

In [1]:

```
import keras
from keras.preprocessing.image import ImageDataGenerator
```

In [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)
```

In [3]:

```
#Applying ImageDataGenerator functionality to trainset
x_train=train_datagen.flow_from_directory('/content/drive/MyDrive/Dataset/Dataset/train_set', target_size=(128,128), batch_size=32, class_mode='binary')
```

Found 436 images belonging to 2 classes.

In [4]:

```
#Applying ImageDataGenerator functionality to testset
x_test=test_datagen.flow_from_directory('/content/drive/MyDrive/Dataset/Dataset/test_set', target_size=(128,128), batch_size=32, class_mode='binary')
```

Found 121 images belonging to 2 classes.

In [5]:

```
#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')
```

In [7]:

```
#initializing the model
model=Sequential()
```

In [8]:

```
#add convolutional layer
model.add(Convolution2D(32, (3,3), input_shape=(128,128,3), activation='relu'))
#add maxpooling layer
model.add(MaxPooling2D(pool_size=(2,2)))
#add flatten layer
model.add(Flatten())
```