

## ASSIGNMENT 2

### CLOUD APPLICATION DEVELOPMENT

Assignment Date	19 September 2022
Student Name	Sanofer Fathima AR
Student Roll Number	813819104084
Maximum Marks	2 Marks

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

The screenshot shows the IBM Db2 on Cloud console. The 'Generate SQL' tab is active, displaying a SQL script that inserts four rows into a table named 'TZG17937'.USER. The script uses the following values:

```

1 INSERT
2 INTO "TZG17937". "USER" ("ROLLNUMBER", "EMAIL", "PASSWORD", "USERNAME")
3 VALUES(
4 '104', --ROLLNUMBER VARCHAR(32)
5 'shafna@gmail.com', --EMAIL VARCHAR(32)
6 'shaf234', --PASSWORD VARCHAR(32)
7 'shafnarocks' --USERNAME VARCHAR(32)

```

The 'History' tab shows the execution results:

Script	Date	Status	Runtime
Untitled - 1	Sep 29, 2022 7:33:03 PM	✓ 1	0.011 s
INSERT INTO "TZG17937". "USER" ("ROLLNUMBER", "EMAIL", "PASSWORD", "USERNAME") VALUES( '104', --ROLLN...		✓	0.011 s

The screenshot shows the IBM Db2 on Cloud console displaying the 'TZG17937.USER' table. The table has four columns: ROLLNUMBER, EMAIL, PASSWORD, and USERNAME. The data is as follows:

ROLLNUMBER	EMAIL	PASSWORD	USERNAME
101	sanoferasheed29@gmail.com	1234	sanoferasheed
102	shirts12@gmail.com	shirts123	shirleywatson
103	asif23@gmail.com	asif123	asifrasheed
104	shafna@gmail.com	shaf234	shafnarocks

Thus a user table is created.

## 2. Perform UPDATE,DELETE Queries with user table

### UPDATE

The screenshot displays the IBM Db2 on Cloud web interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, showing a list of tables. The 'TZG17937.USER' table is highlighted, and its data is displayed in a table view. The table has four columns: 'ROLLNUMBER', 'EMAIL', 'PASSWORD', and 'USERNAME'. The data rows are as follows:

ROLLNUMBER	EMAIL	PASSWORD	USERNAME
101	sanoferasheed29@gmail.com	1234	sanrasheed
102	shirts12@gmail.com	shirts123	shirleywatson
103	asif23@gmail.com	asif123	asifrasheed
104	shafna@gmail.com	shaf098	shafnarocks

The 'PASSWORD' for user 104 is highlighted with a red box. Below the table, there is a 'History' section showing the execution of the SQL query. The query is:

```
UPDATE "TZG17937"."USER"  
SET "PASSWORD" = 'shaf098' --PASSWORD VARCHAR(32)  
--Search condition (e.g. WHERE "ROLLNUMBER" = NULL)  
WHERE "ROLLNUMBER" = '104';
```

The query was executed successfully on Sep 29, 2022 at 7:37:14 PM, with a runtime of 0.027 s. The 'History' table shows the status of the query as 'Success'.

