# 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

```python
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:
```

```python
        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'])
```

```python
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

```python
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

```python
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

```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

```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>
```