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("select
  *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>
```