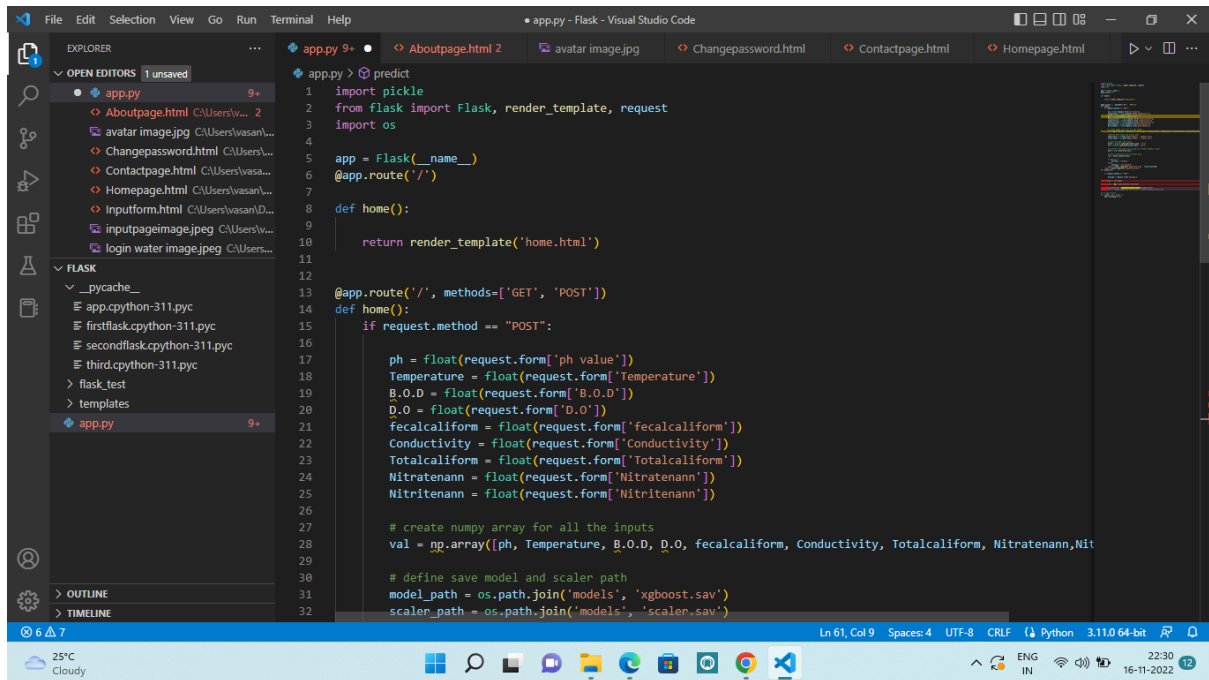


# FLASK APP



The screenshot shows the Visual Studio Code editor with the Flask application code in `app.py`. The code includes imports for `pickle`, `Flask`, `render_template`, `request`, and `os`. It defines a Flask app and a `home` route that renders the `home.html` template. A `predict` route is also defined, which handles POST requests and processes input data for a machine learning model. The input data includes `ph`, `Temperature`, `B.O.D`, `D.O`, `fecalcaliform`, `Conductivity`, `Totalcaliform`, `Nitratennann`, and `Nitritennann`. The code uses `numpy` to create an array for the inputs and defines paths for the model and scaler files.

```
1 import pickle
2 from flask import Flask, render_template, request
3 import os
4
5 app = Flask(__name__)
6 @app.route('/')
7
8 def home():
9
10     return render_template('home.html')
11
12
13 @app.route('/', methods=['GET', 'POST'])
14 def home():
15     if request.method == "POST":
16
17         ph = float(request.form['ph value'])
18         Temperature = float(request.form['Temperature'])
19         B.O.D = float(request.form['B.O.D'])
20         D.O = float(request.form['D.O'])
21         fecalcaliform = float(request.form['fecalcaliform'])
22         Conductivity = float(request.form['Conductivity'])
23         Totalcaliform = float(request.form['Totalcaliform'])
24         Nitratennann = float(request.form['Nitratennann'])
25         Nitritennann = float(request.form['Nitritennann'])
26
27         # create numpy array for all the inputs
28         val = np.array([ph, Temperature, B.O.D, D.O, fecalcaliform, Conductivity, Totalcaliform, Nitratennann, Nitritennann])
29
30         # define save model and scaler path
31         model_path = os.path.join('models', 'xgboost.sav')
32         scaler_path = os.path.join('models', 'scaler.sav')
```

# OUTPUT



# USER INPUT FORM

**WATER PARAMETER VALUES**

Location: VIRUDHUNAGAR

State: TAMILNADU

Temperature: 20

D.O(mg/l): 1.2

pH: 7

Conductivity: 500

B.O.D: 2 pm

Nitratennnn+Nitritennnn(mg/l): 13

Fecal coliform(MPN/100ml): 0.02

Total coliform(MPN/100ml): 0.02

Submit

# TEST CASE-I

*Potable Water.....SAFE TO DRINK :-)*

## TEST CASE -II

Inputform.html

File | C:/Users/vasan/Downloads/IBM%20Project%20frontend%20(2)/IBM%20Project%20frontend/Inputform.html

### WATER PARAMETER VALUES

Location: VIRUDHUNAGAR

State: TAMILNADU

Temperature: 70

D.O(mg/l): 2.5

pH: 12

Conductivity: 700

B.O.D: 4 µm

Nitratennnn+Nitritennnn(mg/l): 35

Fecal coliform(MPN/100ml): 7.5

Total coliform(MPN/100ml): 7.5

Submit

25°C Cloudy

23:27 16-11-2022

## OUTPUT

