

Mastering Python

الدرس # 17



بناء المواقع الالكترونية
والربط مع قواعد البيانات

By:
Hussam Hourani

V1.0 -DEC 2019

Flask and sqlite3

- Connecting Flask and sqlite3 with Employee Information

DB

index25.html

add25.html

success25.html

localhost:5000/

Hi, welcome to the website

[Add Employee](#)

[List Records](#)

[Delete Record](#)

localhost:5000/add

Employee Information

Name

Email

Address

localhost:5000/savedetails

Hi Admin, Employee successfully Added

[View Employees](#)

localhost:5000/view

Employee Information

ID	Name	Email	Address
2	Khalid	Khalid@gmail.com	Jordan
3	Hadeel	Hadeel@gmil.com	USA
4	Shaker	Shaker1@hotmail.com	UK
5	Abeer	Abeer@gmail.com	Karak

[Go back to home page](#)

view25.html

delete25.html

localhost:5000/delete

Remove Employee from the list

Employee Id

Delete_record25.html

localhost:5000/deleterecord

record successfully deleted

[View List](#)

DB – Create DB

EmployeeDB.py

```
1 import sqlite3
2
3 con = sqlite3.connect("employee.db")
4 print("Database opened successfully")
5
6 con.execute("create table Employees (id INTEGER PRIMARY KEY AUTOINCREMENT, \
7                                     name TEXT NOT NULL, email TEXT UNIQUE NOT NULL, \
8                                     address TEXT NOT NULL)")
9
10 print("Table created successfully")
11
12 con.close()
```

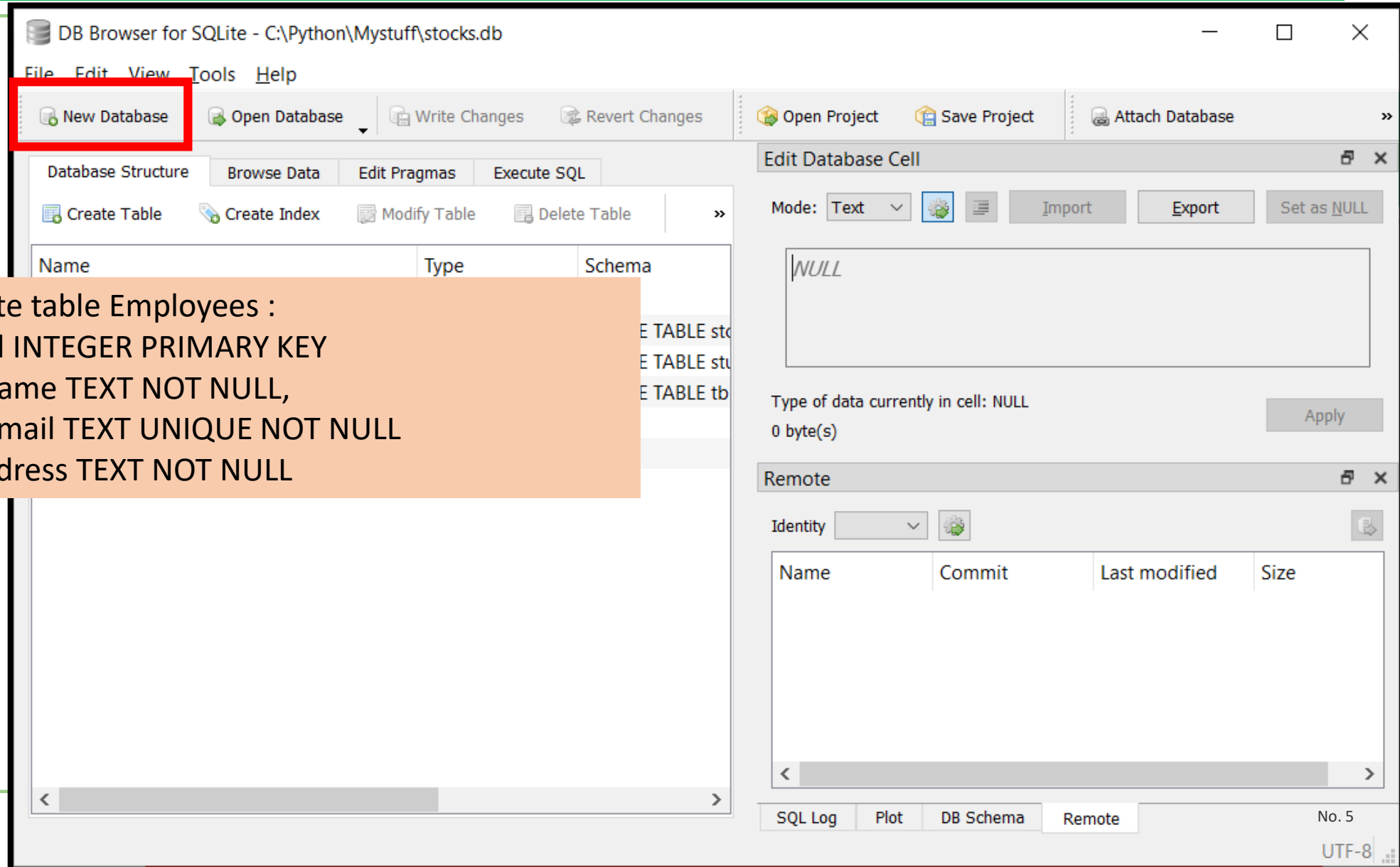
DB – Create DB using SQLite Browser

Employee.db



create table Employees :

