

Model Building

Test The Model

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

Test The Model:

```
In [22]: from tensorflow.keras.models import load_model
         from tensorflow.keras.preprocessing import image
         import numpy as np
```

```
In [23]: img = image.load_img("C:/Malan/IBM Stuff/Project and Design Phase/Data Set/Data Set/train/ORANGE/0_100.jpg",target_size= (64,64))
         img
```



```
In [24]: x=image.img_to_array(img)
```

```
In [25]: x
```

```
Out[25]: array([[241., 255., 254.],
                [250., 255., 255.],
                [255., 253., 255.],
                ...,
                [255., 255., 255.],
                [255., 255., 255.],
                [255., 255., 255.]],
               [[250., 255., 255.],
                [255., 254., 255.],
                [255., 252., 252.],
                ...,
                [255., 255., 255.],
                [255., 255., 255.],
                [255., 255., 255.]],
               [[255., 253., 255.],
                [255., 253., 250.],
                [255., 253., 249.],
                ...,
                [255., 255., 255.],
                [255., 255., 255.],
                [255., 255., 255.]])
```

```

[[255., 255., 255.],
 [255., 255., 255.],
 [255., 255., 255.],
 ...,
 [255., 255., 255.],
 [255., 255., 255.],
 [255., 255., 255.]],

[[255., 255., 255.],
 [255., 255., 255.],
 [255., 255., 255.],
 ...,
 [255., 255., 255.],
 [255., 255., 255.],
 [255., 255., 255.]],

[[255., 255., 255.],
 [255., 255., 255.],
 [255., 255., 255.],
 ...,
 [255., 255., 255.],
 [255., 255., 255.],
 [255., 255., 255.]]], dtype=float32)

```

In [25]: `x.ndim`

Out[25]: 3

In [27]: `x=np.expand_dims(x,axis=0)`

In [28]: `x.ndim`

Out[28]: 4

In [29]: `pred = classifier.predict(x)`

1/1 [=====] - 0s 213ms/step

In [30]: `pred`

Out[30]: `array([0., 0., 1., 0., 0.], dtype=float32)`

In [31]: `labels=['APPLES', 'BANANA', 'ORANGE', 'PINEAPPLE', 'WATERMELON']`
`labels[np.argmax(pred)]`

Out[31]: 'ORANGE'

In []: