INITIALIZE THE MODEL

1. Importing The Model Building Libraries

In [26]:
```
from tensorflow.keras.preprocessing.image import ImageDataGenerator
from keras.models import Sequential
from keras.layers import Dense
from keras.layers import Conv2D
from keras.layers import MaxPooling2D
from keras.layers import Flatten
from tensorflow.keras.models import load_model
from tensorflow.keras.preprocessing import image
import numpy as np
```

2.Define the parameters /arguments for ImageDataGenerator class

In [27]:
```
traindatagen = ImageDataGenerator(rescale=1./255,shear_range=0.2,zoom_range=0.2,horizontal_flip=True)
```

In [28]:
```
testdatagen = ImageDataGenerator(rescale=1./255)
```

3.Applying ImageDataGenerator functionality to trainset and testset

In [29]:
```
x_train = traindatagen.flow_from_directory('Dataset/train',target_size=(64,64),batch_size=5,color_mode='grayscale',class_mode='ca
```

```
Found 594 images belonging to 6 classes.
```

In [30]:
```
x_test = testdatagen.flow_from_directory('Dataset/test',target_size=(64,64),batch_size=5,color_mode='grayscale',class_mode='categ
```

```
Found 30 images belonging to 6 classes.
```

4. Initializing The Model

In [31]:
```
model = Sequential()
```