

SOURCE CODE:

home.html

```
<!DOCTYPE html>

<html>

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <meta http-equiv="X-UA-Compatible" content="ie=edge">

  <title>Home</title>

  <link href="https://cdn.bootcss.com/bootstrap/4.0.0/css/bootstrap.min.css"
rel="stylesheet">

  <script
src="https://cdn.bootcss.com/popper.js/1.12.9/umd/popper.min.js"></script>

  <script src="https://cdn.bootcss.com/jquery/3.3.1/jquery.min.js"></script>

  <script
src="https://cdn.bootcss.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>

  <link href="{ { url_for('static', filename='css/main.css') } }" rel="stylesheet">

<style>
body
{
  background-image: url("https://www.livingproofnyc.com/wp-
content/themes/livingproof/assets/img/hero-background.jpg");
  background-size: cover;
}
.bar
{
margin: 0px;
padding:20px;
```

```
background-color:white;
opacity:0.6;
color:black;
font-family:'Roboto',sans-serif;
font-style: italic;
border-radius:20px;
font-size:25px;
}
```

h3

```
{
margin: 0px;
padding:20px;
background-color:#9ACD32;
width: 800px;
opacity:0.6;
color:#000000;
font-family:'Roboto',sans-serif;
font-style: italic;
border-radius:20px;
font-size:25px;
}
```

a

```
{
color:grey;
float:right;
text-decoration:none;
font-style:normal;
```

```
padding-right:20px;
}
a:hover{
background-color:black;
color:white;
border-radius:15px;0
font-size:30px;
padding-left:10px;
}
.div1{
background-color: lightgrey;
width: 500px;
border: 10px solid peach;
padding: 20px;
margin: 20px;
height: 500px;
}
```

```
.header {
position: relative;
top:0;
margin:0px;
z-index: 1;
left: 0px;
```

```
right: 0px;
position: fixed;
background-color: #8B008B ;
color: white;
box-shadow: 0px 8px 4px grey;
overflow: hidden;
padding-left: 20px;
font-family: 'Josefin Sans'
font-size: 2vw;
width: 100%;
height: 8%;
text-align: center;
```

```
}
```

```
.topnav {
```

```
overflow: hidden;
```

```
background-color: #FCAD98;
```

```
}
```

```
.topnav-right a {
```

```
float: left;
```

```
color: black;
```

```
text-align: center;
```

```
padding: 14px 16px;
```

```
text-decoration: none;
```

```
font-size: 22px;
```

```
}
```

```
.topnav-right a:hover {  
  background-color: #FF69B4;  
  color: black;  
}
```

```
.topnav-right a.active {  
  background-color: #DA70D6;  
  color: black;  
}
```

```
.topnav-right {  
  float: right;  
  padding-right: 100px;  
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<!--Brian Tracy-->
```

```
<div class="header">
```

```
<div style="width:50%;float:left;font-size:2vw;text-align:left;color:black;  
padding-top:1%;padding-left:5%;">Nutrtion Image Analysis</div>
```

```
<div class="topnav-right" style="padding-top:0.5%;">
```

```
<a class="active" href="{ { url_for('home') } }">Home</a>
```

```
<a href="{ { url_for('image1') } }">Classify</a>
```

```
</div>
```

</div>

</div>

<h1>

<center>

<h3>Food is essential for human life and has been the concern of many healthcare conventions. Nowadays new dietary assessment and nutrition analysis tools enable more opportunities to help people understand their daily eating habits, exploring nutrition patterns and maintain a healthy diet. Nutritional analysis is the process of determining the nutritional content of food. It is a vital part of analytical chemistry that provides information about the chemical composition, processing, quality control and contamination of food. It ensures compliance with trade and food laws.</h3>

</center>

```
</h1>
</body>
</html>
```

image.html

```
{% extends "imageprediction.html" %} {% block content %}
<div style="float:left">
<br>
<br>
<h5><font color="black" size="3" font-family="sans-serif"><b>Upload image to
classify</b></font></h5><br><br>

<div>
  <form id="upload-file" method="post" enctype="multipart/form-data">
    <label for="imageUpload" class="upload-label">
      Choose...
    </label>
    <input type="file" name="file" id="imageUpload" accept=".png, .jpg, .jpeg">
  </form>
```

```

<center> <div class="image-section" style="display:none;">
    <div class="img-preview">
        <div id="imagePreview">
            </div></center>
        </div>
    <center><div>
        <button type="button" class="btn btn-primary btn-lg " id="btn-
predict">Classify</button>
    </center></div>
</div>

<div class="loader" style="display:none;margin-left: 450px;"></div>

<h3 id="result">

    <span><p style="padding-top: 25px;"><h4>Food Classified is :
<h4><b><u>{{ showcase }} {{ showcase1 }}</p> </span>
    </h3>

</div>
</div>

