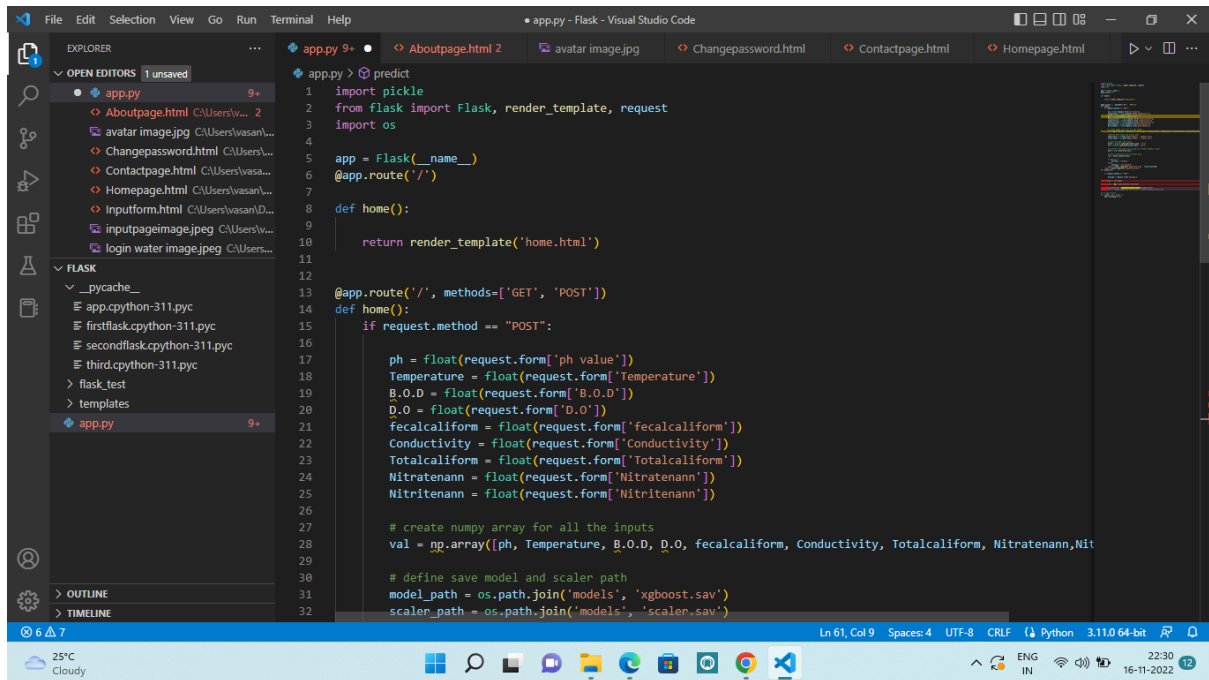


FLASK APP



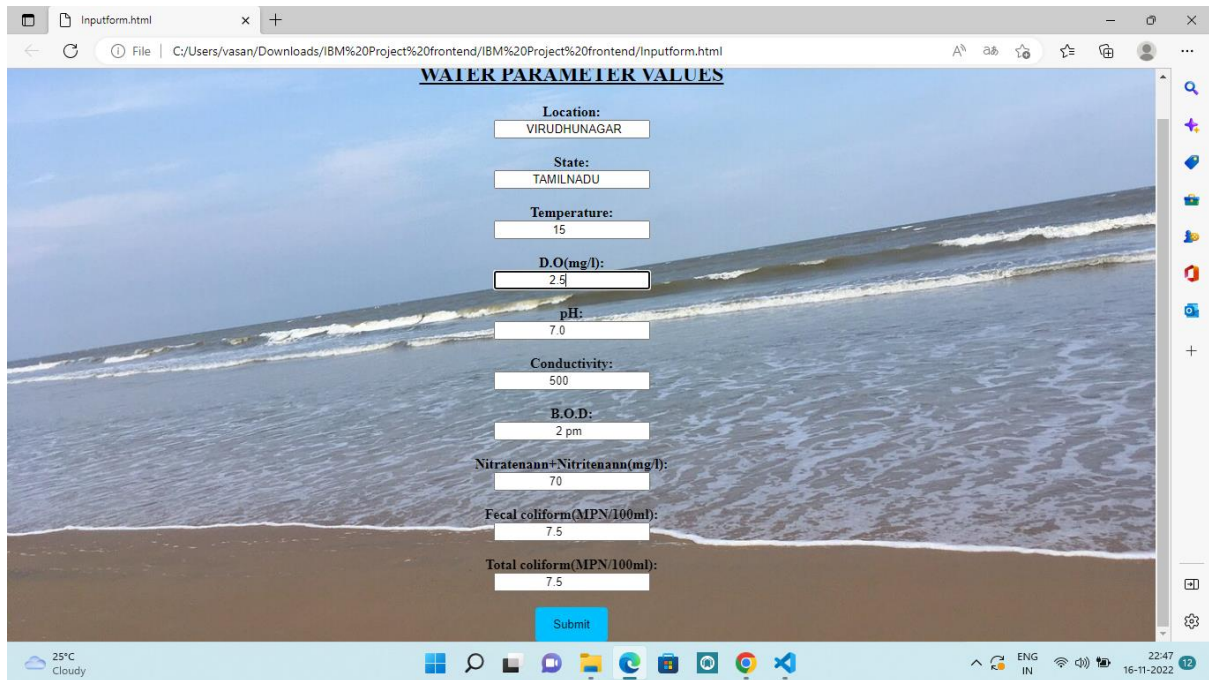
The screenshot shows the Visual Studio Code editor with the Flask application code in `app.py`. The code includes imports for `pickle`, `Flask`, `render_template`, and `request`. It defines a Flask app and a `home` route. The `home` route uses `render_template` to display `home.html`. A `POST` method is also defined for the `home` route, which processes form data and saves the model and scaler paths.

```
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: 15

D.O(mg/l): 2.5

pH: 7.0

Conductivity: 500

B.O.D: 2 pm

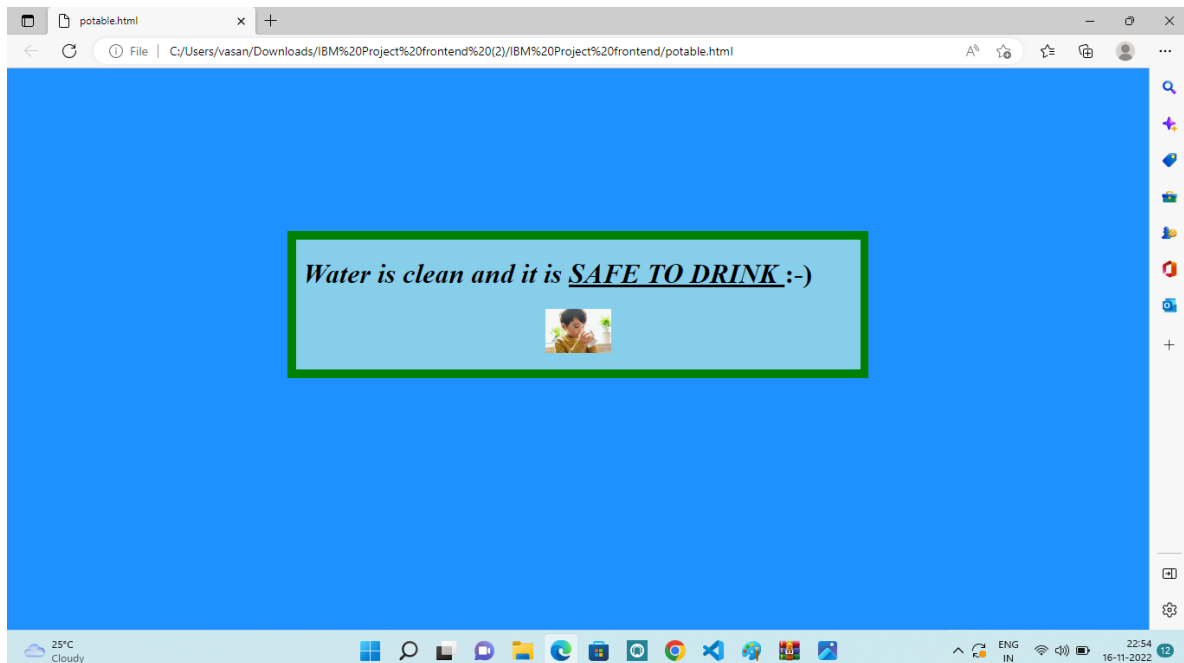
Nitrate+Nitrite(mg/l): 70

Fecal coliform(MPN/100ml): 7.5


Total coliform(MPN/100ml): 7.5

Submit

TEST CASE -I



*Water is clean and it is **SAFE TO DRINK** :-)*



TEST CASE -II

