# Assignment -2

Python
Programming

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| 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('/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><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>
```