Assignment -2

Assignment Date	01-11-2022
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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 a flask app with registration page, login page and welcome page. By default load the registration page once the user enters all the fields store the datain database and navigate to login page authenticate user username and password. If the user is valid show the welcome page

Solution:

App.py

```
ffrom flask import Blueprint, redirect, render_template, request, flash
import ibm_db
import re # regular expression

blue_print = Blueprint("blue_print", "__name__")
conn = ibm_db.connect('DATABASE=bludb;HOSTNAME=b70af05b-76e4-4bca-a1f5-
23dbb4c6a74e.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32716;SECURITY=
SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=rnp46787;PWD=KX5RE6zbCXU439
Bt', '', '')

@blue_print.route('/', methods = ['GET', 'POST'])
def home():
    if request.method == 'POST':
        # getting the data entered by the user
        email = request.form.get('email')
        password = request.form.get('password')

        # validating the inputs
        if len(email) < 10:
            flash("Email must be atleast 10 characters long", category="error")

        elif len(password) < 6:
```

```
            flash("Password must be atleast 6 characters long", category="error")

        else:
            # checking whether the user with the email exists in the database
            sql_check_query = "SELECT * FROM user WHERE email = ?"
            stmt = ibm_db.prepare(conn, sql_check_query)
            ibm_db.bind_param(stmt, 1, email)
            ibm_db.execute(stmt)

            account = ibm_db.fetch_assoc(stmt)
            print(account)

            if account:
                # email id exists
                # checking if the password is correct
                if not account['PASSWORD'] == password:
                    flash('Invalid password', category='error')

                else:
                    # user entered the correct password
                    # redirecting the user to the dashboard
                    return render_template('dashboard.html', account=account)

            else:
                # email id does not exist in the database
                flash('Email invalid... Try Again', category='error')

        return render_template('login.html')

    return render_template('login.html')

@blue_print.route('/register', methods = ['GET', 'POST'])
def register():
    if request.method == 'POST':
        # getting the data entered by the user
        username = request.form.get('username')
        email = request.form.get('email')
        number = request.form.get('number')
        password = request.form.get('password')

        # validating the data entered by the user
        if(len(number) < 12):
            flash("Reg. No must be 12 numbers long", category="error")
```

```
elif not re.match(r'^[a-zA-Z]*$', username):
    flash("Use only alphabets in username", category="error")

elif len(username) < 6:
    flash("Username must be atleast 6 characters long", category="error")

elif len(password) < 6:
    flash("Password must be atleast 6 characters long", category="error")

elif len(email) < 10:
    flash("Email must be atleast 10 characters long", category="error")

else:
    # checking whether the user table contains an entry with the email already
    sql_check_query = "SELECT * FROM user WHERE email = ?"
    stmt = ibm_db.prepare(conn, sql_check_query)
    ibm_db.bind_param(stmt, 1, email)
    ibm_db.execute(stmt)

    account = ibm_db.fetch_assoc(stmt)

    # email id does not exist in the database
    if not account:
        # inserting the data into the database
        sql_insert_query = "INSERT INTO user VALUES (?, ?, ?, ?)"
        stmt = ibm_db.prepare(conn, sql_insert_query)
        ibm_db.bind_param(stmt, 1, username)
        ibm_db.bind_param(stmt, 2, email)
        ibm_db.bind_param(stmt, 3, int(number))
        ibm_db.bind_param(stmt, 4, password)
        ibm_db.execute(stmt)

        # user data has been inserted into the database
        # showing login page to the user
        flash('User created successfully! Please Login', category='success')
        return redirect('/')

    else:
        flash('Email id already exists! Try another one', category='error')

return render_template('register.html')
```

```
    return render_template('register.html')

@blue_print.route('/dashboard')
def dashboard():
    return render_template('dashboard.html')
```

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_s
  etup.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()
```

Base.html

```
<!DOCTYPE html>
<html lang="en">
<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>{% block title %}{% endblock %}</title>

    <style>
        @import
url('https://fonts.googleapis.com/css2?family=Poppins:ital,wght@0,100;0,200;0,400;1,20
0;1,300&display=swap');
    </style>
    <link rel="stylesheet" href="{{ url_for('static', filename='css/style.css') }}"/>
</head>
<body>
    <!-- Nav Bar -->
```

```
    <nav>
        <div>
            <h3>User Registration Assignment</h3>
        </div>
    </nav>

    {% with messages = get_flashed_messages(with_categories=true) %}
        {% if messages %}
            {% for category, message in messages %}
                {% if category == "error" %}
                    <div class="flash-div">
                        <h4>{{ message }}</h4>
                    </div>
                {% else %}
                    <div class="flash-div success">
                        <h4>{{ message }}</h4>
                    </div>
                {% endif %}
            {% endfor %}
        {% endif %}
    {% endwith %}
<div class="main-
                div">
        {% block main %}
        {% endblock %}
    </div>
 </body>
 </html>
```

Dashboard.html

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

 {% block title %}
    Dashboard
 {% endblock %}

 {% block main %}
    <div class="form-main-div">
        <div class="table-div">
            <h2>Your Details</h2>
            <table>
                <th colspan="2">
                    Welcome
                </th>
                <tr>
                    <td>Email</td>
                    <td>{{ account['EMAIL'] }}</td>
                </tr>
```

```
            <tr>
                <td>UserName</td>
                <td>{{ account['USERNAME'] }}</td>
            </tr>
            <tr>
                <td>Register Number</td>
                <td>{{ account['ROLLNO'] }}</td>
            </tr>
            <tr>
                <td>Password</td>
                <td>{{ account['PASSWORD'] }}</td>
            </tr>
        </table>
    </div>
</div>
{% endblock %}
```

Login.html:

```
{% extends 'base.html' %}
{% block title %}
    Login
{% endblock %}

{% block main %}
    <div class="form-main-div">
        <div class="form-div">
            <h3>Login</h3>
            <form method="POST">
                <label>Email</label> <br>
                <input class="inputs" type="text" placeholder="Enter your email" name="email"/>

                <label>Password</label> <br>
                <input class="inputs" type="tex t" placeholder="Enter your password"
name="password"/>

                <button class="submit">Login</button>

                <div>
                    <a href="/register">Don't have an account? Create one</a>
                </div>
            </form>
        </div>
    </div>
{% endblock %}
```

Register.html:

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

{% block title %}
   Sign up
{% endblock %}

{% block main %}
   <div class="form-main-div">
      <div class="form-div">
         <h3>Enter all the details</h3>
         <form method="POST">
            <label>Email</label> <br>
            <input class="inputs" type="text" placeholder="Enter your email" name="email"/>

            <label>Username</label> <br>
            <input class="inputs" type="text" placeholder="Enter your username"
name="username"/>
            <label>Register Number</label> <br>
            <input class="inputs" type="number" placeholder="Enter your email"
name="number"/>

            <label>Password</label> <br>
            <input class="inputs" type="password" placeholder="Enter your password"
name="password"/>

            <input class="submit" type="submit"/>

            <div>
               <a href="/">Already have an account? Login</a>
            </div>
         </form>
      </div>
   </div>
{% endblock %}
```