

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/bootstrap.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-
u10knCvWvY5kfmNBILK2hRnQC3Pr17a+RTT6rIHI7NnikvzbZlHgTPOOmMi466C8"
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="display-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>

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

<label>Email</label>

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

<label>Phone</label>

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

<label>Password</label>

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

<label>Retype Password</label>

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

<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:
```

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        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>
```