

ASSIGNMENT – 2

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

TABLE CREATION:

The screenshot shows the IBM Db2 on Cloud web interface. The 'Tables' tab is selected, displaying a list of tables in the 'GTJ96174' schema. The 'USER2' table is highlighted. The 'Table definition' panel on the right shows the table structure:

Name	Data type	Nullable	Length	Scale
EMAIL	VARCHAR	Y	32	0
PASSWORD	VARCHAR	Y	32	0
ROLLNO	VARCHAR	Y	32	0
USERNAME	VARCHAR	Y	32	0

The bottom of the interface shows the Windows taskbar with various application icons and the system clock indicating 4:02 PM on 10/30/2022.

The screenshot shows the IBM Db2 on Cloud web interface with the 'SQL' tab selected. The 'Data objects' panel on the left shows the 'GTJ96174' schema. The main area displays the execution results of an SQL script. The script contains four INSERT statements, and the results show that all four statements were executed successfully.

Script	Date	Status	Runtime
Untitled - 1	Oct 30, 2022 4:19:10 PM	4	0.016 s
insert into USER2 values('narensam2002@gmail.com','NAREN', 38 , 'NAREN');		✓	0.006 s
insert into USER2 values('143@gmail.com','143',11,'143');		✓	0.003 s
insert into USER2 values('asdf@gmail.com','asdf',23,'asdf');		✓	0.004 s
insert into USER2 values('user2@gmail.com','user',22,'user2');		✓	0.003 s

The bottom of the interface shows the Windows taskbar with various application icons and the system clock indicating 4:18 PM on 10/30/2022.

IBM Db2 on Cloud

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

GTJ96174.USER2

Back

Export to CSV

EMAIL	PASSWORD	ROLLNO	USERNAME
143@gmail.com	143	11	143
asdf@gmail.com	asdf	23	asdf
narensam2002@gmail.com	NAREN	38	NAREN
user2@gmail.com	user	22	user2

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Go to PC settings to activate Windows.

4:17 PM
10/30/2022

2. PERFORM UPDATE, DELETE QUERIES WITH USER TABLE

UPDATE QUERY:

IBM Db2 on Cloud

Data objects Saved objects

Filter objects

GTJ96174

Untitled - 1

```
1 insert into USER2 values('narensam2002@gmail.com','NAREN', 38 ,'NAREN');
2 insert into USER2 values('143@gmail.com','143',11,'143');
3 insert into USER2 values('asdf@gmail.com','asdf',23,'asdf');
4 insert into USER2 values('user2@gmail.com','user',22,'user2');
5
6 update USER2 set rollno=16 where username='user2';
```

History

Script	Date	Status	Runtime
Untitled - 1	Oct 31, 2022 8:02:28 PM	1	0.005 s
update USER2 set rollno=16 where username='user2'			0.005 s

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8:01 PM
10/31/2022

IBM Db2 on Cloud

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

GTJ96174.USER2

Back

Export to CSV

EMAIL	PASSWORD	ROLLNO	USERNAME
143@gmail.com	143	11	143
asdf@gmail.com	asdf	23	asdf
narensam2002@gmail.com	NAREN	38	NAREN
user2@gmail.com	user	16	user2

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Go to PC settings to activate Windows.

8:01 PM
10/31/2022

DELETE QUERY:

The screenshot shows the IBM Db2 on Cloud console. In the SQL editor, the following queries are entered:

```
1 insert into USER2 values('narensam2002@gmail.com','NAREN', 38,'NAREN');
2 insert into USER2 values('143@gmail.com','143',11,'143');
3 insert into USER2 values('asdf@gmail.com','asdf',23,'asdf');
4 insert into USER2 values('user2@gmail.com','user',22,'user2');
5
6 delete from USER2 where rollno=11;
```

The execution history table below shows the results of the queries:

Script	Date	Status	Runtime
Untitled - 1	Oct 30, 2022 4:27:38 PM	5	0.027 s
insert into USER2 values('narensam2002@gmail.com','NAREN', 38...		✓	0.010 s
insert into USER2 values('143@gmail.com','143',11,'143')		✓	0.004 s
insert into USER2 values('asdf@gmail.com','asdf',23,'asdf')		✓	0.003 s
insert into USER2 values('user2@gmail.com','user',22,'user2')		✓	0.004 s

The screenshot shows the IBM Db2 on Cloud console displaying the data in the USER2 table. The table has the following columns: EMAIL, PASSWORD, ROLLNO, and USERNAME.

