

## ASSIGNMENT -2

### FLASK APPLICATION INTEGRATION WITH DB2

Assignment Date	26 September 2022
Student Name	Jumana Begum J
Student Roll Number	2019103022
Maximum Marks	2 Marks

#### Question-1:

Create User table with email, username, roll number, password.

```

1 create table user(
2     username varchar(255) NOT NULL,
3     passwd varchar(255) NOT NULL,
4     rollno varchar(255) NOT NULL PRIMARY KEY,
5     email varchar(255) NOT NULL UNIQUE
6 );

```

History

Results

Find history

Script	Date	Status	Runtime
^ ass2-create table	Sep 30, 2022 10:14:00 AM	✓ 1	0.291 s
create table user( username varchar(255) NOT NULL, pas...		✓	0.291 s

Schemas

Tables

New table +

Name

Schema

Properties

USER

GSV17266

...

Total: 1, selected: 0

Table definition

USER

No statistics available.

Name	Data type	Nullable	Length	Scale
USERNAME	VARCHAR	N	255	0
PASSWORD	VARCHAR	N	255	0
ROLLNO	VARCHAR	N	255	0

View data

#### Question-2:

Perform UPDATE, DELETE queries with user table.

INSERT:

```

7
8 insert into user values('samreen','123','2019103022','begum@gmail.com');
9

```

History
Results

Find history

Script	Date	Status	Runtime
^ ass2-create table	Sep 30, 2022 10:21:33 AM	✓ 1	0.012 s
insert into user values('samreen','123','2019103022','...		✓	0.012 s

Export to CSV

USERNAME	PASSWRD	ROLLNO	EMAIL
samreen	123	2019103022	begum@gmail.com

## UPDATE:

```

10 update user set email = 'jumana@gmail.com' where rollno = '2019103022';
11 select * from user;
12

```

History
Results

Find history

Script	Date	Status	Runtime
^ ass2-create table	Sep 30, 2022 10:24:04 AM	✓ 2	0.026 s
update user set email = 'jumana@gmail.com' where rolln...		✓	0.011 s
select * from user		✓	0.015 s

History

Results

Result set 1

Details

Filter table

Total:1

USERNAME	PASSWRD	ROLLNO	EMAIL
samreen	123	2019103022	jumana@gmail.com

## DELETE:

```
13 delete from user where rollno = '2019103022';  
14 select * from user;
```

History			
Script	Date	Status	Runtime
^ ass2-create table	Sep 30, 2022 10:25:28 AM	✓ 2	0.016 s
delete from user where rollno = '2019103022'		✓	0.014 s
select * from user		✓	0.002 s

Result set 1			
Details			
Filter table			
Total:0			
USERNAME	PASSWRD	ROLLNO	EMAIL

## Question-3:

Connect python code to db2.

```
connect.py > ...  
1 import ibm_db  
2  
3 def connection():  
4     try:  
5         conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=1bbf73c5-d84a-4bb0-85b9-ab1a4348f4a4.c3n41cmd0nqnrk39u98g.data  
6             print("connection successful")  
7     except:  
8         print(ibm_db.conn_errormsg())  
9         print("connection failure")  
10  
11 if __name__ == '__main__':  
12     connection()  
13  
14
```

Werkzeug 2.2.2  
PS D:\My documents\Sem 7\IBM project\Assignments\jumana> python connect.py  
connection successful  
PS D:\My documents\Sem 7\IBM project\Assignments\jumana>

## SYNTAX :

```
conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=1bbf73c5-d84a-4bb0-85b9-ab1a4348f4a4.c3n41cmd0nqnrk39u98g.databases.appdomain.cloud;PORT=32286;PROTOCOL=TCPIP;UID=gsv17266;PWD=d8dV1TcTILi50hVG;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;","","")
```

#### Question-4:

Create a flask app with registration page, login page and welcome page. By default, the registration page loads. Once the user enters all the fields store the data in database and navigate to login page to authenticate the user. If user is valid show welcome page

Program:

