Project Development Phase
Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID48153
Project Name	Emerging Methods for Early Detection of Forest Fires
Maximum Marks	10 Marks

Model Performance Testing:

S.No.	Parameter	Values	Screenshot
| 1. | Model Summary | **3,453,213** | ```python
model = keras.Sequential()
model.add(keras.layers.Conv2D(32,(3,3),activation='relu',input_shape=(150,150,3)))
model.add(keras.layers.MaxPool2D(2,2))
model.add(keras.layers.Conv2D(64,(3,3),activation='relu'))
model.add(keras.layers.MaxPool2D(2,2))
model.add(keras.layers.Conv2D(128,(3,3),activation='relu'))
model.add(keras.layers.MaxPool2D(2,2))
model.add(keras.layers.Conv2D(128,(3,3),activation='relu'))
model.add(keras.layers.MaxPool2D(2,2))
model.add(keras.layers.Flatten())
model.add(keras.layers.Dense(512,activation='relu'))
model.add(keras.layers.Dense(1,activation='sigmoid'))


model.add(Dense(150,activation='relu'))
model.add(Dense(1,activation='sigmoid'))
``` |
| 2. | Accuracy | Training Accuracy – 0.9835 <br><br> Validation Accuracy - 0.9917 | ```
Epoch 1/10
14/14 [==============================] - 89s 6s/step - loss: 0.6689 - accuracy: 0.6445 - val_loss: 0.6578 - val_accuracy: 0.5950
Epoch 2/10
14/14 [==============================] - 40s 3s/step - loss: 0.6210 - accuracy: 0.6445 - val_loss: 0.5821 - val_accuracy: 0.5950
Epoch 3/10
14/14 [==============================] - 40s 3s/step - loss: 0.5583 - accuracy: 0.6445 - val_loss: 0.5477 - val_accuracy: 0.5950
Epoch 4/10
14/14 [==============================] - 40s 3s/step - loss: 0.5172 - accuracy: 0.6445 - val_loss: 0.5294 - val_accuracy: 0.5950
Epoch 5/10
14/14 [==============================] - 38s 3s/step - loss: 0.5292 - accuracy: 0.6445 - val_loss: 0.5148 - val_accuracy: 0.5950
Epoch 6/10
14/14 [==============================] - 41s 3s/step - loss: 0.4795 - accuracy: 0.6445 - val_loss: 0.4566 - val_accuracy: 0.5950
Epoch 7/10
14/14 [==============================] - 42s 3s/step - loss: 0.4416 - accuracy: 0.6445 - val_loss: 0.4153 - val_accuracy: 0.5950
Epoch 8/10
14/14 [==============================] - 38s 3s/step - loss: 0.4363 - accuracy: 0.6445 - val_loss: 0.4070 - val_accuracy: 0.5950
Epoch 9/10
14/14 [==============================] - 39s 3s/step - loss: 0.4300 - accuracy: 0.8349 - val_loss: 0.3776 - val_accuracy: 0.9835
Epoch 10/10
14/14 [==============================] - 42s 3s/step - loss: 0.4014 - accuracy: 0.9220 - val_loss: 0.3651 - val_accuracy: 0.9917
``` |