EMAIL	PASSWORD	ROLLNO	USERNAME
asdf@gmail.com	asdf	23	asdf
narensam2002@gmail.com	NAREN	38	NAREN
user2@gmail.com	user	22	user2

3. CONNECT PYTHON TO DB2

CONNECTING TO DB:

ass.py

```
from flask import Flask, render_template, redirect, url_for, request, session
import ibm_db
import re
```

```

app = Flask(__name__)
app.secret_key = 'a'

conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=19af6446-6171-4641-8aba-
9dcff8e1b6ff.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=30699;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt; UID=gtj96174; PWD=x1ccK9ZPS7Tu763i;", "", "")

@app.route('/')
def home():
    return render_template('reg2.html')

@app.route('/login', methods=["GET", "POST"])
def login():
    global userid
    msg = ""
    if request.method == "POST":
        username = request.form['uname']
        password = request.form['pwd']
        sql = "SELECT * FROM USER2 WHERE USERNAME=? AND PASSWORD=?"
        stmt = ibm_db.prepare(conn, sql)
        ibm_db.bind_param(stmt, 1, username)
        ibm_db.bind_param(stmt, 2, password)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)

    print(account)
    if account:
        session['loggedin'] = True
        session['id'] = account['USERNAME']
        userid = account["USERNAME"]
        session['username'] = account["USERNAME"]
        msg = 'Logged in successfully!'
        return redirect(url_for('welcome', username=username))
    else:
        msg = "Incorrect Username/Password"
        return render_template('login.html', msg=msg)

@app.route('/reg2', methods=["GET", "POST"])
def registration():
    msg = ""
    if request.method == "POST":
        username = request.form['uname']
        email = request.form['email']
        password = request.form['pwd']
        rollno = request.form['rollno']
        sql = "SELECT * FROM USER2 WHERE USERNAME=?"
        stmt = ibm_db.prepare(conn, sql)
        ibm_db.bind_param(stmt, 1, username)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)

```

```

print(account)
if account:
    msg = "Account already exists!"
elif not re.match(r'^[^\s@]+@[^\s@]+\.[^\s@]+', email):
    msg = "Invalid Email Address."
elif not re.match(r'[A-Za-z0-9]+', username):
    msg = "Username must contain only alphabets and numbers."
else:
    insert_sql = "INSERT INTO USER2 VALUES(?,?,?,?)"
    prep_stmt = ibm_db.prepare(conn, insert_sql)
    ibm_db.bind_param(prepare_stmt, 1, email)
    ibm_db.bind_param(prepare_stmt, 2, username)
    ibm_db.bind_param(prepare_stmt, 3, rollno)
    ibm_db.bind_param(prepare_stmt, 4, password)
    ibm_db.execute(prepare_stmt)
    msg = "You have successfully registered."
return render_template('login.html', msg=msg)

elif request.method == 'POST':
    msg = "Please fill out the form."
    return render_template('reg2.html', msg=msg)

@app.route('/welcome/<username>')
def welcome(username):
    return "Welcome %s!" % username

if __name__ == "__main__":
    app.run(host='0.0.0.0')

```

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

reg.html (Registration Page):-

```

<html>
<body>
  <center>
    <h3><b>REGISTRATION FOR PLASMA DONATION</b></h3>
    <form action = "http://localhost:5000/reg2" method = "POST">
      <p>Enter Register No.: <input type = "text" name="rollno"/></p>
      <p>Enter Email ID: <input type = "text" name="email"/></p>
      <p>Enter Username: <input type = "text" name="uname"/></p>
      <p>Enter Password: <input type = "password" name="pwd"/></p>
      <p><input type = "submit" value="SUBMIT"/></p>
    </form>
  </center>
</body>

```

</html>

login.html (Login Page):-

<html>

<body>

<center>

<h3>LOGIN</h3>

<form action="http://localhost:5000/login" method="POST">

<p>Enter Username: <input type="text" name="uname" /></p>

<p>Enter Password: <input type="password" name="pwd" /></p>

<p><input type="submit" value="SUBMIT" /></p>

</form>

</center>

</body>

</html>

Registration page:

