

ASSIGNMENT - 2

Assignment Date	22 September 2022
Student Name	Nandhitha Sree B
Student Roll Number	95071915030
Maximum Marks	2 Marks

QUESTION:

1. Create User table with user with email, username, roll number, password.
2. Perform UPDATE, DELETE Queries with user table
3. Connect python code to db2.
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 data in database and navigate to login page authenticate user username and password. If the user is valid show the welcome page.

1. CREATE USER TABLE WITH USER WITH EMAIL, USERNAME, ROLL NUMBER, PASSWORD.

The screenshot shows the IBM Db2 on Cloud web interface. The 'Tables' tab is selected, and the 'USER' table is highlighted in the list. The 'Table definition' panel on the right shows the table's structure:

Name	Data type	Nullable	Length	Scale
ROLLNUMBER	INTEGER	Y		0
USERNAME	CHAR	Y	32	0
EMAIL	CHAR	Y	64	0
PASSWORD	VARCHAR	Y	32	0

The table has approximately 1 row (32.0 KB) and was updated on 2022-10-26 17:19:49. A 'View data' button is visible at the bottom of the definition panel.

The screenshot shows the IBM Db2 on Cloud web interface. The 'Tables' tab is selected, and the 'USER' table is highlighted. The table is empty, and the message 'There is no data here yet' is displayed. The table structure is shown as follows:

ROLLNUMBER	USERNAME	EMAIL	PASSWORD
------------	----------	-------	----------

The table is located in the schema 'RVK13400.USER'. A 'Back' button is visible in the top right corner of the table view.

File Edit View History Bookmarks Tools Help

IBM Db2 on Cloud

https://bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/cm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-sou

IBM Db2 on Cloud

Data objects Saved objects

Filter objects

RVK13400

SQL

*Untitled - 1

Syntax assistant

Run all

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Nov 1, 2022 3:01:19 PM	2	0.009 s
INSERT INTO USER VALUES (1,'Nandhitha Sree' , 'nandhithasreeb@gmail.com' , 'sree24@');			0.005 s
INSERT INTO USER VALUES (2,'Jeon Jimin' , 'jikook@gmail.com' , 'jikook@');			0.004 s

File Edit View History Bookmarks Tools Help

IBM Db2 on Cloud

https://bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/cm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-sou

IBM Db2 on Cloud

Load Data Load History Tables Views Indexes Aliases MQTs Sequences Application objects

