Assignment -2
Python Programming

Assignment Date	28-09-2022
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Student Roll Number	310619205046

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

```python
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']
```

```python
        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)
```

```python
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

```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

Welcome to User DB APP


```html
<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

```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

```html
<!doctype html>

<html>
  <body>
```

```html
<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>
```
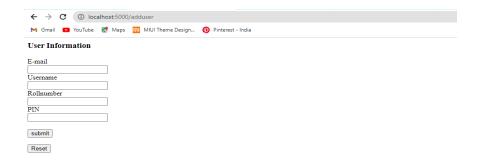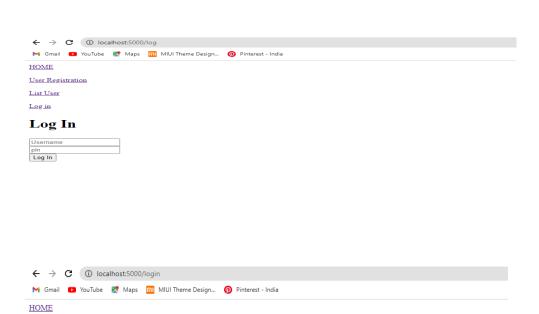

Welcome to User DB APP

HOME

User Registration

List User

Log in

Remove a User

User Information

E-mail

Username

Rollnumber

PIN

submit

Reset

Email	UserName	Roll Number	PIN
kavi.110@gmail.com	Kavinaya	19205046	**1234**
afra1230@gmail.com	Afra	19205004	**1544**
jayasrips@gmail.com	Jayasri	19205041	**1111**
abdulwaseem@gmail.com	Waseem	192050404	**1678**

HOME

User Registration

List User

Log in

Log In

Username

pin

Log In

HOME

User Registration

List User

Log in

Welcome

Remove User

Username [＿＿＿＿＿＿＿] [Submit]

Record successfully deleted

Email	UserName	Roll Number	PIN
kavi.110@gmail.com	Kavinaya	19205046	**1234**
jayasrips@gmail.com	Jayasri	19205041	**1111**
abdulwaseem@gmail.com	Waseem	192050404	**1678**