App.py:

```
1  from flask import Flask,render_template,request,flash
2  import ibm_db
3
4  app = Flask(__name__)
5
6  def connection():
7      try:
8          conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=1bbf73c5-d84a-4bb0-85b9-ab1a4348f4a4.c3n41cmd0nqnrk39u98g.databa
9          print("CONNECTED TO DATABASE")
10         return conn
11     except:
12         print("CONNECTION FAILED")
13
14  @app.route("/",methods=["GET","POST"])
15  def registerPage():
16      if request.method=="POST":
17          conn=connection()
18          try:
19              sql="INSERT INTO USER VALUES('{}','{}','{}','{}')".format(request.form["uname"],request.form["upass"],req
20              ibm_db.exec_immediate(conn,sql)
21              flash("Successfully Registered")
22              return render_template('login.html')
23          except:
24              flash("Account already exists")
25              return render_template('register.html')
26      else:
27          return render_template('register.html')
28
29  @app.route("/login",methods=["GET","POST"])
30  def loginPage():
31      if request.method=="POST":
32          conn=connection()
33          username=request.form["luname"]
34          password=request.form["lupass"]
35          sql="SELECT COUNT(*) FROM USER WHERE USERNAME=? AND PASSWRD=?"
36          stmt=ibm_db.prepare(conn,sql)
37          ibm_db.bind_param(stmt,1,username)
38          ibm_db.bind_param(stmt,2,password)
39          ibm_db.execute(stmt)
40          res=ibm_db.fetch_assoc(stmt)
41          if res['1']==1:
42              return render_template("Welcome.html")
43          else:
44              flash("Wrong Username or Password")
45              return render_template('login.html')
46      else:
47          return render_template('login.html')
48
49
50  if __name__=='__main__':
51      app.config['SECRET_KEY']='super secret key'
52      app.config['SESSION_TYPE']='filesystem'
53      app.run(debug=True)
54
```

## TEMPLATES:

### REGISTER.HTML

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <title>Register Page</title>
5      <link rel="stylesheet" href="../../static/styles.css">
6      <script>
7          function loadLoginPage(){
8              window.location.assign("http://localhost:5000/login");
9          }
10     </script>
11 </head>
12 <body>
13     <div id="Header"><h2>REGISTRATION PORTAL</h2></div>
14     <form action="http://localhost:5000/" method="post">
15         <div id="frm">
16             <label for="ele1">Email ID:</label>
17             <input type="email" name="uemail" id="ele1"><br><br>
18
19             <label for="ele2">User Name:</label>
20             <input type="text" name="uname" id="ele2"><br><br>
21
22             <label for="ele3">Password:</label>
23             <input type="password" name="upass" id="ele3"><br><br>
24
25             <label for="ele4">Roll Number:</label>
26             <input type="text" name="urollno" id="ele4"><br><br>
27
28             <div id="button"><input type="submit" value="Submit"></div>
29             <button type="button" onclick="loadLoginPage();">LOGIN</button>
30         </div>
31
32     </form>
33 </body>
34 </html>
```

### LOGIN.HTML

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <title>Login Page</title>
5      <link rel="stylesheet" href="../../static/styles.css">
6  </head>
7  <body>
8      <div id="Header"><h2>LOGIN PORTAL</h2></div>
9      <form action="http://localhost:5000/login" method="post">
10         <div id="frm">
11             <label for="ele1">User Name:</label>
12             <input type="text" name="luname" id="ele1"><br><br>
13
14             <label for="ele2">Password:</label>
15             <input type="password" name="lupass" id="ele2"><br><br>
16             <div id="button"><input type="submit" value="Submit"></div>
17         </div>
18     </form>
19 </body>
20 </html>
```

WELCOME.HTML

```
1  <!DOCTYPE html>
2  <html>
3      <head>
4          <title>Welcome Page</title>
5      </head>
6      <body>
7          <p>Authentication Successful</p>
8          
9      </body>
10 </html>
```

STATIC FOLDER:

Styles.css:

```
1  html{
2      min-height: 100%;
3      min-width: 100%;
4      background: linear-gradient(to bottom, #33ccff 0%, #66ff99 100%);
5  }
6  #frm{
7      background: rgba(5, 87, 120, 0.24);
8      color: black;
9      max-width: 25%;
10     margin: auto;
11     padding: 50px;
12     border-style: solid;
13     border-width: 2px;
14     border-color: black;
15 }
16 #Header{
17     text-align: center;
18 }
19 #button{
20     display: flex;
21     justify-content: center;
22     align-items: center;
23 }
```

EXECUTION :

REGISTER PAGE :

**REGISTRATION PORTAL**

Email ID:

User Name:

Password:

Roll Number:

ROW INSERTED :

USERNAME	PASSWRD	ROLLNO	EMAIL
jumana	123	2019103022	begumjumana@gmail.com

LOGIN PAGE:

**LOGIN PORTAL**

User Name:

Password:

WELCOME PAGE