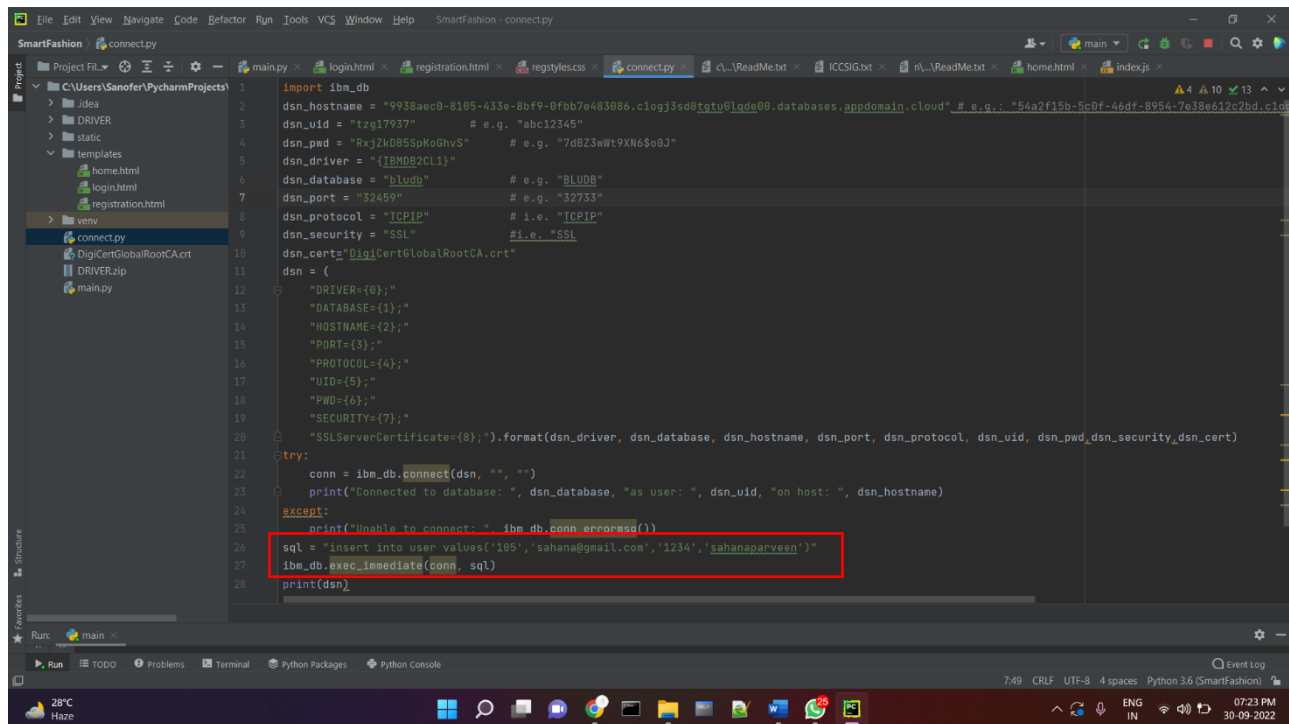
Thus for user id 104 the password has been updated from “shaf234” to “shaf098”.

## DELETE

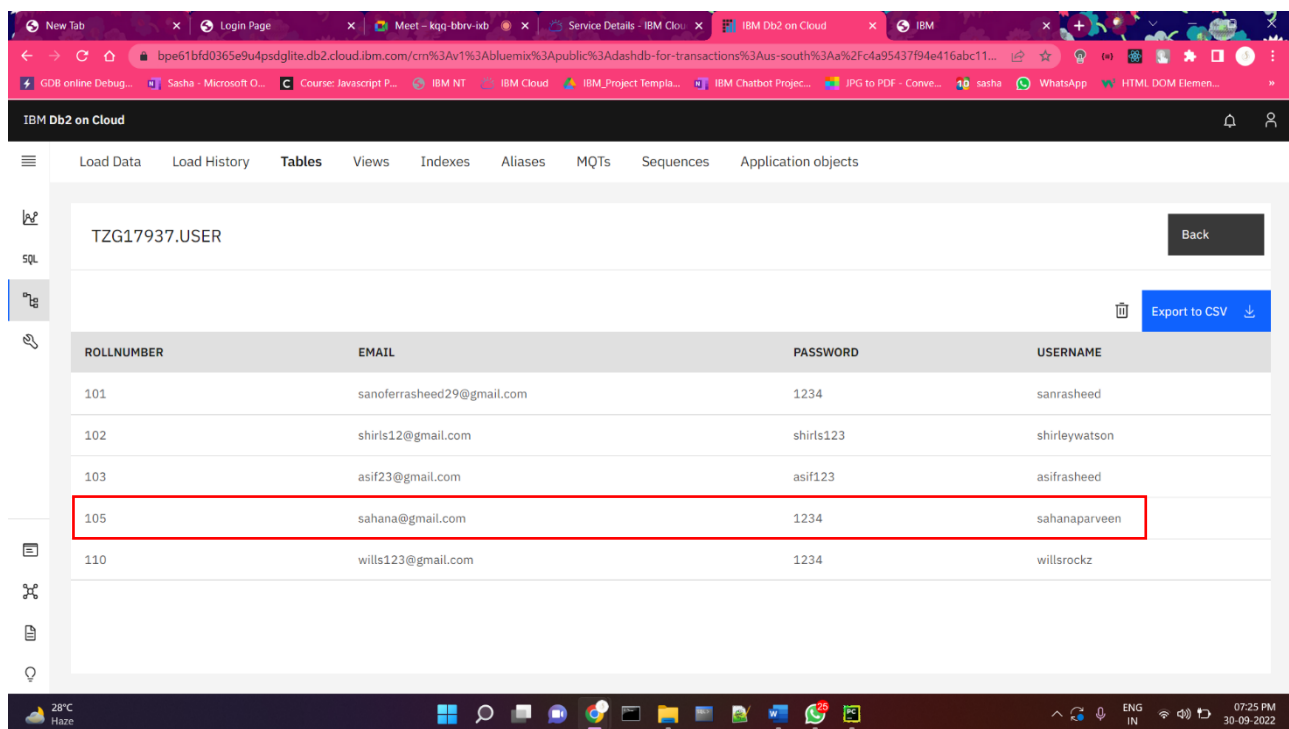
[illegible][illegible]

Thus userid 104 has been deleted.

