

FINAL CODE

PYTHON CODE: (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('C:/Users/Malan/Desktop/Flask/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)

        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  
  
*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 fiben 2.39  
  
*Sugar 9g  
  
*Sodium 0mg  
  
*Potassium 173.8mg""  
print(text)
```

```
elif pred==3:
```

```
text="""PINEAPPLE===>  
  
*Calories 452"  
  
*Portein-4.99g  
  
*Fats 11g  
  
*Carbohydrates -199g  
  
*Dietary Fiber 139g  
  
*Sugar 89g  
  
*Sodium 9.1 mg
```

```

        *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">

<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");

}

</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>Fruits are an excellent source of essential vitamins and minerals, and they are high in fiber. Fruits also provide a wide range of health-boosting antioxidants, including flavonoids. Eating a diet high in fruits and vegetables can reduce a person's risk of developing heart disease, cancer, inflammation, and diabetes.</p>

                    

                </div>

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

                    <div>

                        <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>

    <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>

    <span id="result"> </span>

</h3>


</div>

</div>


</div>

</div>

</div>

</div>

</div>

</body>


<footer>

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

</footer>

</html>
```