IMAGE PREPROCESSING

APPLY IMAGE DATAGENERATOR FUNCTIONALITY TO TRAINSET AND TESTSET

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Let us apply ImageDataGenerator functionality to Trainset and Testset by using the following code

For Training set using flow_from_directory function.

This function will return batches of images from the subdirectories 'apples', 'banana', 'orange', 'pineapple', 'watermelon' together with labels 0 to 4{'apples': 0, 'banana': 1, 'orange': 2, 'pineapple': 3, 'watermelon': 4}

Arguments:

- directory: Directory where the data is located. If labels are "inferred", it should contain subdirectories, each containing images for a class. Otherwise, the directory structure is ignored.
- batch_size: Size of the batches of data. Default: 32.
- target_size: Size to resize images after they are read from disk.
- class_mode:

- ‘int': means that the labels are encoded as integers (e.g. for sparse_categorical_crossentropy loss).

- 'categorical' means that the labels are encoded as a categorical vector (e.g. for categorical_crossentropy loss).

- 'binary' means that the labels (there can be only 2) are encoded as float32 scalars with values 0 or 1 (e.g. for binary_crossentropy).

- None (no labels).

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```
x_train=train_datagen.flow_from_directory('/content/drive/MyDrive/Dataset/TRAIN_SET',(64,64),batch_size=5,color_mode='rgb',class_mode='sparse')
x_test=test_datagen.flow_from_directory('/content/drive/MyDrive/Dataset/TEST_SET',(64,64),batch_size=5,color_mode='rgb',class_mode='sparse')
```

```
Found 2626 images belonging to 5 classes.
Found 1055 images belonging to 5 classes.
```