

FINAL DELIVERABLES

FINAL CODE

DATE	18 NOVEMBER 2022
TEAM ID	PMT2022TMID21338
PROJECT CATEGORY	ARTIFICIAL INTELLIGENCE
PROJECT TITLE	AI-POWERES NUTRITION ANALYZER FOR SITNESS ENTHUSIASTS
MAXIMUM MARKS	4 MARKS

Python code:

For the app.py:

```
import numpy as np

import os

from tensorflow.keras.models import load_model

from tensorflow.keras.preprocessing import image

from flask import Flask,render_template,request

app=Flask(__name__)

model=load_model('nutrition.h5')

@app.route('/')

def index():

    return render_template("index.html")

@app.route('/predict',methods=['GET','POST'])

def upload():

    text=""

    if request.method=='POST':

        f=request.files['image']

        basepath=os.path.dirname(__file__)

        filepath=os.path.join(basepath,'uploads',f.filename)

        f.save(filepath)
```

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```
img=image.load_img(filepath,target_size=(64,64))

x=image.img_to_array(img)

x=np.expand_dims(x,axis=0)

pred=np.argmax(model.predict(x),axis=1)

#index=['APPLES', 'BANANA', 'ORANGE', 'PINEAPPLE', 'WATERMELON']
```

```
if pred==0:
```

```
text="""APPLE===>
```

```
*Calories 96
```

```
*Protein - 0.59g
```

```
*Carbohydrate 25g
```

```
*Fats -0.39g
```

```
*Dietary Fiber 4.4g
```

```
*Sugar 14 g
```

```
*Sodium 18mg
```

```
*Potassium 194.7mg"""
```

```
print(text)
```

```
elif pred==1:
```

```
text="""BANANA===>
```

```
*Calories 105
```

```
*Protein 1.39 g
```

```
*carbohydrate 279g
```

```
*Fats 0.49g
```

```
*Dietary fibre 6.14g
```

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*Sodium 1.2 mg

*Potassium 422 mg""

print(text)

elif pred==2:

text=""ORANGE==>

*Calories 105

*Protein 0.9g

*Fats 0.1g

*Carbohydrate 18g

*Dietary fiber 2.39

*Sugar 9g

*Sodium 0mg

*Potassium 173.8mg""

print(text)

elif pred==3:

text=""PINEAPPLE==>

*Calories 452"

*Protein-4.99g

*Fats 11g

*Carbohydrates -199g

*Dietary Fiber 139g

*Sugar 89g

*Sodium 9.1 mg

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```
*Potassium 986.5mg""""  
  
print(text)  
  
elif pred==4:  
  
text="""WATERMELON===>  
  
*Calories 1371  
  
*Protein 26g  
  
*Fats-7g  
  
*Carbohydrate 341g  
  
*Dietary Fiber 18g  
  
*Sugar 280g  
  
*Sodium 45.2 mg  
  
*Potassium 5060.2 mg""""  
  
print(text)  
  
return text  
  
if __name__=='__main__':  
  
app.run(debug=False)
```

HTML CODE:

(index.html)

```
<html lang="en">
```

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```
<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>Nutrition Analyzer</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>

        .bg-dark {

            background-color:    #FA7D7D!important;

        }

        #result {

            color: #000000;

        }

        body

    {

        background-image: url("https://wallpaperaccess.com/full/1690457.jpg");

    }
```

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```
</style>

</head>

<body>

<nav class="navbar navbar-dark bg-dark">

  <div class="container">

    <a class="navbar-brand" href="#">AI-powered Nutrition Analyzer for Fitness Enthusiasts</a>

  </div>

</nav>

<div class="container">

  <div id="content" style="margin-top:2em">

    <div class="container">

      <div class="row">

        <div class="col-sm-6 bd">

          <h3>Nutrition Analyzer: </h3>

          <br>

          <p>Want to know how fruit fits into a healthy diet?It's a valid question! After all, it's absolutely possible to lose weight eating fruit...and GAIN weight eating fruit! A diet rich in vegetables and fruits can lower blood pressure, reduce the risk of heart disease and stroke, prevent some types of cancer, lower risk of eye and digestive problems, and have a positive effect upon blood sugar, which can help keep appetite in checks.</p>

          

        </div>

        <div class="col-sm-6">

          <div>
```

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<h4>Upload Image Here</h4>

<form action = "http://localhost:5000/" id="upload-file" method="post"
enctype="multipart/form-data">

<label for="imageUpload" class="upload-label">

Choose

</label>

<input type="file" name="image" id="imageUpload" accept=".png, .jpg,
.jpeg">

</form>

<div class="image-section" style="display:none;">

<div class="img-preview">

<div id="imagePreview">

</div>

</div>

<div>

<button type="button" class="btn btn-info btn-lg " id="btn-
predict">Analyze!</button>

</div>

</div>

<div class="loader" style="display:none;"></div>

<h3>

</h3>

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```
</div>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
</body>
```

```
<footer>
```

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

```
</footer>
```

```
</html>
```