RVK13400.USER

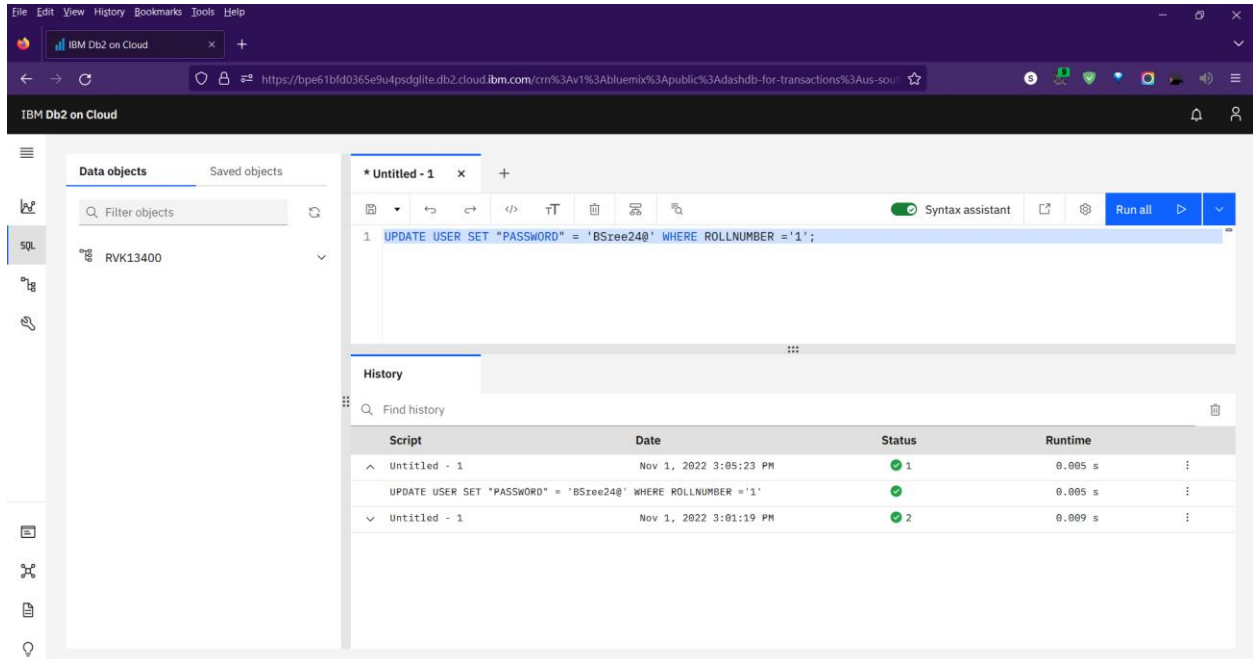
Back

Export to CSV

ROLLNUMBER	USERNAME	EMAIL	PASSWORD
1	Nandhitha Sree	nandhithasreeb@gmail.com	sree24@
2	Jeon Jimin	jikook@gmail.com	jikook@

2. PERFORM UPDATE, DELETE QUERIES WITH USER TABLE.

UPDATE TABLE :

