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
```

```python
            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)
```

```python
@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

```python
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

```python
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

```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

```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

```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>
```