

PYTHON INTERN ASSIGNMENT

1.FILE STRUCTURE:

project_folder/

└─ app.py

└─ user_database.db

2.app.py:

```
from flask import Flask, request, jsonify
import requests
import sqlite3

app = Flask(__name__)

DATABASE = 'user_database.db'

def get_db():
    conn = sqlite3.connect(DATABASE)
    conn.row_factory = sqlite3.Row
    return conn

@app.route('/api/users', methods=['GET'])
def search_users():
    first_name = request.args.get('first_name')

    conn = get_db()
    cursor = conn.cursor()

    cursor.execute('''
        SELECT * FROM users WHERE first_name LIKE ?
    ''', (f'{first_name}%',))
    matching_users = cursor.fetchall()

    if matching_users:
        return jsonify([dict(user) for user in matching_users])

    response =
requests.get(f'https://dummyjson.com/users/search?q={first_name}')

    try:
```

```

        external_users = response.json()
        if isinstance(external_users, list):
            for user in external_users:
                cursor.execute('''
                    INSERT INTO users (first_name, last_name, age, gender,
email, phone, birth_date)
                    VALUES (?, ?, ?, ?, ?, ?, ?)
                ''', (
                    user.get('first_name', ''), user.get('last_name', ''),
user.get('age', None),
                    user.get('gender', ''), user.get('email', ''),
user.get('phone', ''), user.get('birth_date', '')
                ))
                conn.commit()
            else:
                return "Invalid JSON format from the external API", 500

        except Exception as e:
            return f"Error: {e}", 500

        return jsonify(external_users)

if __name__ == '__main__':
    app.run(debug=True)

```

3.Run the Application:

Open a terminal or command prompt,navigate to the project folder,and run the following command

Python app.py

4.Access the API:

Open web browser

http://127.0.0.1:5000/api/users?first_name=will

Replace 'will' with the desired first name to search for users.

5.Output:

Browser window showing a REST client interface. The address bar displays the URL: `127.0.0.1:5000/api/users?first_name=will`. The response body shows a JSON array of two user objects.

```
1 [
2   {
3     "age": 30,
4     "birth_date": "8th may 1994",
5     "email": "will@gmail.com",
6     "first_name": "will",
7     "gender": "male",
8     "id": 2,
9     "last_name": "smith",
10    "phone": "6789854564"
11  },
12  {
13    "age": 31,
14    "birth_date": "8th april 1995",
15    "email": "willan@gmail.com",
16    "first_name": "willan",
17    "gender": "male",
18    "id": 3,
19    "last_name": "smith",
20    "phone": "6789854564"
21  }
22 ]
```

The Windows taskbar at the bottom shows the system clock as 20:33 on 11-08-2023, with a temperature of 28°C and the word "Cloudy".