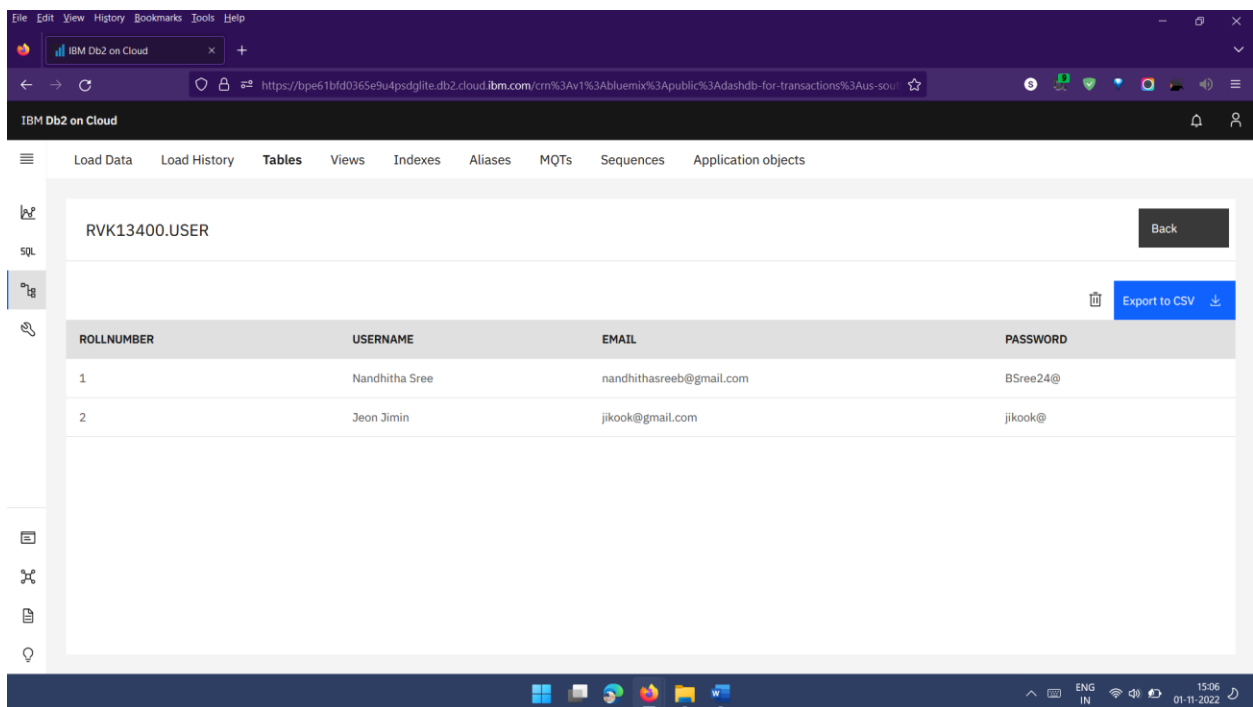


The screenshot shows the IBM Db2 on Cloud SQL editor interface. The left sidebar displays the 'Data objects' tab with a search filter and a list of objects, including 'RVK13400'. The main editor area shows a SQL script with the following query:

```
1 UPDATE USER SET "PASSWORD" = 'BSree24@' WHERE ROLLNUMBER = '1';
```

The 'History' tab at the bottom shows the execution history of the script. It includes columns for Script, Date, Status, and Runtime.

Script	Date	Status	Runtime
Untitled - 1	Nov 1, 2022 3:05:23 PM	✓ 1	0.005 s
UPDATE USER SET "PASSWORD" = 'BSree24@' WHERE ROLLNUMBER = '1'		✓	0.005 s
Untitled - 1	Nov 1, 2022 3:01:19 PM	✓ 2	0.009 s



The screenshot shows the IBM Db2 on Cloud SQL editor interface displaying the contents of the 'RVK13400.USER' table. The table has four columns: ROLLNUMBER, USERNAME, EMAIL, and PASSWORD. The data is as follows:

ROLLNUMBER	USERNAME	EMAIL	PASSWORD
1	Nandhitha Sree	nandhithasreeb@gmail.com	BSree24@
2	Jeon Jimin	jikook@gmail.com	jikook@

Thus, for ROLL NUMBER 1 the PASSWORD has been updated from "Sree24@" to "BSree24@".

DELETE TABLE :

The screenshot shows the IBM Db2 on Cloud SQL editor interface. The left sidebar displays the 'Data objects' tab with a search filter 'RVK13400'. The main editor area shows a SQL script in a file named 'Untitled - 1' with the following statement:

```
1 DELETE FROM USER WHERE ROLLNUMBER ='2';
```

The 'Run all' button is visible in the top right of the editor. Below the editor, the 'History' tab is active, showing a table of executed scripts:

Script	Date	Status	Runtime
Untitled - 1	Nov 1, 2022 3:10:00 PM	✓ 1	0.005 s
DELETE FROM USER WHERE ROLLNUMBER ='2'		✓	0.005 s
Untitled - 1	Nov 1, 2022 3:05:23 PM	✓ 1	0.005 s
Untitled - 1	Nov 1, 2022 3:01:19 PM	✓ 2	0.009 s

The screenshot shows the IBM Db2 on Cloud SQL editor interface after executing the DELETE statement. The left sidebar displays the 'Data objects' tab with a search filter 'RVK13400'. The main editor area shows the result of the query:

RVK13400.USER

Export to CSV

ROLLNUMBER	USERNAME	EMAIL	PASSWORD
1	Nandhitha Sree	nandhithasreeb@gmail.com	BSree24@

Thus ROLLNUMBER 2 has been deleted.

3. CONNECT PYTHON CODE TO DB2.

* NOTE:- Question 4 Contains Question 3 Answer

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 DATA IN DATABASE AND NAVIGATE TO LOGIN PAGE AUTHENTICATE USER USERNAME AND PASSWORD. IF THE USER IS VALID SHOW THE WELCOME PAGE