127.0.0.1:5000

REGISTER FOR PLASMA DONATION

Enter Register No.: 4038

Enter Email ID: naren@gmail.com

Enter Username: naren

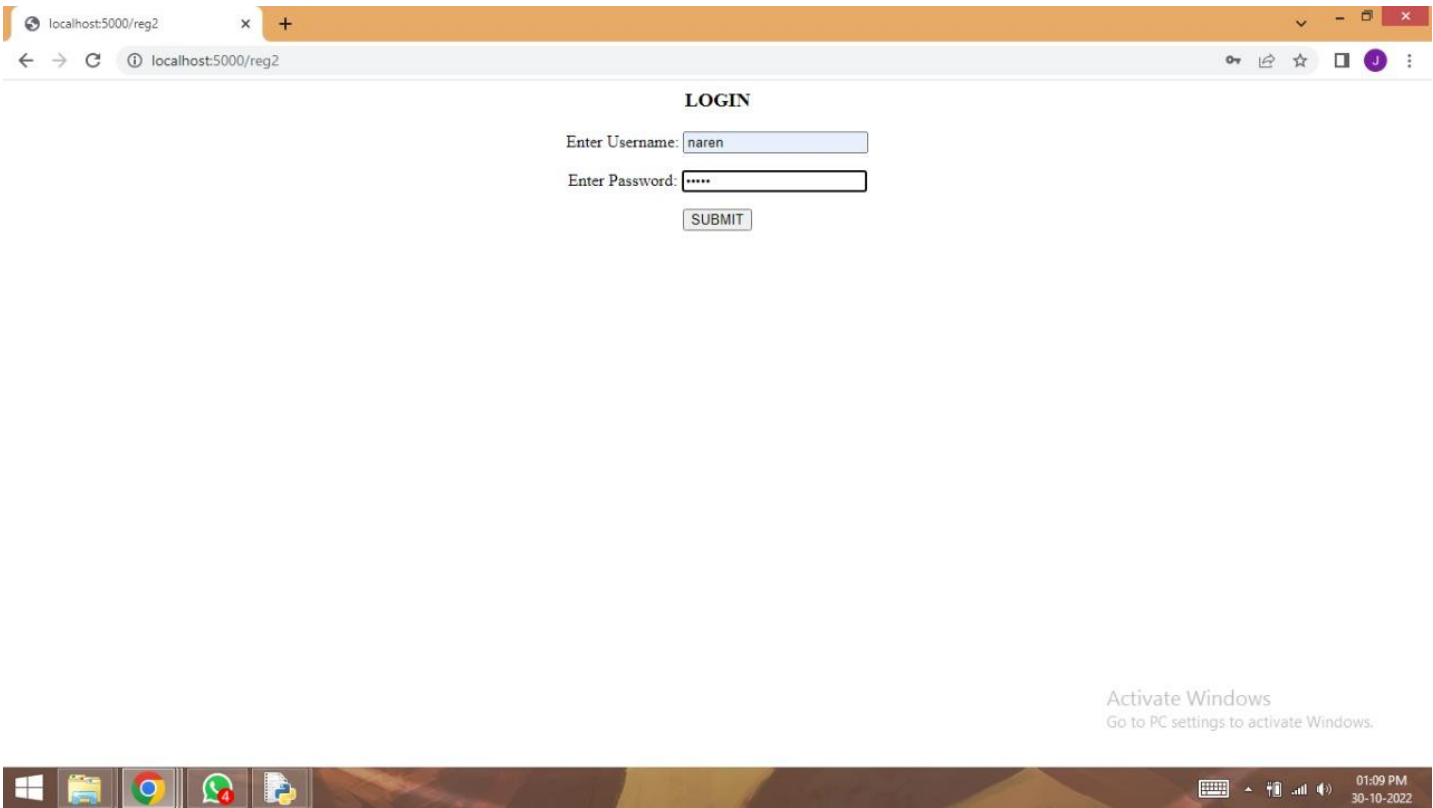
Enter Password:

SUBMIT

Activate Windows
Go to PC settings to activate Windows.

