Importing the Model Building Libraries

```
In [1]:  import numpy as np
         import tensorflow
         from tensorflow.keras.models import Sequential
         from tensorflow.keras import layers
         from tensorflow.keras.layers import Dense,Flatten
         from tensorflow.keras.layers import Conv2D,MaxPooling2D,Dropout
         from keras.preprocessing.image import ImageDataGenerator
```

Image Data Agumentation

```
In [2]:  train_datagen = ImageDataGenerator(rescale=1./255,shear_range=0.2,zoom_range=0.2,horizontal_flip=True)
         test_datagen=ImageDataGenerator(rescale=1./255)
```

Loading our data and performing data agumentation

```
In [12]: x_train = train_datagen.flow_from_directory(
             r'/Malan/IBM Stuff/Project and Design Phase/Data Set/Data Set/train',
             target_size=(64, 64),batch_size=5,color_mode='rgb',class_mode='sparse')

         x_test = test_datagen.flow_from_directory(
             r'/Malan/IBM Stuff/Project and Design Phase/Data Set/Data Set/test',
             target_size=(64, 64),batch_size=5,color_mode='rgb',class_mode='sparse')
```

```
Found 2626 images belonging to 5 classes.
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```