App.py

```
1 from flask import Flask, render_template, request, redirect, url_for
2 import ibm_db
3
4 dsn_hostname = "b1bc1829-6f45-4cd4-bef4-10cf081900bf.clogj3sdtgtu0lqdc00.databases.appdomain.cloud"
5 dsn_uid = "bpu31478" # e.g. "abc12345"
6 dsn_pwd = "zKP9m4h4hR2ufS8gT" # e.g. "7dRZ3h4t5XN6$00"
7 dsn_driver = "[IBMDB2CL1]"
8 dsn_database = "bludb"
9 dsn_port = "72304" # e.g. "32773"
10 dsn_protocol = "TCP/IP" # e.g. "TCP/IP"
11 dsn_security = "SSL" # i.e. "SSL"
12 dsn_cert = "DigiCertGlobalRootCA.crt"
13 dsn = ("DRIVER={0}"; "DATABASE={1}"; "HOSTNAME={2}"; "PORT={3}"; "PROTOCOL={4}"; "UID={5}"; "PWD={6}"; "SECURITY={7}"; "SSLServerCertificate={8}").format(dsn_driver, dsn_database, dsn_hostname, dsn_port, dsn_protocol, dsn_uid, dsn_pwd, dsn_security, dsn_cert)
14 conn = ibm_db.connect(dsn, "", "")
15 app = Flask(__name__)
16 @app.route("/", methods=['GET', 'POST'])
17 def regpage():
18     if request.method == 'POST':
19         USERNAME = request.form['username']
20         PHONE = request.form['phone']
21         PASSWORD = request.form['password']
22         CPASSWORD = request.form['cpassword']
23         insertQuery = "INSERT INTO USER VALUES ('"+USERNAME+"','"+PHONE+"','"+PASSWORD+"','"+CPASSWORD+"')"
24         insertStmt = ibm_db.prepare(conn, insertQuery)
25         ibm_db.execute(insertStmt)
26         return redirect(url_for('loginpage'))
27     return render_template("register.html")
28 @app.route("/login", methods=['GET', 'POST'])
29 def loginpage():
30     if request.method == 'POST':
31         phone = request.form['phone']
32         password = request.form['password']
33         query = "select COUNT(*) from user where phone='"+phone+"' and password='"+password'"
34         stmts = ibm_db.exec_immediate(conn, query)
35         row = ibm_db.fetch_tuple(stmts)
36         if (row[0] == 1):
37             return redirect(url_for('home_page'))
38         return render_template("login.html")
39
40 def home_page():
41     return render_template("dashboard.html")
42 if __name__ == '__main__':
43     app.run()
```

Register.html

```
1 <head>
2 <meta name="viewport" content="width=device-width, initial-scale=1.0">
3 <link rel="stylesheet" href="/static/style.css">
4 <title>Registration page </title>
5 </head>
6 <body>
7 <div class="container">
8 <div class="title">Registration</div>
9 <div class="content">
10 <form method="post">
11 <div class="user-details">
12 <div class="input-box">
13 <span class="details">Username</span>
14 <input type="text" placeholder="Enter your username" name="username" value="{{request.form['username']}}" required>
15 </div>
16 <div class="input-box">
17 <span class="details">Phone Number</span>
18 <input type="text" placeholder="Enter your number" name="phone" value="{{request.form['phone']}}" required>
19 </div>
20 <div class="input-box">
21 <span class="details">Password</span>
22 <input type="password" placeholder="Enter your password" name="password" value="{{request.form['password']}}" required>
23 </div>
24 <div class="input-box">
25 <span class="details">Confirm Password</span>
26 <input type="password" placeholder="Confirm your password" name="cpassword" value="{{request.form['cpassword']}}" required>
27 </div>
28 </div>
29 <div class="button"><input type="submit" value="Register"></div>
30 </form>
31 </div>
32 </div>
33 </body>
34 </html>
```

Login.html

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <link rel="stylesheet" href="/static/style.css">
8   <link rel="stylesheet" href="{{url_for('static',filename='style.css')}}" type="text/css">
9   <title>Login Page</title>
10 </head>
11 <body>
12   <div class="container">
13     <div class="title">login</div>
14     <div class="content">
15       <form method="post" action="login">
16         <div class="user-details">
17           <div class="input-box">
18             <span class="details">Phone Number</span>
19             <input type="text" placeholder="Enter your number" name="phone" value="{{request.form['phone']}}" required>
20           </div>
21           <br>
22           <div class="input-box">
23             <span class="details">Password</span>
24             <input type="password" placeholder="Enter your password" name="password" value="{{request.form['password']}}" required>
25           </div>
26         </div>
27         <div class="button">
28           <input type="submit" value="Login">
29         </div>
30       </form>
31     </div>
32   </div></body>
33 </html>
```

Style.css

