Assignment – 2

Python Programming

Assignment Date	15/11/2022
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Student Roll Number	95071912099

1. Create a User table with Username, email, roll number, password

2. Perform UPDATE and DELETE queries

3. Connect python code to database

4. Create Flask app for a User registration and User login

Solution:

App.py

```
from flask import Flask, render_template, request, redirect
import sqlite3 as sql
import models as dbHandler
app = Flask(_name_)
app.secret_key = 'fasdgfdgdfg'
@app.route('/')
def home():
return render_template('home.html')
@app.route('/adduser')
def new_user():
return render_template('add_user.html')
@app.route('/addrec',methods = ['POST', 'GET'])
def addrec():
if request.method == 'POST':
try:
email = request.form['email']
un = request.form['username']
rn = request.form['rollnumber']
pin = request.form['pin']
```

```
with sql.connect("User_database.db") as con:
cur = con.cursor()
cur.execute("INSERT INTO users (email,username,rollnumber,pin) VALUES
(?,?,?,?)",(email,un,rn,pin) )
con.commit()
msg = "Record successfully added!"
except:
con.rollback()
msg = "error in insert operation"
finally:
return render_template("list.html",msg = msg)
con.close()
@app.route('/list')
def list():
con = sql.connect("User_database.db")
con.row_factory = sql.Row
cur = con.cursor()
cur.execute("select * from users")
users = cur.fetchall()
return render_template("list.html", users = users)
if __name__== '_main_':
app.run(debug = True)
@app.route("/delete")
def delete():
return render_template("delete.html")
@app.route('/deleterecord',methods = ["POST"])
def deleterecord():
un = request.form['username']
with sql.connect("User_database.db") as con:
try:
cur = con.cursor()
```

```
cur.execute("DELETE FROM users WHERE username = ?",[un])
con.commit()
msg = "Record successfully deleted"
except:
msg = "can't be deleted"
finally:
return render_template("home1.html",msg = msg)
if __name__== '_main_':
app.run(debug = True)
@app.route('/deldb', methods = ["POST"])
def deldb():
con = sql.connect('User_database.db')
cur =  con.cursor()
cur.execute('DELETE FROM users;')
con.commit()
con.close()
msg = 'All the data has been deleted'
return render_template("home1.html",msg = msg)
@app.route("/log")
def log():
return render_template("login.html")
@app.route('/login', methods =['GET', 'POST'])
def login():
un = request.form['username']
if request.method=='POST':
users = dbHandler.retrieveUsers()
msg = 'Logged in successfully!'
return render_template('welcome.html', users=un, msg=msg)
else:
msg = 'You are not registered, would you like to be registered'
return render_template('home1.html', msg=msg)
```

```
if __name__== '__main__':
app.run(debug=False, host='0.0.0.0')
```

Models.py

```
import sqlite3 as sql
def retrieveUsers():
con = sql.connect("User_database.db")
cur = con.cursor()
cur.execute("SELECT username, pin FROM users")
users = cur.fetchone()
con.close()
return users
```

sqlite_db_setup.py

```
import sqlite3
conn = sqlite3.connect('User_database.db')
print("Opened database successfully")
conn.execute('CREATE TABLE users (email TEXT, username TEXT, rollnumber
INTEGER, pin INTEGER)')
print("Table created successfully")
conn.close()
```

Home.html

```
<h1>Welcome to User Database APP</h1><br><br>
<a href="/">HOME</a><br><br>
<a href="/adduser">User Registration</a><br><br>
<a href="/list">List User</a><br><br>
<a href="/log">Log in</a><br><br>
<a href="/delete">Remove a User</a>
```