```

```
{ % endblock % }
```

imageprediction.html

```
<!DOCTYPE html>
```



```
<html>
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <meta http-equiv="X-UA-Compatible" content="ie=edge">
  <title>Predict</title>
  <link href="https://cdn.bootcss.com/bootstrap/4.0.0/css/bootstrap.min.css"
rel="stylesheet">
  <script
src="https://cdn.bootcss.com/popper.js/1.12.9/umd/popper.min.js"></script>
  <script src="https://cdn.bootcss.com/jquery/3.3.1/jquery.min.js"></script>
  <script
src="https://cdn.bootcss.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>
  <link href="{ { url_for('static', filename='css/main.css') } }" rel="stylesheet">
<style>
body
{
  background-image:
url("https://i.pinimg.com/originals/be/21/1a/be211ad5043a8d05757a3538bdd8f45
0.jpg");
  background-size: cover;
}
.bar
{
margin: 0px;
padding:20px;
background-color:white;
opacity:0.6;
color:black;
```

```
font-family:'Roboto',sans-serif;
```

```
font-style: italic;
```

```
border-radius:20px;
```

```
font-size:25px;
```

```
}
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```
a
```

```
{
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color:grey;
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font-style:normal;
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padding-right:20px;
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a:hover{
```

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background-color:black;
```

```
color:white;
```

```
border-radius:15px;0
```

```
font-size:30px;
```

```
padding-left:10px;
```

```
}
```

```
.div1{
```

```
background-color: lightgrey;
```

```
width: 500px;
```

```
border: 10px solid peach;
```

```
padding: 20px;
```

```
margin: 20px;
```

```
height: 500px;
```

```
}
```

```
.header {    position: relative;
              top:0;
              margin:0px;
              z-index: 1;
              left: 0px;
              right: 0px;
              position: fixed;
              background-color: #8B008B ;
              color: white;
              box-shadow: 0px 8px 4px grey;
              overflow: hidden;
              padding-left:20px;
              font-family: 'Josefin Sans';
              font-size: 2vw;
              width: 100%;
              height:8%;
              text-align: center;
            }

            .topnav {
overflow: hidden;
background-color: #FCAD98;
```

```
}
```

```
.topnav-right a {  
  float: left;  
  color: black;  
  text-align: center;  
  padding: 14px 16px;  
  text-decoration: none;  
  font-size: 18px;  
}
```

```
.topnav-right a:hover {  
  background-color: #FF69B4;  
  color: black;  
}
```

```
.topnav-right a.active {  
  background-color: #DA70D6;  
  color: black;  
}
```

```
.topnav-right {  
  float: right;  
  padding-right: 100px;  
}
```

```
</style>
```

```
</head>
```

```
<body>
<div class="header">
<div style="width:50%;float:left;font-size:2vw;text-align:left;color:black;
padding-top:1%;padding-left:5%;">Nutrtion Image Analysis</div>
  <div class="topnav-right" style="padding-top:0.5%;">

    <a href="{ { url_for('home') } }">Home</a>
    <a class="active" href="{ { url_for('image1') } }">Classify</a>
  </div>
</div>
<br>

</div>
<div class="container">
  <center>
<div id="content" style="margin-top:2em">{ % block content % } { % endblock
% }</div></center>
  </div>
</body>

<footer>
  <script src="{ { url_for('static', filename='js/main.js') } }"
type="text/javascript"></script>
</footer>

</html>
```

```

from flask import Flask,render_template,request
# Flask-It is our framework which we are going to use to run/serve our application.
#request-for accessing file which was uploaded by the user on our application.
import os
import numpy as np #used for numerical analysis
from tensorflow.keras.models import load_model#to load our trained model
from tensorflow.keras.preprocessing import image
import requests

app = Flask(__name__,template_folder="templates") # initializing a flask app
# Loading the model
model=load_model('nutrition.h5')
print("Loaded model from disk")

@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")

@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))
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']
```

```
if __name__ == "__main__":
```

```
    # running the app
```

```
    app.run(debug=False)
```