Al Powered Nutrition Analyzer for Fitness Enthusiasts Project development phase

Sprint 1

Date	15.11.22
Team ID	PNT2022TMID37915
Project name	Al Powered Nutrition Analyzer for Fitness
	Enthusiasts

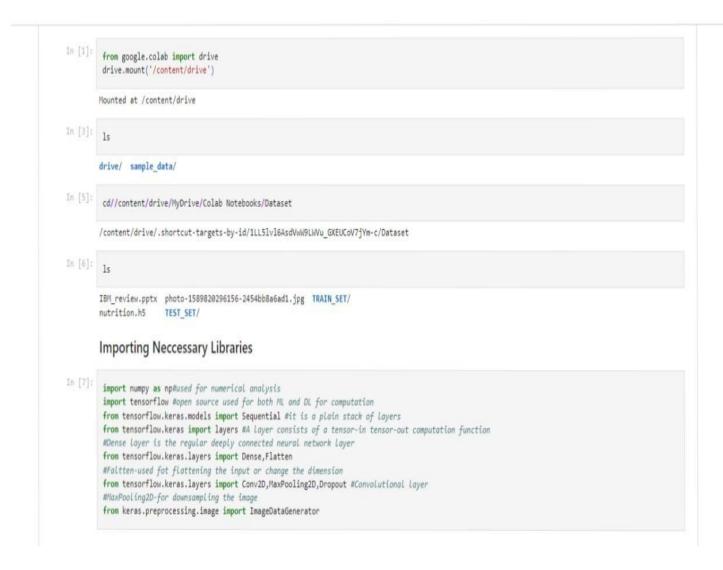


Image Data Agumentation

```
In [8]: #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

```
In [9]: #performing data agumentation to train data
          x_train = train_datagen.flow_from_directory(
              r'/content/drive/MyDrive/Colab Notebooks/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/drive/MyDrive/Colab Notebooks/Dataset/TEST_SET',
              target_size=(64, 64),batch_size=5,color_mode='rgb',class_mode='sparse')
         Found 4138 images belonging to 5 classes.
         Found 929 images belonging to 3 classes.
          print(x_train.class_indices)#checking the number of classes
         {'APPLES': 0, 'BANANA': 1, 'ORANGE': 2, 'PINEAPPLE': 3, 'WATERMELON': 4}
In [11]:
          print(x_test.class_indices)#checking the number of classes
          {'APPLES': 0, 'BANANA': 1, 'ORANGE': 2}
In [12]:
          from collections import Counter as c
          c(x_train .labels)
In [12]:
          from collections import Counter as c
          c(x_train .labels)
Out[12]: Counter({0: 995, 1: 1374, 2: 1019, 3: 275, 4: 475})
```