Assignment -2

Python Programming

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']

    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)

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 `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

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

**<h1>Welcome to User DB APP</h1>

**

```
<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

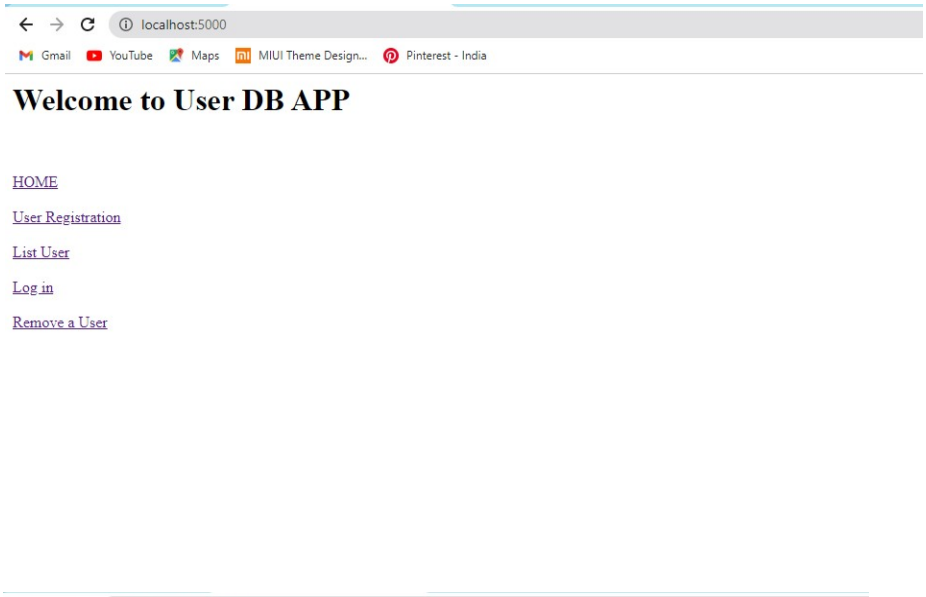
<form action = "{{ url_for('addrec') }}" method = "POST">

```
  <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>
```

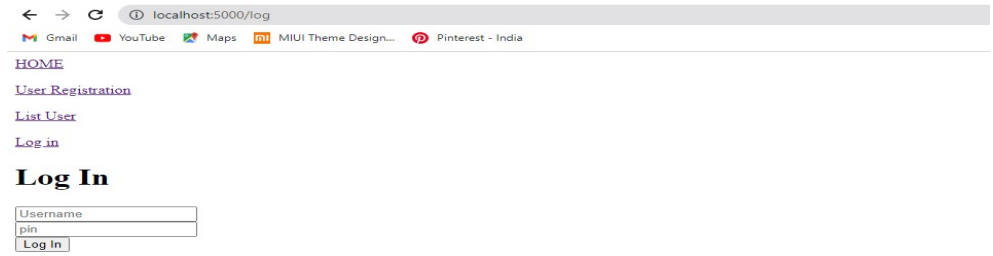
list.html

<!doctype html>

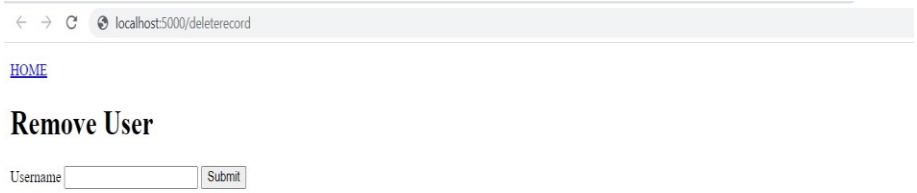
```
<html>
 <body>

  <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>
```


localhost:5000
Gmail
YouTube
Maps
MIUI Theme Design...
Pinterest - India
Welcome to User DB APP
HOME
User Registration
List User
Log in
Remove a User


localhost:5000/adduser
Gmail
YouTube
Maps
MIUI Theme Design...
Pinterest - India
User Information
E-mail
Username
Rollnumber
PIN
submit
Reset


localhost:5000/log
Gmail
YouTube
Maps
MIUI Theme Design...
Pinterest - India
HOME
User Registration
List User
Log in
Log In
Username
pin
Log In


localhost:5000/login
Gmail
YouTube
Maps
MIUI Theme Design...
Pinterest - India
HOME
User Registration
List User
Log in
Welcome


localhost:5000/deleterecord
HOME
Remove User
Username
Submit


localhost:5000/deleterecord
Gmail
YouTube
Maps
MIUI Theme Design...
Pinterest - India
HOME
User Registration
List User
Log in
Record successfully deleted