Model Building Phase
Test The Model

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Project Name	AI-Powered Nutrition Analyzer For Fitness Enthusiasts

Evaluation is a process during the development of the model to check whether the model is the best fit for the given problem and corresponding data.
Load the saved model using load_model

```
### Predicting our results

from tensorflow.keras.models import load_model
from keras.preprocessing import image
model = load_model("nutrition.h5") #loading the model for testing
```

Taking an image as input and checking the results

```
img = image.load_img(r"C:\Users\DELL\Desktop\Desk Files\Nutrition Analysis Using Image Classification\
                     Sample_Images\Test_Image5.jpg",
                     grayscale=False,target_size= (64,64))#loading of the image
x = image.img_to_array(img)#image to array
x = np.expand_dims(x,axis = 0)#changing the shape
pred = model.predict_classes(x)#predicting the classes
pred
```

By using the model we are predicting the output for the given input image

```
index=['APPLES', 'BANANA', 'ORANGE','PINEAPPLE','WATERMELON']
result=str(index[pred[0]])
result

'PINEAPPLE'
```

The predicted class index name will be printed here.

Screenshots:

Test The Model

```
from tensorflow.keras.models import load_model
from tensorflow.keras.preprocessing import image

#Loading the model for testing
model = load_model('Fruit_Nutrition_Fact')
```

```
img=image.load_img(r"D:\Nutrition Analysis Using Image Classification\01.jpg",grayscale=False,target_size=(64,64))

#Image to array
x = image.img_to_array(img)

#Changing the Shape
x = np.expand_dims(x,axis = 0)

#Predicting the classes
y=np.argmax(model.predict(x),axis=1)
index = ['APPLES','BANANA','ORANGE','PINEAPPLE','WATERMELON']
index[y[0]]
```