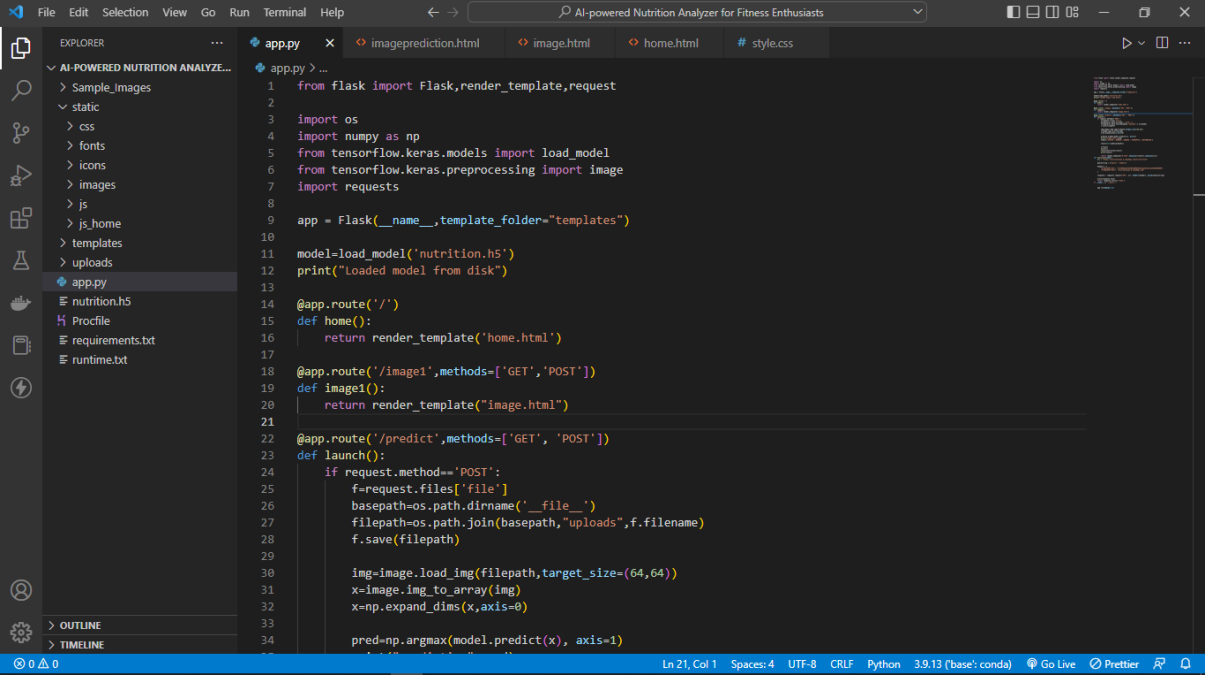


The following is the parent file of the application (app.py). This file manages the imports of all the necessary packages including NumPy, pandas, TensorFlow, and other python packages needed for the development of the AI model.

