EARLY DETECTION OF FOREST FIRE USING DEEP LEARNING

MODEL BUILDING

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Project Name	Project-Early detection of forest fire using deep learning

Import the Model Building Libraries

1.Importing the model buliding Libraries

```
[1] import keras
    from keras.preprocessing.image import ImageDataGenerator

[2] #Define the parameters/arguments for ImageDataGenerator class
    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)

[6] from google.colab import drive
    drive.mount('/content/drive')

    Mounted at /content/drive

[7] cd /content/drive/MyDrive/ibm

    /content/drive/MyDrive/ibm

[8] x = train_datagen.flow_from_directory(r"/content/drive/MyDrive/ibm/fire/dataset/train_set",target_size=(256, 256), class_mode='categorical', batch_size=32)

    Found 16 images belonging to 2 classes.

[9] y= test_datagen.flow_from_directory(r"/content/drive/MyDrive/ibm/fire/dataset/test_set",target_size=(256, 256), class_mode='categorical', batch_size=32)

    Found 19 images belonging to 2 classes.
```

```
#import model building libraries
#To define Linear initialisation import Sequential
from keras.models import Sequential
#To add layers import Dense
from keras.layers import Dense
#To create Convolution 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')
```