

Model Building

Importing The Model Building Libraries

Title	AI powered nutrition analyzer for fitness enthusiasts
College Name	AVS College of Technology
Team Id	PNT2022TMID42147

```
In [1]: import numpy as np
import tensorflow
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
from keras.preprocessing.image import ImageDataGenerator
```

Image Data Augmentation

```
In [2]: train_datagen = ImageDataGenerator(rescale=1./255, shear_range=0.2, zoom_range=0.2, horizontal_flip=True)
test_datagen=ImageDataGenerator(rescale=1./255)
```

Loading our data and performing data augmentation

```
In [12]: x_train = train_datagen.flow_from_directory(
    r'/MaIan/IBM Stuff/Project and Design Phase/Data Set/Data Set/train',
    target_size=(64, 64), batch_size=5, color_mode='rgb', class_mode='sparse')

x_test = test_datagen.flow_from_directory(
    r'/MaIan/IBM Stuff/Project and Design Phase/Data Set/Data Set/test',
    target_size=(64, 64), batch_size=5, color_mode='rgb', class_mode='sparse')
```

Found 2626 images belonging to 5 classes.

Found 2626 images belonging to 5 classes.