### 3. Connect python code to db2.



```
1 import ibm_db
2 dsn_hostname = "9938aec0-8105-433e-8bf9-0fbb7e483086.clogj3sd0tqtu0lqde00.databases.appdomain.cloud" # e.g.: "54a2f15b-5c0f-46df-8954-7e38e612c2bd.cloud.ibm.com"
3 dsn_uid = "tzg17937" # e.g. "abc12345"
4 dsn_pwd = "RxjZkDB5SpKoGhvS" # e.g. "7d8Z3wWt9XN6So0J"
5 dsn_driver = "{IBMDB2CL1}"
6 dsn_database = "bludb" # e.g. "BLUDB"
7 dsn_port = "32459" # e.g. "32733"
8 dsn_protocol = "TCPIP" # i.e. "TCPIP"
9 dsn_security = "SSL" # i.e. "SSL"
10 dsn_certs = "BiglCertGlobalRootCA.crt"
11 dsn = (
12     "DRIVER={0};"
13     "DATABASE={1};"
14     "HOSTNAME={2};"
15     "PORT={3};"
16     "PROTOCOL={4};"
17     "UID={5};"
18     "PWD={6};"
19     "SECURITY={7};"
20     "SSLServerCertificate={8};".format(dsn_driver, dsn_database, dsn_hostname, dsn_port, dsn_protocol, dsn_uid, dsn_pwd, dsn_security, dsn_certs)
21 )
22 try:
23     conn = ibm_db.connect(dsn, "", "")
24     print("Connected to database: ", dsn_database, "as user: ", dsn_uid, "on host: ", dsn_hostname)
25 except:
26     print("Unable to connect: ", ibm_db.conn_errormsg())
27 sql = "insert into user values('105','sahana@gmail.com','1234','sahanaparveen')"
28 ibm_db.exec_immediate(conn, sql)
29 print(dsn)
```



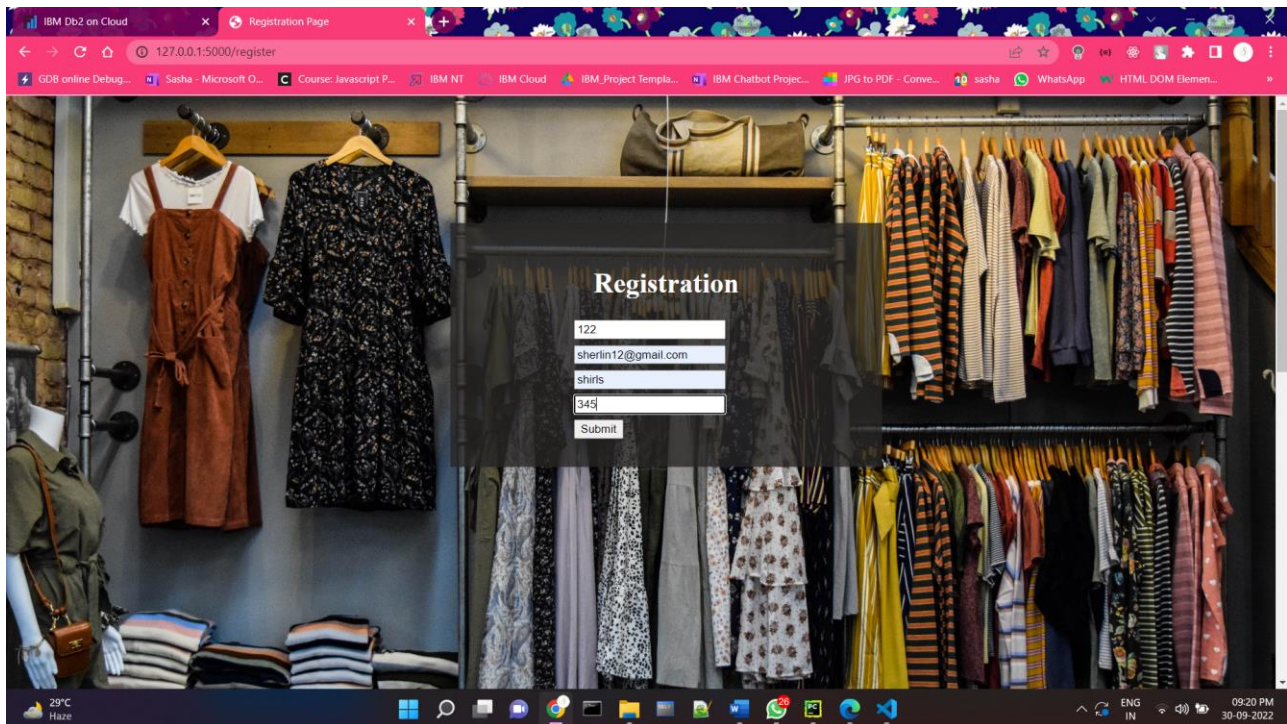
ROLLNUMBER	EMAIL	PASSWORD	USERNAME
101	sanoferasheed29@gmail.com	1234	sanrasheed
102	shirls12@gmail.com	shirls123	shirleywatson
103	asif23@gmail.com	asif123	asifrasheed
105	sahana@gmail.com	1234	sahanaparveen
110	wills123@gmail.com	1234	willsrockz