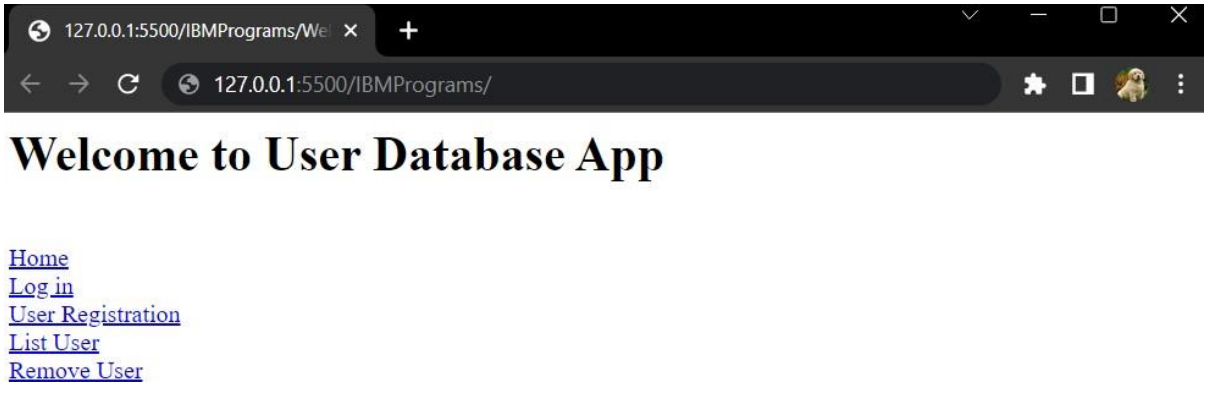
Add_user.html

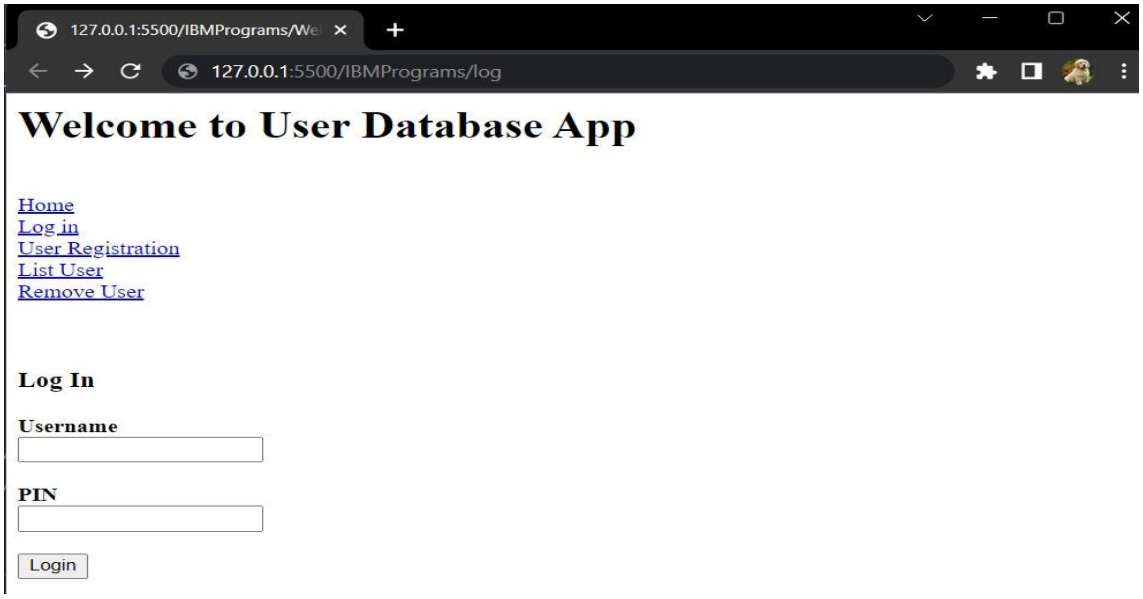
```
<form action = "{{ url_for('addrec') }}" method = "POST">
<h3>User Information</h3>
E-mail<br>
<input type = "email" name = "email" /></br>
Username<br>
<input type = "text" name = "username" /></br>
Rollnumber<br>
<input type = "text" name = "rollnumber" /><br>
PIN<br>
<input type = "password" name = "pin" min="4" max="8" /><br><br>
<input type = "submit" value = "submit" /><p> </p>
<input type = "reset"/>
</form>
```

