

PROJECT DEVELOPMENT PHASE

SPRINT-II

Date	05 November 2022
TeamID	PNT2022TMID31264
Project Name	AI-Powered Nutrition Analyzer For Fitness Enthusiasts
Maximum Marks	4Marks

Image Preprocessing

#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)
```

