Sprint 1 - Task 2

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Project Name	AI Based Food Analyzer for fitness Enthusiasts

Importing Library

Importing the Necceasary Libraries into the workspace

Importing Neccessary Libraries

```
[ ]  #import keras libraries
     import numpy as np
     import tensorflow
     from tensorflow.keras.models import Sequential
     from tensorflow.keras import layers
     from keras.layers import Dense
     from keras.layers import Conv2D
     from keras.layers import MaxPooling2D,Dropout
     from keras.layers import Flatten
     from keras.preprocessing.image import ImageDataGenerator
```

Performing Image Preprocessing

Image Data Agumentation

```
[ ]  #setting parameter for Image Data agumentation to the training 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)
```

Loading our data and performing data agumentation

```
[ ]  #performing data agumentation to train data
     x_train = train_datagen.flow_from_directory(
         r'/content/Dataset/TRAIN_SET',
         target_size=(64, 64),batch_size=5,color_mode='rgb',class_mode='sparse')
     #performing data agumentation to test data
     x_test = test_datagen.flow_from_directory(
         r'/content/Dataset/TEST_SET',
         target_size=(64, 64),batch_size=5,color_mode='rgb',class_mode='sparse')
```