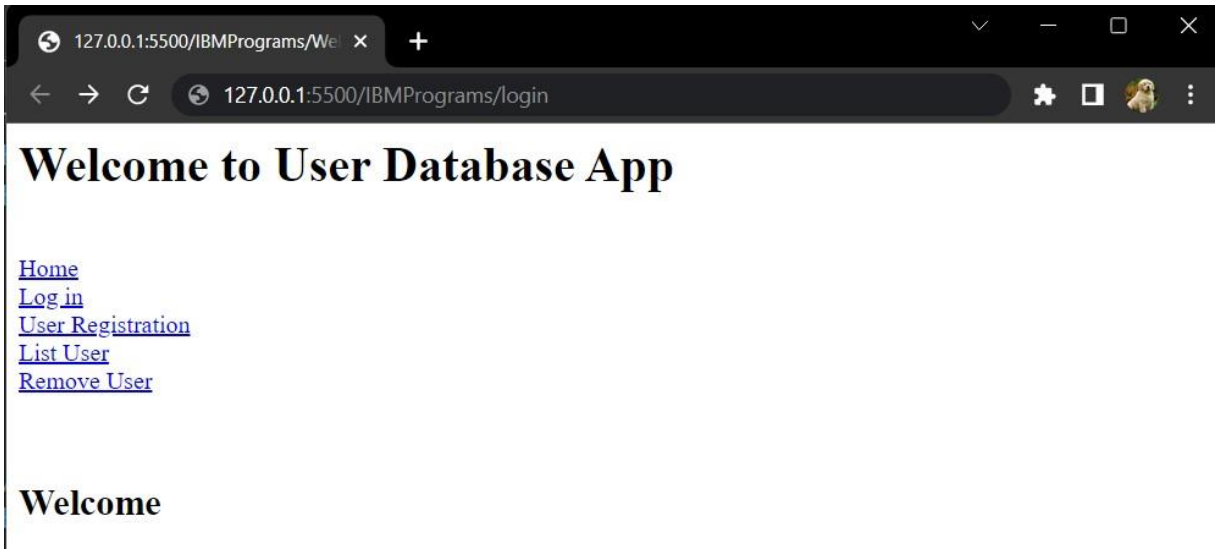
list.html

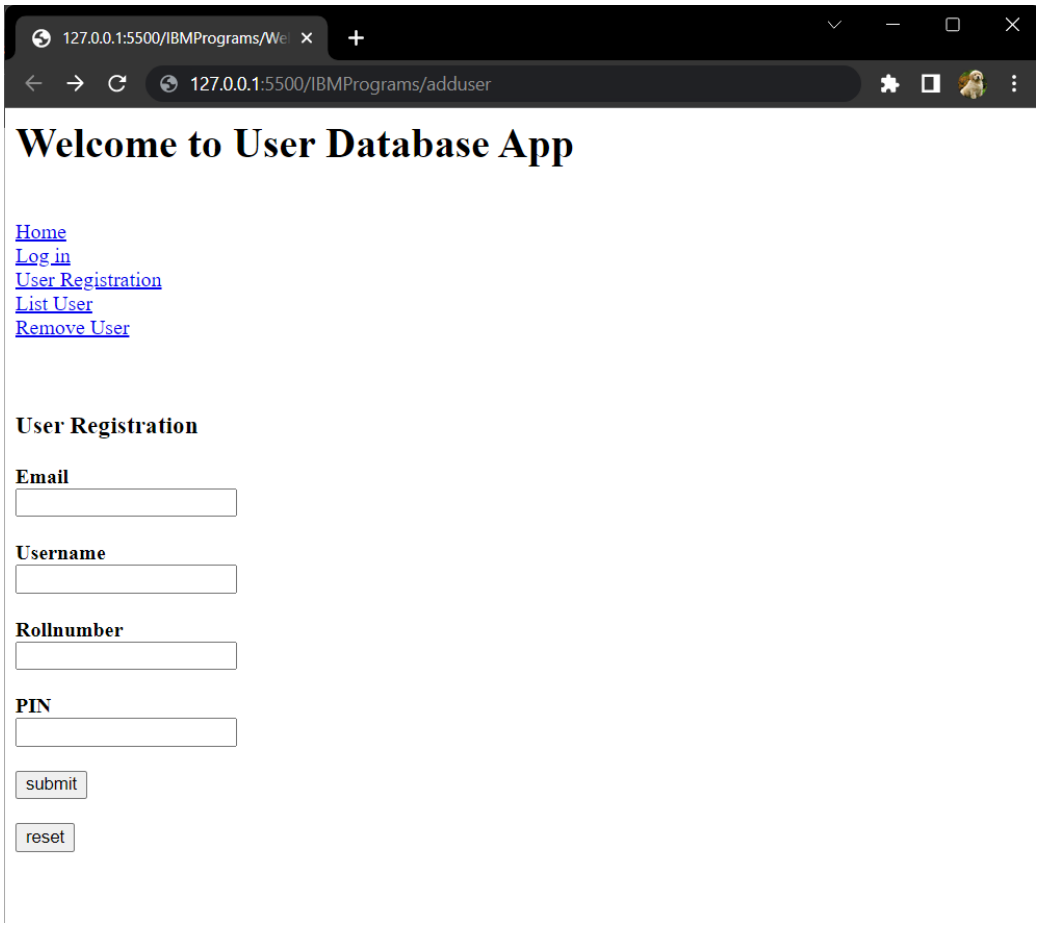
```
<!doctype html>
<html>
<body>
<a href="/">HOME</a><br><br>
<a href="/adduser">Add New Student</a><br><br>
<a href="/list">List Student</a><br><br>
<br><hr>
{{ msg }}
<table border = 1>
<thead>
<td> Email </td>
<td> Username </td>
<td> Roll Number </td>
<td> Pin </td>
</thead>
```

