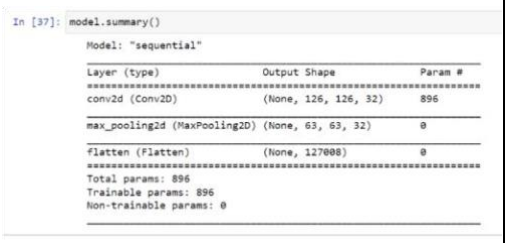
Project Development Phase Model
Performance Test

Date	21 November 2022
Team ID	PNT2022TMID38040
Project Name	Emerging methods for early detection of forest fires.
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 [33]:
```
model.fit_generator(x_train,steps_per_epoch=len(x_train),validation_data=x_test,validation_steps=len(x_test),epochs=10)
```

```
/opt/conda/envs/Python-3.9/lib/python3.9/site-packages/tensorflow/python/keras/engine/training.py:1940: UserWarning: `Model.fit_generator` is deprecated and will be removed in a future version. Please use `Model.fit`, which supports generators.
  warnings.warn('`Model.fit_generator` is deprecated and '
Epoch 1/10
77/77 [==============================] - 58s 741ms/step - loss: 0.9698 - accuracy: 0.8657 - val_loss: 0.5529 - val_accuracy: 0.8971
Epoch 2/10
77/77 [==============================] - 55s 717ms/step - loss: 0.1668 - accuracy: 0.9383 - val_loss: 0.3615 - val_accuracy: 0.8824
Epoch 3/10
77/77 [==============================] - 56s 722ms/step - loss: 0.1439 - accuracy: 0.9520 - val_loss: 0.3120 - val_accuracy: 0.8971
Epoch 4/10
77/77 [==============================] - 57s 736ms/step - loss: 0.1347 - accuracy: 0.9509 - val_loss: 0.3402 - val_accuracy: 0.9118
Epoch 5/10
77/77 [==============================] - 58s 755ms/step - loss: 0.1265 - accuracy: 0.9552 - val_loss: 0.3401 - val_accuracy: 0.9412
Epoch 6/10
77/77 [==============================] - 54s 700ms/step - loss: 0.1274 - accuracy: 0.9552 - val_loss: 0.3368 - val_accuracy: 0.8971
Epoch 7/10
77/77 [==============================] - 53s 686ms/step - loss: 0.0914 - accuracy: 0.9678 - val_loss: 0.4035 - val_accuracy: 0.9118
Epoch 8/10
77/77 [==============================] - 53s 696ms/step - loss: 0.1096 - accuracy: 0.9607 - val_loss: 0.3181 - val_accuracy: 0.9265
Epoch 9/10
77/77 [==============================] - 54s 699ms/step - loss: 0.0759 - accuracy: 0.9743 - val_loss: 0.3875 - val_accuracy: 0.9118
Epoch 10/10
77/77 [==============================] - 56s 726ms/step - loss: 0.1005 - accuracy: 0.9651 - val_loss: 0.3555 - val_accuracy: 0.9265
```

Out[33]: