Assignment -2

Python Programming

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Question-1:

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

```
fromflaskimportFlask,render_template,request,redirect
importsqlite3assqlimport
modelsasdbHandler

app =Flask(name
 _____
 )app.secre t_key
='fasdgfdgdfg'
@app.route('/')
def home():
  returnrender_template('home.html')

@app.route('/adduser')
def new_user():
  returnrender_template('add_user.html')

@app.route('/addrec',methods = ['POST',
'GET'])def addrec(): if request.method
== 'POST':try:
     email=request.form['email']un=r
     equest.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="errorininsertoperation"
finally:
            return render_template("list.html",msg =
            msg)con.close()

    @app.route('/list')
    def list():
      con =
      sql.connect("User_database.db")con.row_factory=sq
      l.Row
cur =
      con.cursor()cur.execute("selec
      t *fromusers")

      users=cur.fetchall()
      return render_template("list.html", users=users)
ifname     == 'main
      __________':app.run(debu
      g = True)


    @app.route("/delete")
    def delete():
       returnrender_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)
ifname     == 'main
      __________':app.run(debu
      g = True)

    @app.route('/deldb', methods = ["POST"])def
    deldb():
      con = sql.connect('User_database.db')cur=co
      n.cursor()cur.execute('DELETEFROM
      users;')con.commit() con.close() msg='Allthe
      data has been deleted' return
      render_template("home1.html",msg =msg)
```

```
@app.route("/log") def
log():
  returnrender_template("login.html")

@app.route('/login', methods =['GET',
'POST'])def login(): un =
request.form['username']ifreq
uest.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'returnrender_template('home1.html',msg=msg)
ifname    == 'main
     __________':app.run(debug=False,host
     ='0.0.0.0')
```

Models.py

```
import sqlite3 as sql

defretrieveUsers():
  con =
  sql.connect("User_database.db")cur
  =con.cursor()
  cur.execute("SELECT username, pin FROM
  users")users =cur.fetchone()
  con.close()ret urnusers
```

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,
rollnumberINTEGER,pinINTEGER)') print("Table created
successfully")conn.close()
```

Home.html

```
<h1>Welcome to User DB APP</h1><br><br>

<ahref="/">HOME</a><br><br>
<ahref="/adduser">UserRegistration</a><br><br>
<ahref="/list">ListUser</a><br><br>
<ahref="/log">Log in</a><br><br>
<ahref="/delete">Remove aUser</a>
```

Add_user.html

```
<form action = "{{ url_for('addrec') }}" method = "POST">

<h3>User
Information</h3>E-
mail<br>
<inputtype="email"name="email"/></br>

Username<br>
<inputtype="text"name="username"/></br>

Rollnumber<br>
<inputtype="text"name ="rollnumber"/><br>

PIN<br>
<inputtype="password"name ="pin" min="4"max="8"
/><br><br>
<inputtype="submit"value ="submit"/><p>           </p>
<inputtype="reset"/>
</form>
```

list.html

```
<!doctype html>

<html>
  <body>

   <ahref="/">HOME</a><br><br>
   <ahref="/adduser">Add NewStudent</a><br><br>
   <ahref="/list">ListStudent</a><br><br
> <br><hr>
    {{ msg}}

     <tableborder =1>
       <thead>
         <td> Email </td>
         <td>Username</td>
         <td>RollNumber</td>
         <td> Pin </td>
       </thead>

       {% for row inusers%}
         <tr>
           <td>{{row["email"]}}</td>
           <td>{{row["username"]}}</td>
           <td>{{row["rollnumber"]}}</td>
           <td>{{row['pin']}}</td>
         </tr>
       {%endfor %}
     </table>

  </body>
</html>
```