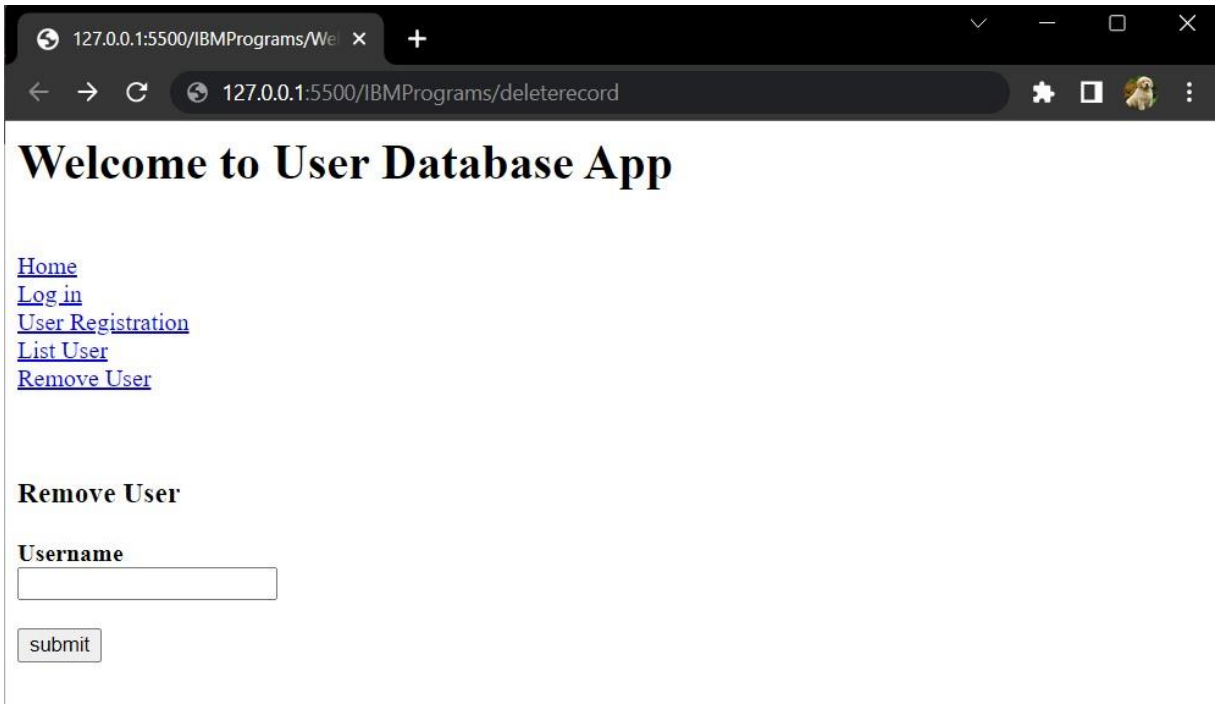
```
{% for row in users %}
<tr>
<td>{{row["email"]}}</td>
<td>{{row["username"]}}</td>
<td> {{ row["rollnumber"]}}</td>
<td>{{row['pin']}}</td>
</tr>
{% endfor %}
</table>
</body>
</html>
```

