

# Image Preprocessing

## Import ImageDataGenerator Library

In [1]:

```
import tensorflow as tf
from tensorflow.keras.models import Sequential
from tensorflow.keras.layers import Dense, Conv2D, Flatten, Dropout,
MaxPooling2D
from tensorflow.keras.preprocessing.image import ImageDataGenerator

import the imagedatagenerator library

from keras.preprocessing.image import imagedatagenerator

image data agumentation
#setting parameter for image data agumentation to the traing data

train_datagen =
Imagedatagenerator(rescale=1./255,shear_range=0.2,zoom_range=0.2,horizontal
_flip=True)

#Image data aumentation to the testing data

test_datagen=Imagedatagenerator(rescale=1./255)

loading our data and performing data agumentation

#performing data agumentation to train data
x_train =
train_datagen.flow_from_directory('../data/train_set',target_size=(64,64),b
atch_size=5,color_mode='rgb',class_mode='categorical')

#performing data agu,mentation to test data
x_test =
test_datagen.flow_from_directory('../data/test_set',target_size=(64,64),bat
ch_size=5,color_mode='rgb',class_mode='categorical')

Found 742 images belonging to 4 classes.
Found 198 images belonging to 4 classes.
```