Assignment – 2

Python Programming

Assignment Date	15/11/2022
Student Name	Ramakrishnan P
Student Roll Number	95071912072

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']
```

```python
        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()
```

```python
        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)
```

```python
if __name__ == '__main__':

app.run(debug=False, host='0.0.0.0')
```

Models.py

```python
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

```python
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

```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>
```
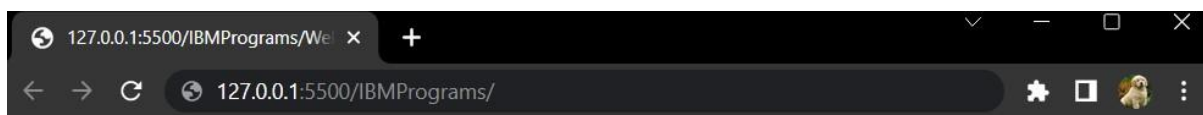
Welcome to User Database App

Welcome

Welcome to User Database App

User Registration

Email

Username

Rollnumber

PIN

submit

reset
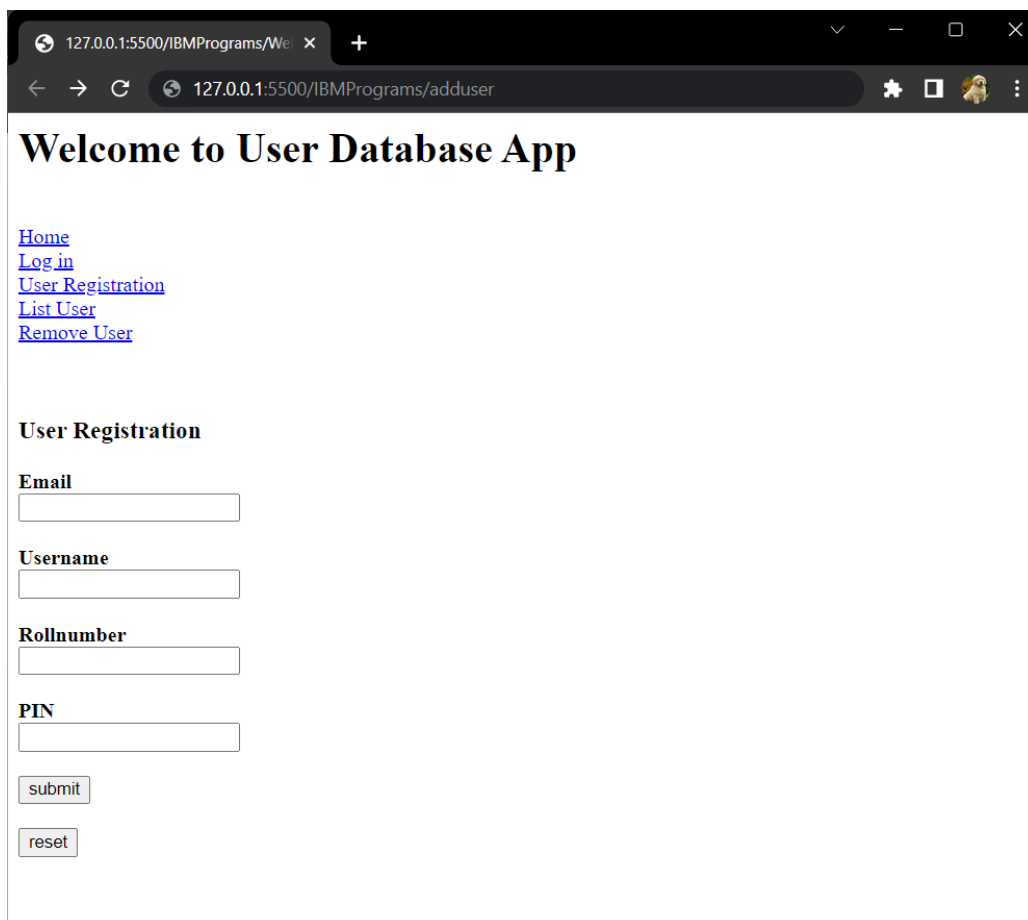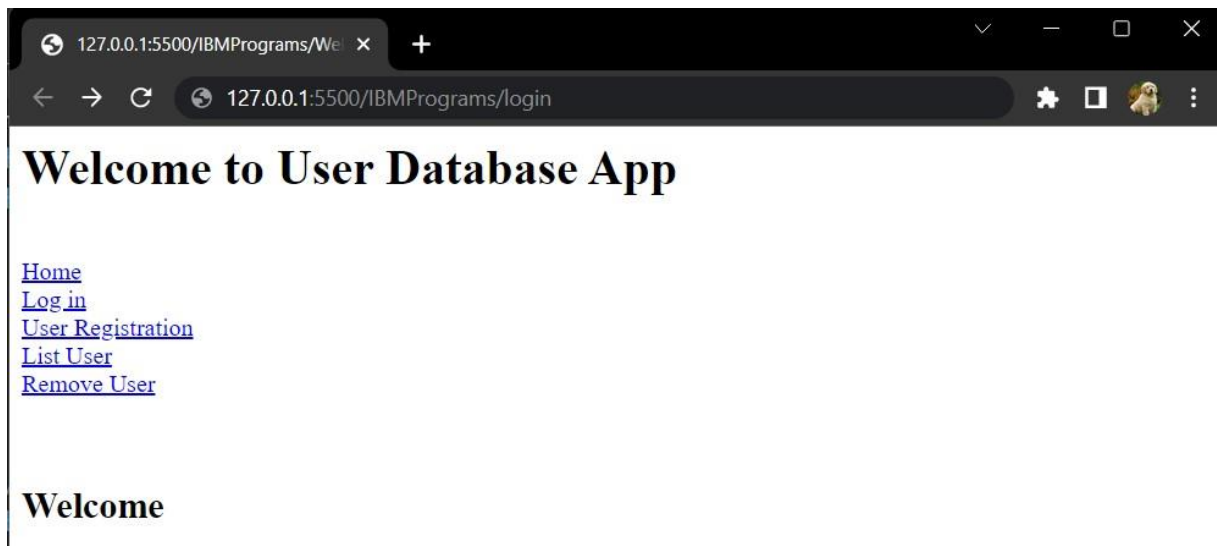
Email	UserName	Roll	PIN
poovizhi@gmail.com	Poovizhi	1923058	2370
poovi@gmail.com	Poovi	1925054	1250
Adith5i@gmail.com	Adithi	1625251	5524

Welcome to User Database App

Home
Log in
User Registration
List User
Remove User

Remove User

Username

[   ]

[submit]

Welcome to User Database App

Home
Log in
User Registration
List User
Remove User

Record successfully deleted

Email	Username	Roll	PIN
Ramakrishnanp699@gmail.com	Ramakrishnan P	95071912072	2370
Sundaramva99@gmail.com	Sundaram VA	95071912099	5524