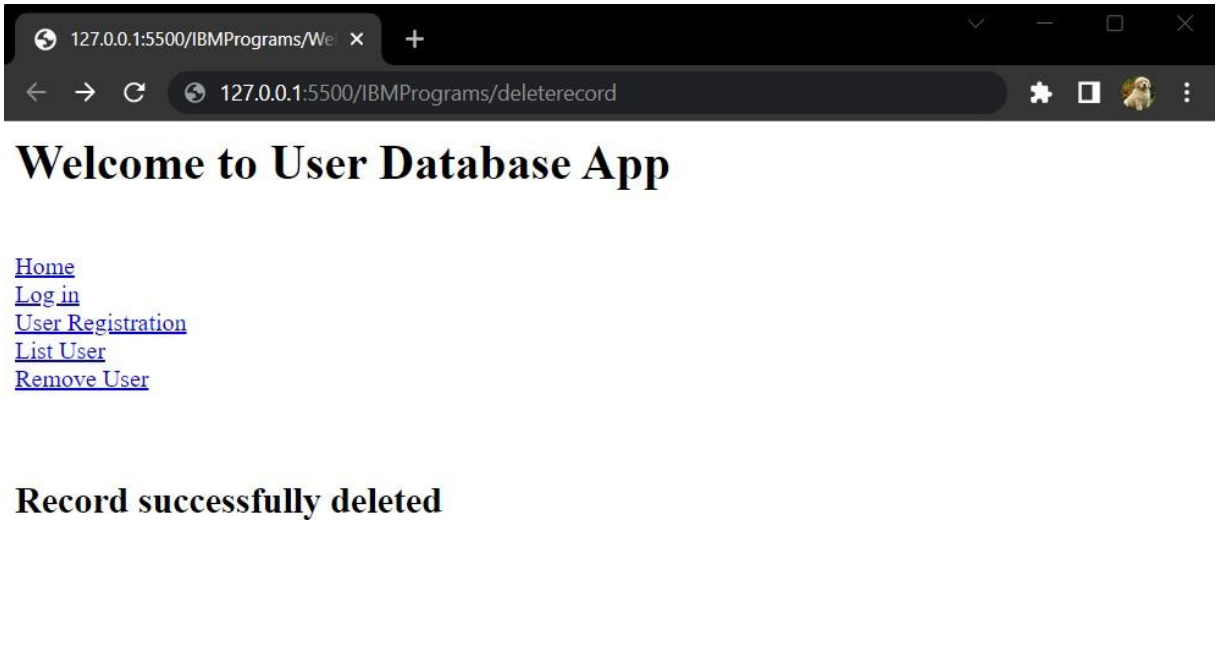





127.0.0.1:5500/IBMPrograms/We
127.0.0.1:5500/IBMPrograms/login
Welcome to User Database App
Home
Log in
User Registration
List User
Remove User
Welcome


127.0.0.1:5500/IBMPrograms/We
127.0.0.1:5500/IBMPrograms/adduser
Welcome to User Database App
Home
Log in
User Registration
List User
Remove User
User Registration
Email
Username
Rollnumber
PIN
submit
reset


127.0.0.1:5500/IBMPrograms/We
127.0.0.1:5500/IBMPrograms/deleterecord
Welcome to User Database App
Home
Log in
User Registration
List User
Remove User
Remove User
Username
submit


127.0.0.1:5500/IBMPrograms/We
127.0.0.1:5500/IBMPrograms/deleterecord
Welcome to User Database App
Home
Log in
User Registration
List User
Remove User
Record successfully deleted