Assignment -2

Python Programming

Assignment Date	19-10-2022
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Student Roll Number	727819TUCS217

- 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>

</ri>

```
<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></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>
<input type = "text" name = "rollnumber" /><br>
PIN<br/>
<input type = "password" name = "pin" min="4" max="8" /><br>
<input type = "submit" value = "submit" />
<input type = "reset"/>
</form>
```

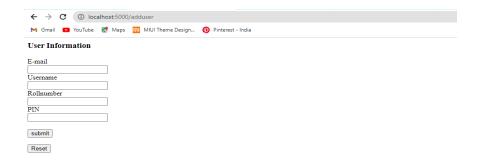
<u>list.html</u>

<!doctype html>

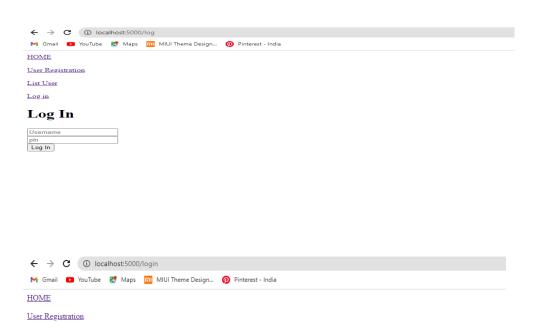
```
<html>
<body>
```

```
<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 }}
  <thead>
    Email
    Username 
     Roll Number 
    Pin
               </thead>
   {% for row in users %}
    {{row["email"]}}
     {{row["username"]}}
     {{ row["rollnumber"]}}
     {{row['pin']}}
    {% endfor %}
  </body>
</html>
← → C ① localhost:5000
M Gmail D YouTube 🔣 Maps 📶 MIUI Theme Design... 🔞 Pinterest - India
Welcome to User DB APP
```

HOME
User Registration
List User
Log in
Remove a User

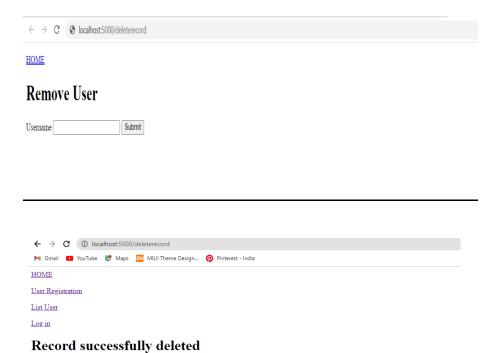


Email	UserName	Roll Number	PIN
19tucs218@skct.edu.in	Shanmuganathan	19TUCS218	1234
19tucs217@skct.edu.in	Surya	19TUCS217	1544
19tucs237@skct.edu.in	Sekar	19TUCS237	1111
19tucs221@skct.edu.in	Siva	19TUCS221	1678



Welcome

<u>List User</u> <u>Log in</u>



Email UserName Roll Number PIN 19tucs218@skct.edu.in shanmuganathan 19TUCS218 1234 19tucs217@skct.edu.in sekar 19TUCS217 1111 19tucs237@skct.edu.in surya 19TUCS237 1678