01:09 PM
30-10-2022

Login Page:



Welcome Page:

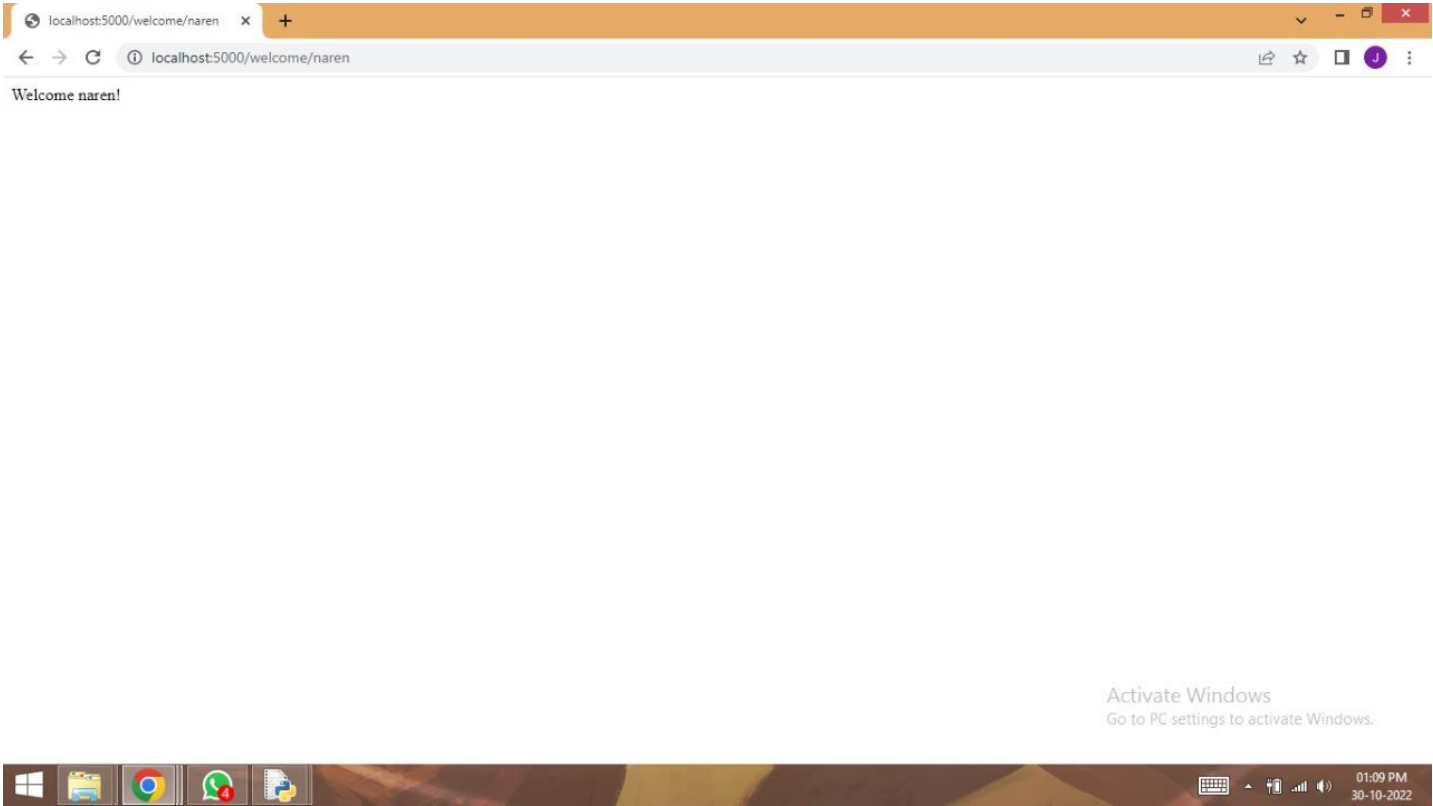


Table Insertion:

IBM Db2 on Cloud

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

RRJ92864.USERS

Back

Export to CSV

EMAIL	USERNAME	ROLLNO	PASSWORD
naren@gmail.com	naren	4038	naren

Activate Windows
Go to PC settings to activate Windows.