## Preview of the app.py file :



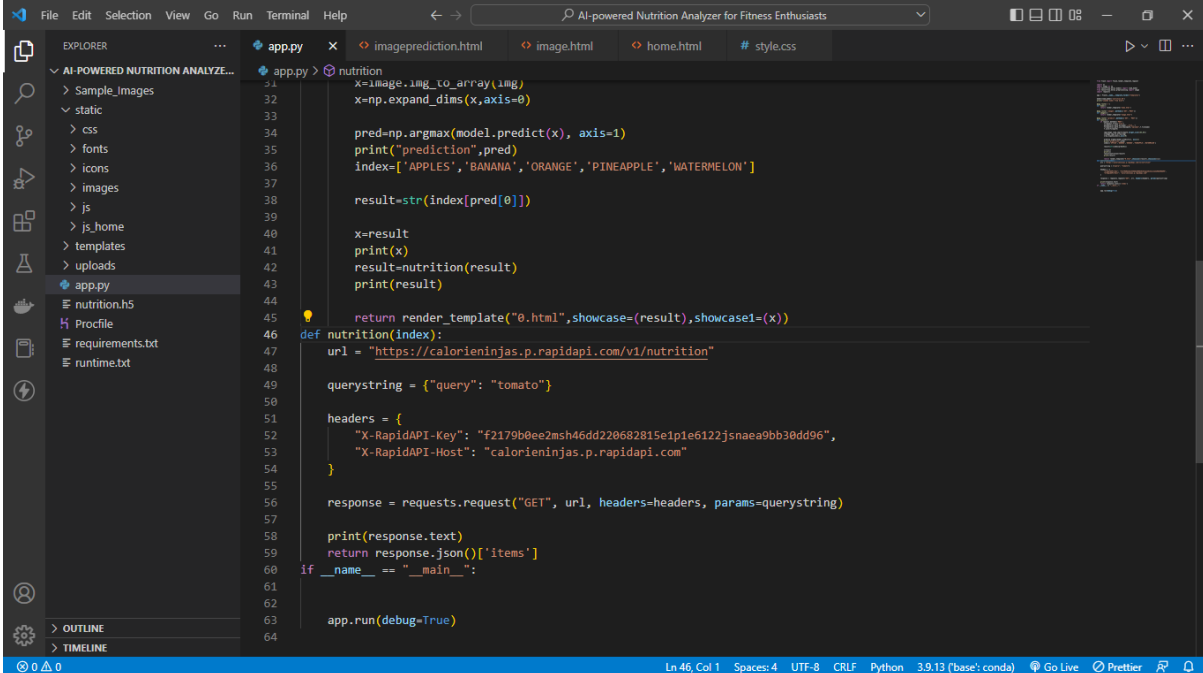
```
1 from flask import Flask, render_template, request
2
3 import os
4 import numpy as np
5 from tensorflow.keras.models import load_model
6 from tensorflow.keras.preprocessing import image
7 import requests
8
9 app = Flask(__name__, template_folder="templates")
10
11 model = load_model('nutrition.h5')
12 print("Loaded model from disk")
13
14 @app.route('/')
15 def home():
16     return render_template('home.html')
17
18 @app.route('/image1', methods=['GET', 'POST'])
19 def image1():
20     return render_template("image.html")
21
22 @app.route('/predict', methods=['GET', 'POST'])
23 def launch():
24     if request.method == 'POST':
25         f = request.files['file']
26         basepath = os.path.dirname('__file__')
27         filepath = os.path.join(basepath, "uploads", f.filename)
28         f.save(filepath)
29
30         img = image.load_img(filepath, target_size=(64, 64))
31         x = image.img_to_array(img)
32         x = np.expand_dims(x, axis=0)
33
34         pred = np.argmax(model.predict(x), axis=1)
```

File name: app.py

Editor: VS Code

Language: Python

The below piece of code is responsible for the nutrition data fetched from the [CalorieNinjas](#) API. The nutrition facts that are displayed on the “Analyze Nutrition” page if fetched from this API using the below piece of code and displayed to the user according to the respective fruit the user has uploaded to the model



```
File Edit Selection View Go Run Terminal Help
AI-powered Nutrition Analyzer for Fitness Enthusiasts
EXPLORER
AI-POWERED NUTRITION ANALYZER...
  Sample_Images
  static
  fonts
  icons
  images
  js
  js_home
  templates
  uploads
  app.py
  nutrition.h5
  Profile
  requirements.txt
  runtime.txt
OUTLINE
TIMELINE
Ln 46, Col 1 Spaces: 4 UTF-8 CRLF Python 3.9.13 (base: conda) Go Live Prettier

app.py > nutrition
31 x=image.img_to_array(img)
32 x=np.expand_dims(x,axis=0)
33
34 pred=np.argmax(model.predict(x), axis=1)
35 print("prediction",pred)
36 index=['APPLES','BANANA','ORANGE','PINEAPPLE','WATERMELON']
37
38 result=str(index[pred[0]])
39
40 x=result
41 print(x)
42 result=nutrition(result)
43 print(result)
44
45 return render_template("0.html",showcase=(result),showcase1=(x))
46 def nutrition(index):
47     url = "https://calorieninjas.p.rapidapi.com/v1/nutrition"
48
49     querystring = {"query": "tomato"}
50
51     headers = {
52         "X-RapidAPI-Key": "f2179b0ee2msh46dd220682815e1p1e6122jsnaea9bb30dd96",
53         "X-RapidAPI-Host": "calorieninjas.p.rapidapi.com"
54     }
55
56     response = requests.request("GET", url, headers=headers, params=querystring)
57
58     print(response.text)
59     return response.json()['items']
60 if __name__ == "__main__":
61
62
63     app.run(debug=True)
64
```