Image Preprocessing

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Project Name	AI-powered Nutrition Analyzer forFitness Enthusiasts

Apply Image DataGenerator Functionality To Trainset And Testset

Apply ImageDataGenerator functionality to Trainset and Testset by using thefollowing code

For Training set using flow_from_directory function.

This function will return batches of images from the subdirectories together withlabels

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. forsparse_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 are encoded as float32 scalars with values 0or 1 (e.g. for binary_crossentropy).

```
[ ] xtrain = train_datagen.flow_from_directory('Food/Train data/',
                                               target_size=(64,64),
                                               class_mode='categorical',
                                               batch_size=100)
```

```
Found 152 images belonging to 10 classes.
```

```
xtest = test_datagen.flow_from_directory('Food/Testdata',
                                         target_size=(64,64),
                                         class_mode='categorical',
                                         batch_size=100)
```

```
Found 152 images belonging to 10 classes.
```