Development Phase

Delivery of Sprint 1

Date	11 November 2022
Team ID	PNT2022TMID36413
Project Name	AI-poweredNutritionAnalyserforFitnessEnthusiasts65GP

Building web frameworks, local deployment and test local deployment:

app.py

app.py

```
import requests
from flask import Flask, render_template, request
import numpy as np
from tensorflow.keras.models import load_model
from tensorflow.keras.preprocessing import image
import os

app = Flask(__name__)
model = load_model('nutrition.h5')


@app.route('/')
@app.route('/home.html')
def home():
    return render_template('home.html')


@app.route('/about-us.html')
def about():
    return render_template('about-us.html')

```

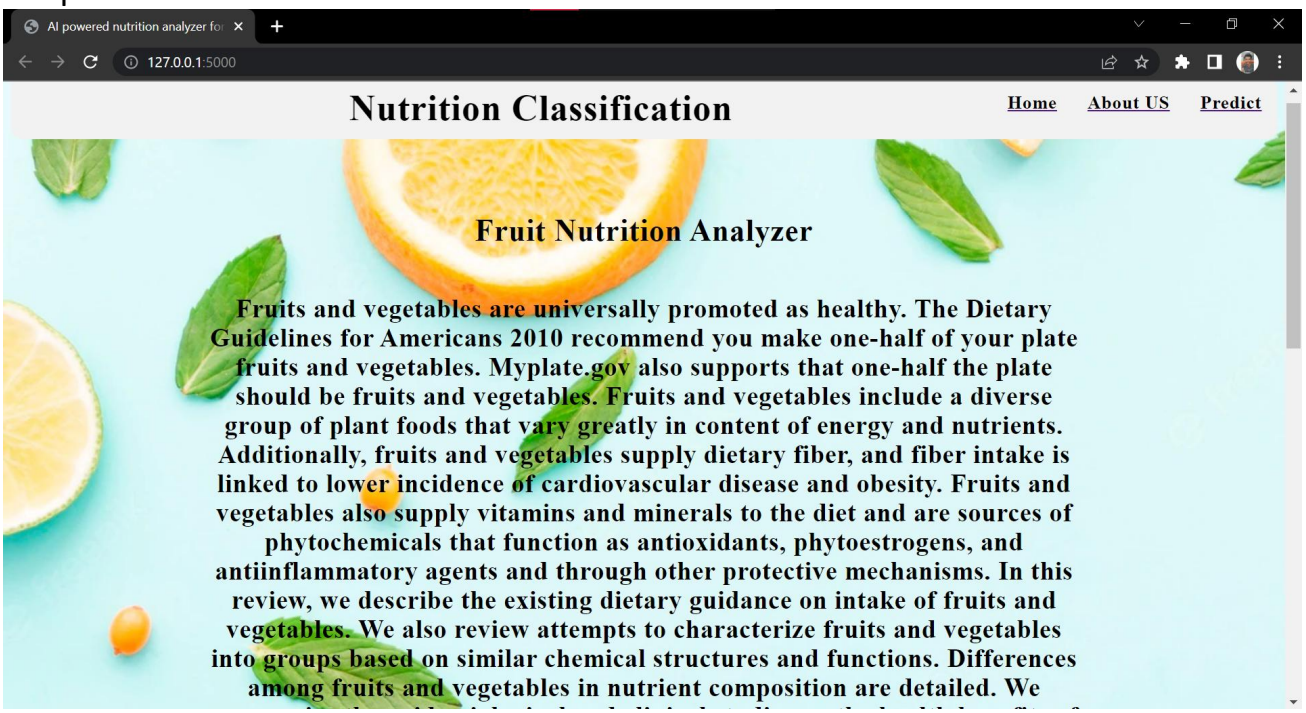
```python
@app.route('/classify.html', methods=['GET', 'POST'])
def predict():
    if request.method == 'POST':

        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 fold
        f.save(filepath)  # saving the file
        print("got image")

        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)
```

```python
        print(x)
        result = nutrition(result)
        print(result)
        return render_template('result.html', result=result, x=x)

    else:
        return render_template('classify.html')


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)
    res = response.json()['items'][0]
    return res


if __name__ == '__main__':
    app.run()
```

