

Applying ImageDataGenerator Functionality To Trainset And Testset

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PROJECT	Emerging Methods for Early Detection of Forest Fires

The ImageDataGenerator class has three methods **flow ()**, **flow_from_directory ()**, and **flow_from_dataframe ()** to read the images from a big numpy array and folders containing images.

flow_from_directory () expects at least one directory under the given directory path.

Task1: Apply **flow_from_directory ()** method for Train folder.

```
In [ ]: #: Applying ImageDataGenerator functionality to trainset.  
x_train = train_datagen.flow_from_directory(r'./Main Project/Dataset Main/train_set',  
                                             target_size = (128,128),  
                                             batch_size = 32,  
                                             class_mode = 'binary')
```

Task 2: Now will apply the **flow_from_directory ()** method for test folder.

```
In [ ]: #: Applying ImageDataGenerator functionality to testset.  
x_test = test_datagen.flow_from_directory(r'./Main Project/Dataset Main/test_set',  
                                          target_size = (128,128),  
                                          batch_size = 32,  
                                          class_mode = 'binary')
```

- The directory must be set to the path where your training folders are present.
- The target_size is the size of your input images, every image will be resized to this size.
- batch_size: No. of images to be yielded from the generator per batch.
- “batch_size” in both train and test generators is to some number that divides your total number of images in your train set and train set respectively.
- class_mode: Set “binary” if you have only two classes to predict, if not set to “categorical”.

