EARLY DETECTION OF FOREST FIRE USING DEEP LEARNING

MODEL BUILDING

INITIALIZING THE MODEL

Team ID	PNT2022TMID12754
Project Name	Project-Early detection of forest fire using deep learning

INITIALILIZING THE MODEL:

Keras contains 2 ways to define the neural network:

Sequential

11/7/22, 12:35 AM

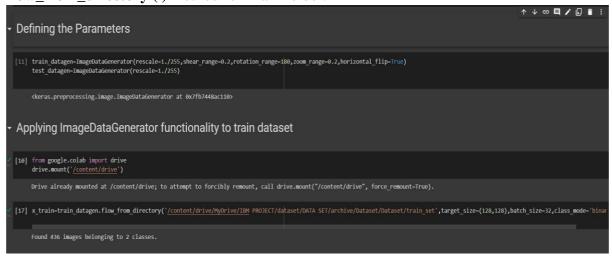
Function API

The Sequential class is used to define linear initializations for network layers, which together form a model. In the example below, we use the Sequential constructor to create a model and add layers to it using the add() method.

Importing Keras libraries
 Importing ImageDataGenerator from Keras
 Importing ImageDataGenerator from Keras
 [13] from matplotlib import pyplot as plt from keras.preprocessing.image import ImageDataGenerator
 Defining the Parameters
 train_datagen=ImageDataGenerator(rescale=1./255,shear_range=0.2,rotation_range=180,zoom_range=0.2,horizontal_flip=True) test_datagen=ImageDataGenerator at @x7fb7448ac110>

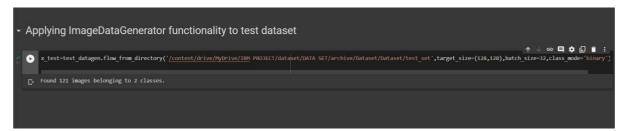
APPLYING ImageDataGenerator to train dataset:

flow_from_directory () method for Train folder.



APPLYING ImageDataGenerator to test dataset:

Applying the **flow_from_directory** () method for test folder.



IMPORTING MODEL BUILDING LIBRARIES:

11/8/22, 1:16 AM Main code - Colaborato

Importing Model Building Libraries

```
#to define the linear Initialisation import sequential
from keras.models import Sequential
#to add layers import Dense
from keras.layers import Dense
#to create Convolutional kernel import convolution2D
from keras.layers import Convolution2D
#import Maxpooling layer
from keras.layers import MaxPooling2D
#import flatten layer
from keras.layers import Flatten
import warnings
warnings.filterwarnings('ignore')
```

INITIALIZING THE MODEL:

Initializing the model

model=Sequential()