Home.html

```
home.html
<html>
<head>
    <title>AI powered nutrition analyzer for fitness enthusiast</title>
 <link rel="stylesheet" href="/static/css/style.css">
</head>
<body>
<div class="top-menus">
    <h1>Nutrition Classification</h1>
    <a href="#" ><p>Home</p></a>
    <a href="about-us.html"><p>About US</p></a>
    <a href="classify.html"><p>Predict</p></a>
</div>
<div id="home" class="container" >
    <h1>Fruit Nutrition Analyzer</h1>
    <br><br>
    <p align="center">Fruits and vegetables are universally promoted as healthy. The Dietary Guidelines for Ame
    <br>
    <p align="center">This application will help you to find the nutritional values of fruits. This is very hel
    <h1 align="center">Demo Video</h1>
    <video autoplay loop muted playsinline class="back-vid">
        <source src="/static/videos/vid1.mp4" type="video/mp4">
    </video>
</div>
</body>
</html>
html › body › div.top-menus › a › p
```

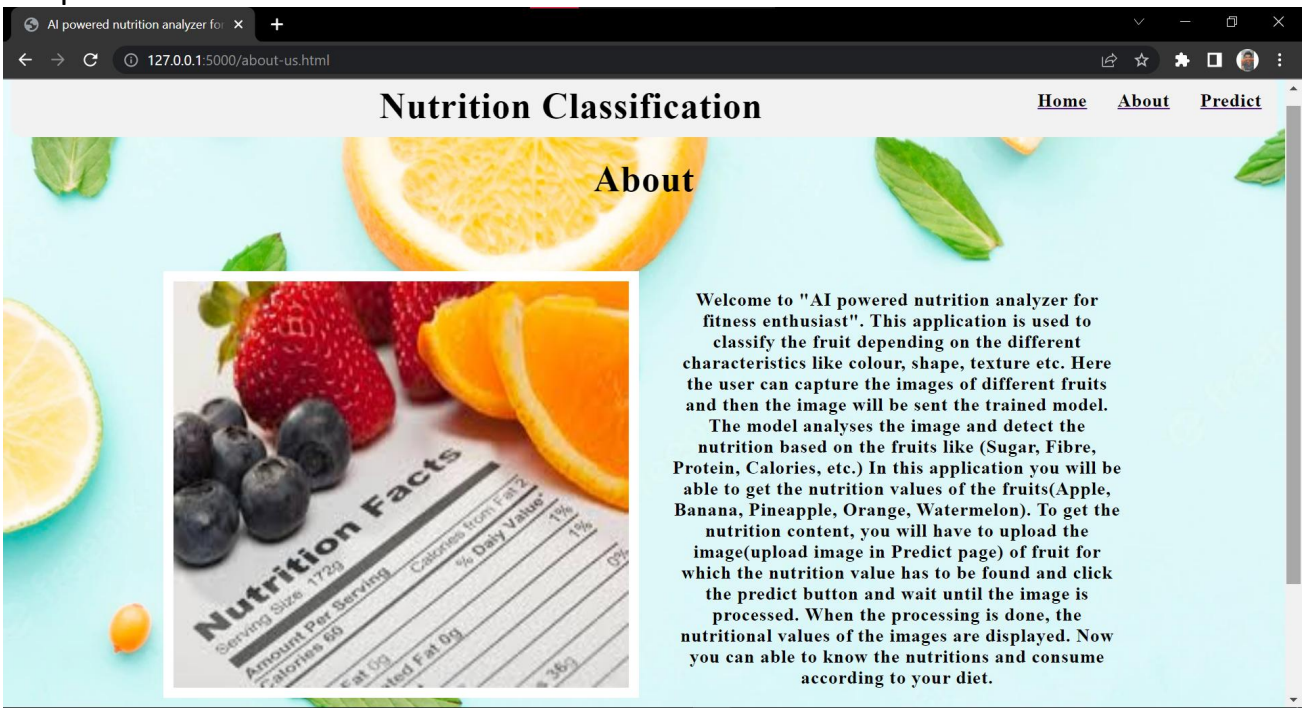
Output



About.html

```
about-us.html
<head>
    C:\Users\Admin\PycharmProjects\Nutrition_Analyzer\templates\about-us.html    siast</title>
    <link rel="stylesheet" href="/static/css/style.css">
</head>
<body >
<div class="top-menus">
    <h1>Nutrition Classification</h1>
    <a href="home.html"><p>Home</p></a>
    <a href="#"><p>About </p></a>
    <a href="classify.html"><p>Predict</p></a>
</div><br>
 <h1>About</h1>
<div id="about" class="container">
    <div class="content">
        <img src="static/images/img.png" alt="bg-img">
    </div>
    <div class="content">
        <p align="center" > Welcome to "AI powered nutrition analyzer for fitness enthusiast". This application
            nutrition values of the fruits(Apple, Banana, Pineapple, Orange, Watermelon). To get the nutrition
            to upload the image(upload image in Predict page) of fruit for which the nutrition value has to be
            the image is processed. When the processing is done, the nutritional values of the images are displ
        </p>
    </div>
</div>
</body>
html › head › link
```