```
1 *{
2   margin: 0;
3   padding: 0;
4   box-sizing: border-box;
5   font-family: 'Poppins', sans-serif;
6 }
7 body{
8   height: 100vh;
9   display: flex;
10  justify-content: center;
11  align-items: center;
12  padding: 10px;
13  background: linear-gradient(135deg, #71b7e6, #9b59b6);
14 }
15 .container{
16   max-width: 700px;
17   width: 100%;
18   background-color: #fff;
19   padding: 25px 30px;
20   border-radius: 5px;
21   box-shadow: 0 5px 10px rgba(0,0,0,0.15);
22 }
23 .container .title{
24   font-size: 25px;
25   font-weight: 500;
26   position: relative;
27 }
28 .container .title::before{
29   content: "";
30   position: absolute;
31   left: 0;
32   bottom: 0;
33   height: 3px;
34   width: 30px;
35   border-radius: 5px;
36   background: linear-gradient(135deg, #71b7e6, #9b59b6);
37 }
```

OUTPUT :-

Registration Page:-

Registration

Username

Shayu

Phone Number

9894222470

Password

.....

Confirm Password

.....

Register

Login Page:-

Login

Phone Number

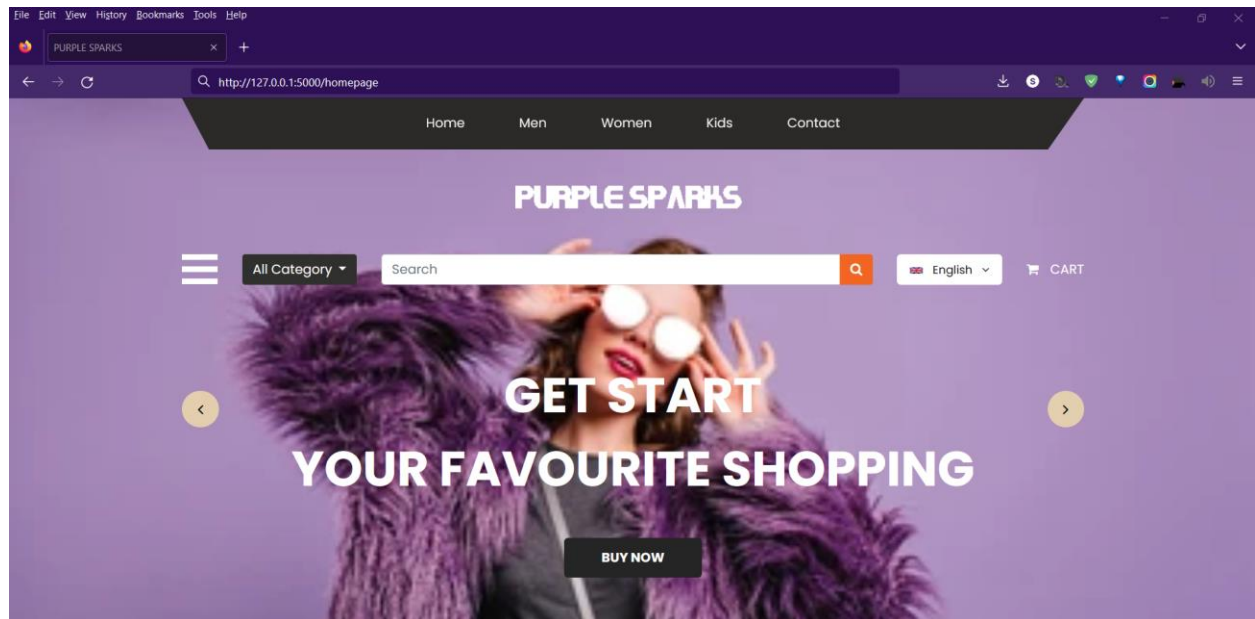
9894222470

Password

.....

Login

Welcome page:-



Database Table :-