Here after connecting db2 with python, insertion of values in database is successful.

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.

The respective codes is attached

## Registration Page



After the user is registered, the data is inserted in the table.

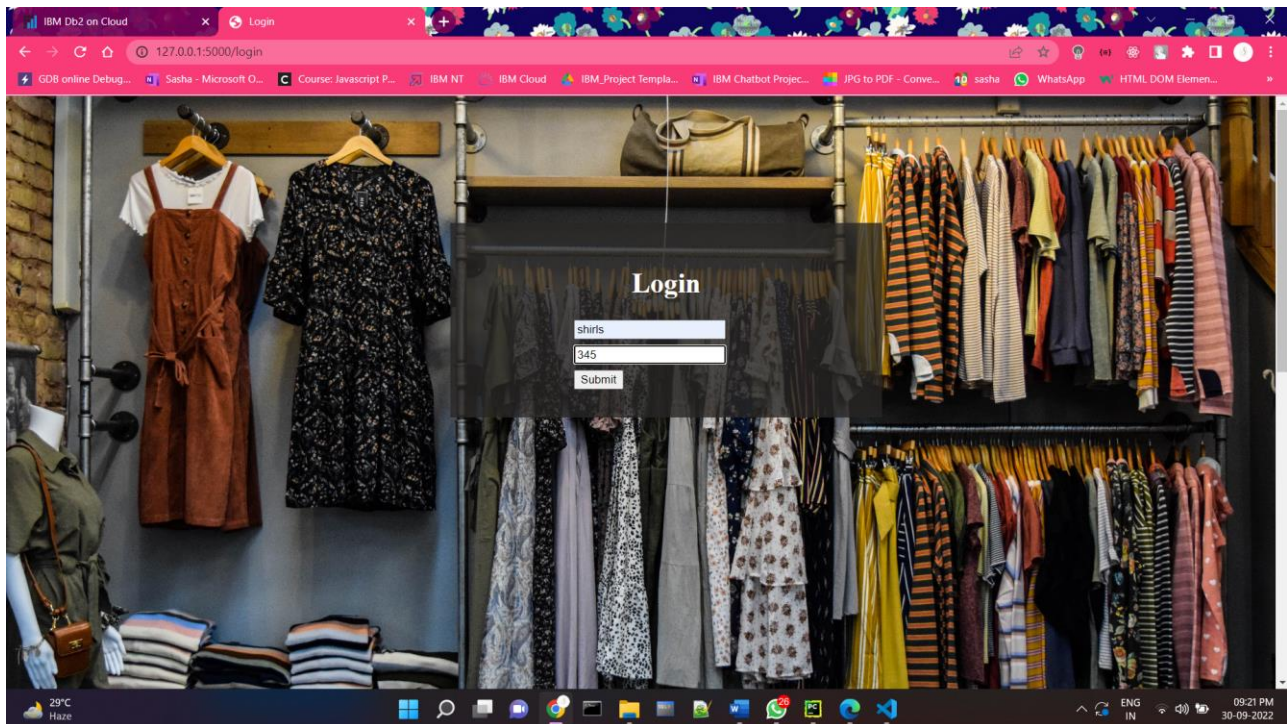
The screenshot shows the IBM Db2 on Cloud console interface. The table "TZG17937.USER" is displayed with the following data:

ROLLNUMBER	EMAIL	PASSWORD	USERNAME
103	asif23@gmail.com	asif123	asifrasheed
105	sahana@gmail.com	1234	sahanaparveen
110	wills123@gmail.com	1234	willsrockz
111	jack23@gmail.com	890	jacklove
112	jill123@gmail.com	456	jilqueen
121	katie34@gmail.com	345	kati265
122	sherlin12@gmail.com	345	shirls

The last row (Roll Number 122) is highlighted with a red border.



## Login Page:



After logging with credentials, the user is redirected to home page.