Output



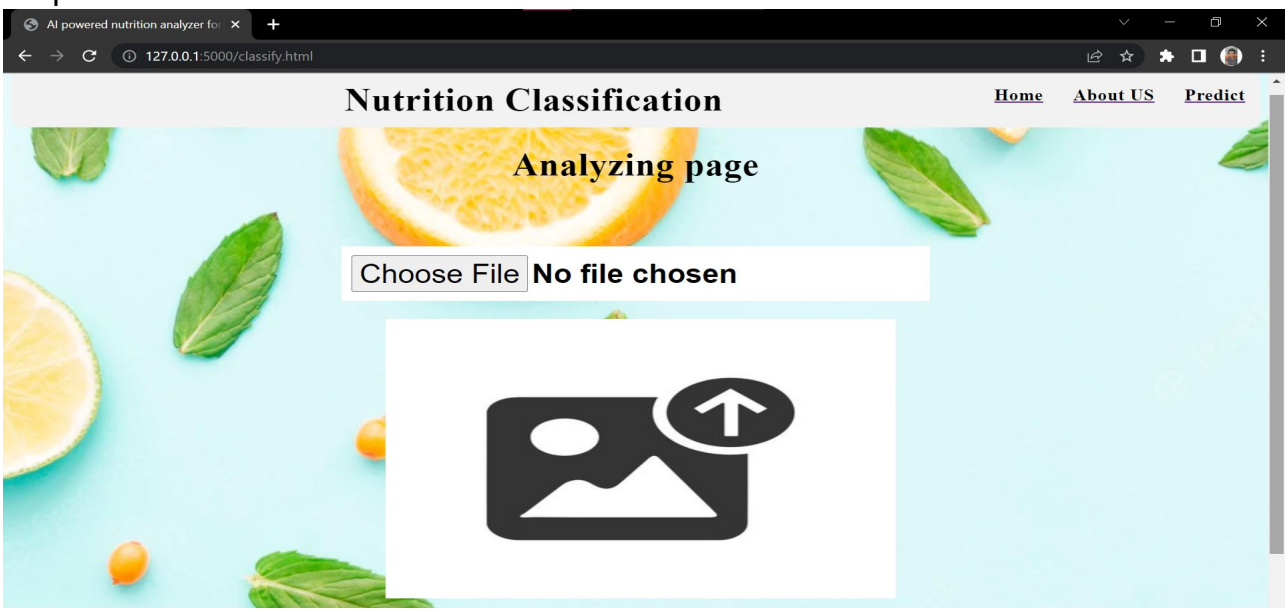
Classify.html

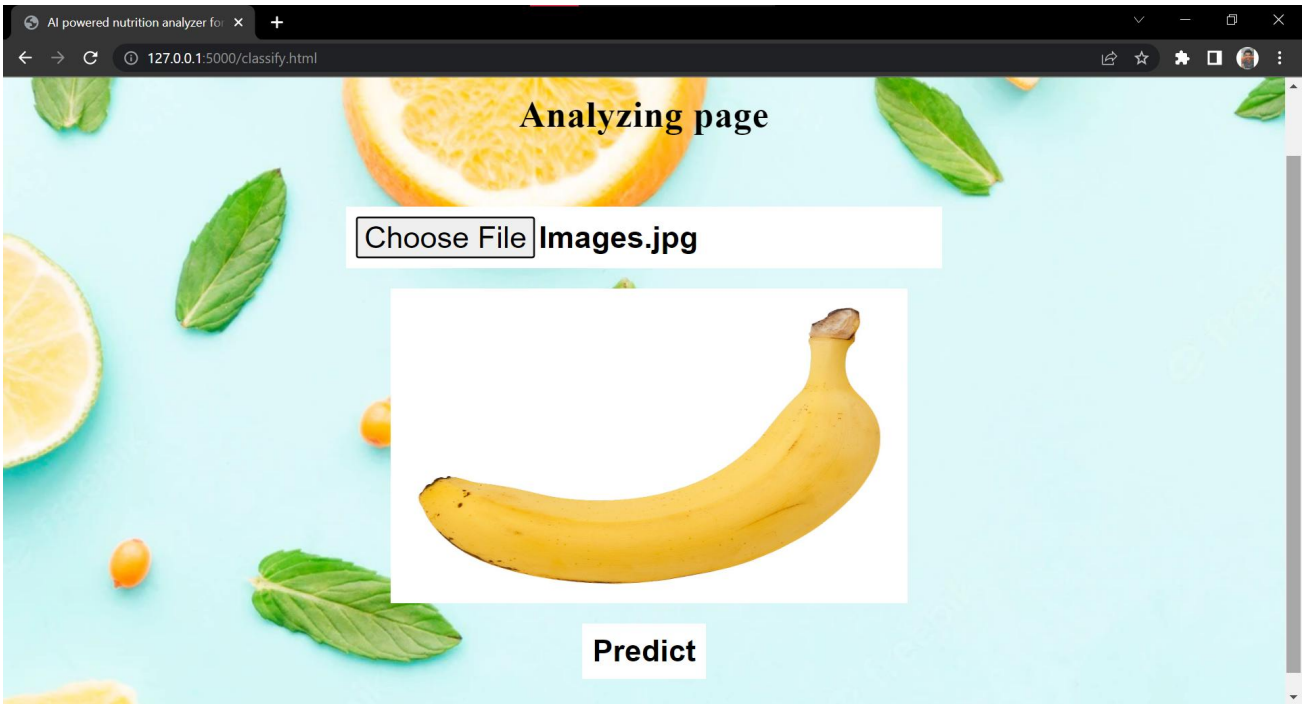
classify.html

```
<html>
<head>
    <title>AI powered nutrition analyzer for fitness enthusiast</title>
<link rel="stylesheet" href="/static/css/style.css">
</head>
<body>
<div class="top-menus">
    <h1>Nutrition Classification</h1>
    <a href="home.html"><p>Home</p></a>
    <a href="about-us.html"><p>About US</p></a>
    <a href="#"><p>Predict</p></a>
</div><br>
<h1>Analyzing page</h1>
<div id="predict" >
    <form action="/classify.html" id="upload-file" method="post" enctype="multipart/form-data">
    <input type="file" name="file" id="file" class="btn1" value="Choose File" accept="image/png, image/jpeg">
    <input type="image" id="img" class="img" src="/static/images/none.jpg">
    <input type="submit" id="btn2" class="btn2" value="Predict">
    </form>
</div>
```

```
<script>
const chooseFile = document.getElementById("file");
const imgPreview = document.getElementById("img");
file.addEventListener("change", function () {
  getImgData();
});
function getImgData() {
  const files = chooseFile.files[0];
  if (files) {
    const fileReader = new FileReader();
    fileReader.readAsDataURL(files);
    fileReader.addEventListener("load", function () {
      console.log(imgPreview.src);
      imgPreview.src =this.result;
    });
  }
}
</script>
</body>
</html>
```

Output


AI powered nutrition analyzer for
127.0.0.1:5000/classify.html
Nutrition Classification
Home
About US
Predict
Analyzing page
Choose File
No file chosen


AI powered nutrition analyzer for
127.0.0.1:5000/classify.html
Analyzing page
Choose File
Images.jpg
Predict

Result.html

result.html

```
</head>
<body>
<div class="top-menus">
    <h1>Nutrition Classification</h1>
    <a href="home.html"><p>Home</p></a>
    <a href="about-us.html"><p>About US</p></a>
    <a href="classify.html"><p>Predict</p></a>
</div>
<center>
    <h1>The classified fruit is {{x}}</h1>
    <table>
        <th>Nutrition</th>
        <th>value</th>
    </table>
    {% for value in result.keys(): %}
    <table>
        <tr>
            <td>{{ value}}  </td>
            <td>{{result[value]}}</td>
                {% endfor %}
        </tr>
     </table>
</center>
</body>
</html>
```

Output