Image Pre-processing Phase

Configure ImageDataGenerator Class

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Project Name	AI-Powered Nutrition Analyzer For Fitness Enthusiasts

ImageDataGenerator class is instantiated and the configuration for the types of data augmentation

There are five main types of data augmentation techniques for image data; specifically:

Image shifts via the width_shift_range and height_shift_range arguments.
The image flips via the horizontal_flip and vertical_flip arguments.
Image rotations via the rotation_range argument
Image brightness via the brightness_range argument.
Image zoom via the zoom_range argument.

An instance of the ImageDataGenerator class can be constructed for train and test.

```
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 agumentation to the testing data
test_datagen=ImageDataGenerator(rescale=1./255)
```

Screenshot:

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```
[10]: #Setting parameter for Image Data augmentation to the training data
      train_datagen = ImageDataGenerator(rescale=1./255,shear_range=0.2,zoom_range=0.2,horizontal_flip=True)

      #Image Data augmentation to the testing data
      test_datagen = ImageDataGenerator(rescale=1./255)
```