Assignment -2
Python Programming

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Question 1.

Create registration page in html with username, email and phone number and by using POST method display it in next html page.

Program:

Registration_form.html

```
<!DOCTYPE html>
<html>
<head>
 <meta charset="UTF-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-
scale=1.0">
 <title>Registration form</title>
</head>
<body>
 <center>
 <form action="{{ url_for("register")}}"
 method="post"> Name : <input type="text"
 name="user"><br><br> Email id : <input
 type="text" name="email"><br><br>
 Phone Number : <input type="text" name="phone"><br><br>
 <input type="submit" value="Submit"><br>
 </form>
 </center>
</body>
</html>
```

app.py:

```
from flask import Flask, request,
render_template app = Flask(__name__)
@app.route('/', methods =["GET", "POST"])
```

```
def register():
 if request.method == "POST":
 name =
 request.form.get("user")
 email
 =request.form.get("email")
 phone =
 request.form.get("phone")
 return "Name is : " + name + ", Email is : " + email + ",
Mobile Number is : "+ phone
 return
render_template("register.html")

 if__name__=='__main__':
 app.debug=True
 app.run()
```

Question 2.

Develop a flask program which should contain atleast 5 packages used from pypi.org

base.html:

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
{% block head %} {% endblock %}
<link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstr
ap.min.css"
rel="stylesheet" integrity="sha384-
iYQeCzEYFbKjA/T2uDLTpkwGzCiq6soy8tYaI1GyVh/UjpbCx/TYkiZhlZB6+fzT"
crossorigin="anonymous">
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.
bundle.min.js "
integrity="sha384-
u1OknCvxWvY5kfmNBILK2hRnQC3Pr17a+RTT6rIHI7NnikvbZlHgTPOOmMi466C8"
crossorigin="anonymous">
</script>
```

```
</head>
<body>
<a href="/">HOME</a>
<a href="/Blog">BLOG</a>
<a href="/Signin">SIGN IN</a>
<a href="/Signup">SIGN UP</a>
<hr><br>
<div class="container">
{% block body %} {% endblock %}
</div>
</body>
</html>
```

blog.html:

```
{% extends 'base.html' %}
{% block head %}
<title>Blog Page</title>
{% endblock %}
{% block body %}
<h1>This is Samle Blog</h1>
<h2><p>Hello, from Mr.X</p></h2>
{% endblock %}
```

index.html:

```
{% extends 'base.html' %}
{% block head %}
<title>Home Page</title>
{% endblock %}
{% block body %}
<h1>Hello everyone,</h1>
<div class="p-5 mb-4 bg-light rounded-3">
<div class="container-fluid py-5">
<h1 class="dispay-5 fw-bold">WIFI TECHNOLOGY<h1>
<p class="col-md-8 fs-4"> Wi-Fi is a wireless networking technology
that allows
```

```
devices such as computers (laptops and desktops), mobile
devices (smart phones

and wearables), and other equipment (printers and video cameras)
to interface with

the Internet.

</p>

</div>

</div>

{% endblock %}
```

signup.html:

```
{% extends 'base.html' %}

{% block head %}

<title>Signup Page</title>

{% endblock %}

{% block body %}

<h1>Signup Page</h1>

<form action="Signup" method="POST">

<label>Name</label><br>

<input type="text" name="name"><br><br>

<label>Email</label><br>

<input type="email" name="email"><br><br>

<label>Phone</label><br>

<input type="text" name="phone"><br><br>

<label>Password</label><br>

<input type="password" name="name"><br><br>

<label>Retype Password</label><br>

<input type="password" name="name"><br><br><br>

<input type="submit" class="btn btn-primary">

</form>

{% endblock %}
```

signin.html:

```
{% extends 'base.html' %}

{% block head %}
```

```
<title>Signin Page</title>
{% endblock %}
{% block body %}
<h1>Signin Page</h1>
<form action="/Signin" method="POST">
<label>Email</label><br>
<input type="email" name="email"><br><br>
<label>password</label><br>
<input type="password" name="name"><br><br>
<input type="submit" class="btn btn-primary">
</form>
{% endblock %}
```

app.py:

```
from flask import Flask,
render_template app = Flask(___
name)
@app.route('/', methods =["GET",
"POST"]) def Index():
 return render_template('index.html')
@app.route('/Blog')
def Blog():
 return render_template('blog.html')
@app.route('/Signup')
def Signup():
 return render_template('signup.html')
@app.route('/Signin')
def Signin():
 return
render_template('signin.html')
if___name_=='__main__':
 app.debug =
 True app.run()
```

Question-3:

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>
```