Application Building

Routing To The Html Page

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Project Name	AI-Powered Nutrition Analyzer For Fitness Enthusiasts

- "home.html" is rendered when the home button is clicked on the UI.

```
@app.route('/')# route to display the home page
def home():
    return render_template('home.html')#rendering the home page

@app.route('/image1',methods=['GET','POST'])# routes to the index html
def image1():
    return render_template("image.html")
```

- When "image is uploaded "on the UI, the launch function is executed.

```
@app.route('/predict',methods=['GET', 'POST'])# route to show the predictions in a web UI
def launch():
```

- It will take the image request and we will be storing that image in our local system then we will convert the image into our required size and finally, we will be predicting the results with the help of our model which we trained and depending upon the class identified we will showcase the class name and its properties by rendering the respective html.

```
@app.route('/predict',methods=['GET', 'POST'])# route to show the predictions in a web UI
def launch():
    if request.method=='POST':
        f=request.files['file'] #requesting the file
        basepath=os.path.dirname('__file__')#storing the file directory
        filepath=os.path.join(basepath,"uploads",f.filename)#storing the file in uploads folder
        f.save(filepath)#saving the file

        img=image.load_img(filepath,target_size=(64,64)) #load and reshaping the image
        x=image.img_to_array(img)#converting image to an array
        x=np.expand_dims(x,axis=0)#changing the dimensions of the image

        pred=np.argmax(model.predict(x), axis=1)
        print("prediction",pred)#printing the prediction
        index=['APPLES','BANANA','ORANGE','PINEAPPLE','WATERMELON']

        result=str(index[pred[0]])

        x=result
        print(x)
        result=nutrition(result)
        print(result)

        return render_template("0.html",showcase=(result),showcase1=(x))
```

API Integration:

```
def nutrition(index):


    url = "https://calorieninjas.p.rapidapi.com/v1/nutrition"

    querystring = {"query":index}

    headers = {
        'x-rapidapi-key': "5d797ab107mshe668f26bd044e64p1ffd34jsnf47bfa9a8ee4",
        'x-rapidapi-host': "calorieninjas.p.rapidapi.com"
        }

    response = requests.request("GET", url, headers=headers, params=querystring)

    print(response.text)
    return response.json()['items']
```

Finally, Run the application

This is used to run the application in a localhost. The local host runs on port number 5000.(We can give different port numbers)

```
if __name__ == "__main__":
    # running the app
     app.run(debug=False)
```