PROJECT DEVELOPMENT PHASE
SPRINT-II

Date	05 November 2022
TeamID	PNT2022TMID49469
Project Name	AI-Powered Nutrition Analyzer For Fitness Enthusiasts
MaximumMarks	4Marks

Image Preprocessing

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#Import The ImageDataGenerator Library:

```
from keras.datasets import mnist
from tensorflow.keras import Sequential
from keras.layers import Dense, Dropout
from keras.utils import np_utils
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
%matplotlib inline
from tensorflow.keras.preprocessing.image import ImageDataGenerator
```

#Define the parameters /arguments for imagedatagenerator class :

```
train_datagen = ImageDataGenerator(rescale=1./255,shear_range=0.2,zoom_range=0.2,
horizontal_flip=True,vertical_flip=True)

test_datagen = ImageDataGenerator(rescale=1./255)
```

#Applying ImageDataGenerator functionality to trainset and testset :

```
x_train = train_datagen.flow_from_directory(r"/content/drive/MyDrive/training",target_size=(64,64),batch_size=32,
color_mode="rgb",class_mode="sparse")


x_test = test_datagen.flow_from_directory(r"/content/drive/MyDrive/testing",target_size=(64,64),batch_size=32,
color_mode="rgb",class_mode="sparse")

print(x_train.class_indices)

print(x_test.class_indices)

from collections import Counter as c
c(x_train.labels)
```