EARLY DETECTION OF FOREST FIRE USING DEEP LEARNING

MODEL BUILDING

IMPORTING THE MODEL BUILDING LIBRARIES

Team ID	PNT2022TMID33568
Project Name	Project-Early detection of forest fire using deep learning

IMPORTING THE MODEL BUILDING LIBRARIES:

Import the libraries that are required to initialize the neural network layer, create and add different layers to the neural network model. The below libraries are imported and executed.

11/7/22, 12:35 AM Untitled8.ipynb - Colaboratory

Importing Keras libraries

import keras

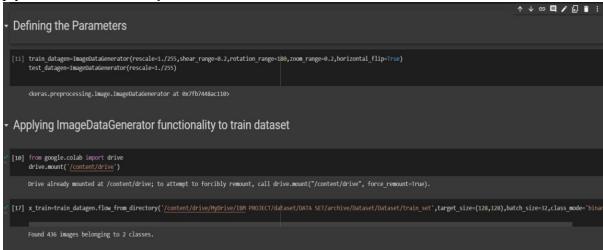
Importing ImageDataGenerator from Keras

from keras.preprocessing.image import ImageDataGenerator

→ Importing Keras libraries
[1] import 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(rescale=1./255)
[₃ <keras.preprocessing.image.imagedatagenerator 0x7fb7448ac110="" at=""></keras.preprocessing.image.imagedatagenerator>

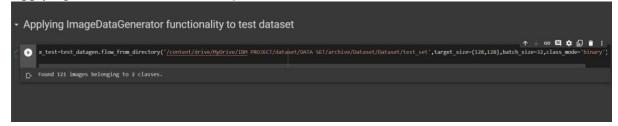
APPLYING ImageDataGenerator to train dataset:

plyflow_from_directory ()methodfor Train folder.



APPLYING ImageDataGenerator to test dataset:

Applying the **flow_from_directory** () methodfortest folder.



IMPORTING MODEL BUILDING LIBRARIES:

11/8/22, 1:16 AM

Main code - Colaboratory

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')
```