AI-Powered Nutrition Analyzer for Fitness Enthusiasts

Model building

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Project Name	AI-Powered Nutrition Analyzer for Fitness Enthusiasts

Importing the model building libraries

1. Importing The Model Building Libraries

```
[1] import numpy as np
    import tensorflow as tf
    from tensorflow.keras.models import Sequential
    from tensorflow.keras import layers
    from tensorflow.keras.layers import Dense,Flatten
    from tensorflow.keras.layers import Conv2D,MaxPooling2D,Dropout
```

```
[10] from keras.preprocessing.image import ImageDataGenerator
```

```
[6] from google.colab import drive
    drive.mount('/content/drive')
```

```
Mounted at /content/drive
```

```
[8] cd '/content/drive/MyDrive'
```

```
/content/drive/MyDrive
```

```
[11] train_datagen = ImageDataGenerator(rescale=1./255,shear_range=0.2,zoom_range=0.2,horizontal_flip=True)
     test_datagen=ImageDataGenerator(rescale=1./255)
```

ImageDataGenerator: train_datagen

keras.preprocessing.image.ImageDataGenerator instance

```
#performin
x_train = train_datagen.flow_from_directory(
    r'/content/drive/MyDrive/ibm/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/drive/MyDrive/ibm/TEST_SET',
    target_size=(64, 64),batch_size=5,color_mode='rgb',class_mode='sparse')
```

```
Found 2626 images belonging to 5 classes.
Found 1055 images belonging to 5 classes.
```