

Assignment -2
Python
Programming

Assignment Date	02-10-2022
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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

```
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('/delddb', methods = ["POST"])
def delddb():
    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><br><br>

<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>
```