- id INTEGER PRIMARY KEY
- name TEXT NOT NULL,
- email TEXT UNIQUE NOT NULL
- adress TEXT NOT NULL



DB – Main Program

Employee25.html

```
1 from flask import *
2 import sqlite3
3
4 app = Flask(__name__)
5
6 @app.route("/")
7 def index():
8     return render_template("index25.html");
9
10 @app.route("/add")
11 def add():
12     return render_template("add25.html")
13
14 @app.route("/savedetails", methods = ["POST", "GET"])
15 def saveDetails():
16     msg = "msg"
17     if request.method == "POST":
18         try:
19             name = request.form["name"]
20             email = request.form["email"]
21             address = request.form["address"]
22             with sqlite3.connect("employee.db") as con:
23                 cur = con.cursor()
24                 cur.execute("INSERT into Employees (name, email, address) values \
25                             (?, ?, ?)", (name, email, address))
26                 con.commit()
27                 msg = "Employee successfully Added"
28         except:
29             con.rollback()
30             msg = "We can not add the employee to the list"
31         finally:
32             return render_template("success25.html", msg = msg)
33             con.close()
```

```
35 @app.route("/view")
36 def view():
37     con = sqlite3.connect("employee.db")
38     con.row_factory = sqlite3.Row
39     cur = con.cursor()
40     cur.execute("select * from Employees")
41     rows = cur.fetchall()
42     return render_template("view25.html", rows = rows)
43
44
45 @app.route("/delete")
46 def delete():
47     return render_template("delete25.html")
48
49 @app.route("/deleterecord", methods = ["POST"])
50 def deleterecord():
51     id = request.form["id"]
52     with sqlite3.connect("employee.db") as con:
53         try:
54             cur = con.cursor()
55             cur.execute("delete from Employees where id = ?", id)
56             msg = "record successfully deleted"
57         except:
58             msg = "can't be deleted"
59         finally:
60             return render_template("delete_record25.html", msg = msg)
61
62 if __name__ == "__main__":
63     app.run(debug = True)
```

DB

index25.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>home</title>
5 </head>
6 <body>
7   <h2>Hi, welcome to the website</h2>
8   <a href="/add">Add Employee</a><br><br>
9   <a href="/view">List Records</a><br><br>
10  <a href="/delete">Delete Record</a><br><br>
11 </body>
12 </html>
```

success25.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>save details</title>
5 </head>
6 <body>
7   <h3>Hi Admin, {{msg}}</h3>
8   <a href="/view">View Employees</a>
9 </body>
10 </html>
```

add25.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Add Employee</title>
5 </head>
6 <body>
7   <h2>Employee Information</h2>
8   <form action = "/savedetails" method="post">
9     <table>
10      <tr><td>Name</td><td><input type="text" name="name"></td></tr>
11      <tr><td>Email</td><td><input type="email" name="email"></td></tr>
12      <tr><td>Address</td><td><input type="text" name="address"></td></tr>
13      <tr><td><input type="submit" value="Submit"></td></tr>
14    </table>
15  </form>
16 </body>
17 </html>
```

view25.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>List</title>
5 </head>
6 <body>
7
8 <h3>Employee Information</h3>
9 <table border=5>
10   <thead>
11     <td>ID</td>
12     <td>Name</td>
13     <td>Email</td>
14     <td>Address</td>
15   </thead>
16
17   {% for row in rows %}
18
19     <tr>
20       <td>{{row["id"]}}</td>
21       <td>{{row["name"]}}</td>
22       <td>{{row["email"]}}</td>
23       <td>{{row["address"]}}</td>
24     </tr>
25
26   {% endfor %}
27 </table>
28 <br><br>
29
30 <a href="/">Go back to home page</a>
31
32 </body>
33 </html>
```

DB

delete25.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>delete record</title>
5 </head>
6 <body>
7   <h3>Remove Employee from the list</h3>
8
9   <form action="/deleterecord" method="post">
10 Employee Id <input type="text" name="id">
11 <input type="submit" value="Submit">
12 </form>
13 </body>
14 </html>
```

Delete_record25.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>delete record</title>
5 </head>
6 <body>
7 <h3>{{msg}}</h3>
8 <a href="/view">View List</a>
9 </body>
10 </html>
```




Master in Software Engineering

Hussam Hourani has over 25 years of Organizations Transformation, VROs, PMO, Large Scale and Enterprise Programs Global Delivery, Leadership, Business Development and Management Consulting. His client experience is wide ranging across many sectors but focuses on Performance Enhancement, Transformation, Enterprise Program Management, Artificial Intelligence and Data Science.