Image Processing

Apply Image Data Generator Functionality to Train set and Test set

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Project Name	AI-powered Nutrition Analyzer for FitnessEnthusiasts

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}

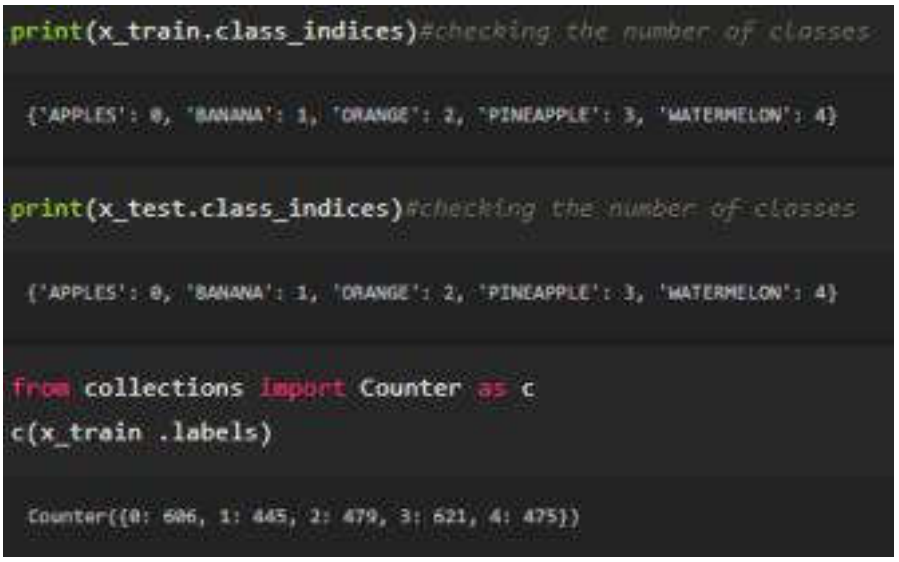
Arguments:

- 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).

We notice that 2626 images are belonging to 5 classes for training and 1055 images belong to 5 classes for testing purposes.



Here we are checking the number of classes in train and test data and counting the number of images in each class of train set data by using the counter function.