

ASSIGNMENT – 2

Name	KEERTHI SELVAKUMAR
Register Number	311519104028
Email ID	keerthiselvakumar123@gmail.com
Team Number	PNT2022TMID27807

1. Create a user table with user email, username, roll number, password.
2. Perform UPDATE,DELETE queries with user table
3. Connect python to db2
4. Create a flask app with registration page, login page and welcome page. By default load the registration page one the user enters all the fields store the data in the database and navigate to login page authenticate user username and password. If the user is valid show the welcome page.

1. TABLE CREATION:

The screenshot displays the IBM Db2 on Cloud web interface. The 'Tables' tab is active, showing a list of tables. A table named 'USER' is listed under the schema 'RLG10641'. The 'Table definition' panel on the right shows the structure of the 'USER' table:

Name	Data type	Nullable	Length	Scale
USERNAME	VARCHAR	Y	50	0
ROLLNO	VARCHAR	Y	50	0
EMAIL	VARCHAR	Y	50	0
PASSWORD	VARCHAR	Y	50	0

The interface also shows a search bar for schemas or tables, a 'New table' button, and a 'View data' button. The bottom of the screen shows the Windows taskbar with the date and time as 19:37 on 13-10-2022.

IBM Db2 on Cloud

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F01fa9db8b59640e3bfd3596387cccc60%3Aa95221f8-a33f-45ff-...

IBM Db2 on Cloud

Data objects

My script

Filter objects

RLG10641

*Untitled - 1

Syntax assistant

Run all

```
1 insert into user values ('keerthi','311519104028','keerthi@gmail.com','keerthi010702');
2 insert into user values ('anchana','311519104009','anchu@gmail.com','anchu9');
3 insert into user values ('diksha','311519104015','diksha@gmail.com','diksha15');
4 insert into user values ('dhana','311519104012','dhana@gmail.com','dhana12');
```

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Oct 13, 2022 7:46:29 PM	4	0.098 s
insert into user values ('keerthi','311519104028','keerthi@gmail.com','keer...			0.032 s
insert into user values ('anchana','311519104009','anchu@gmail.com','anchu9...			0.027 s
insert into user values ('diksha','311519104015','diksha@gmail.com','diksha...			0.020 s
insert into user values ('dhana','311519104012','dhana@gmail.com','dhana12')			0.019 s

Type here to search29°C Cloudy19:4613-10-2022

IBM Db2 on Cloud

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F01fa9db8b59640e3bfd3596387cccc60%3Aa95221f8-a33f-45ff-...

IBM Db2 on Cloud

Load Data

Load History

Tables

Views

Indexes

Aliases

MQTs

Sequences

Application objects

RLG10641.USER

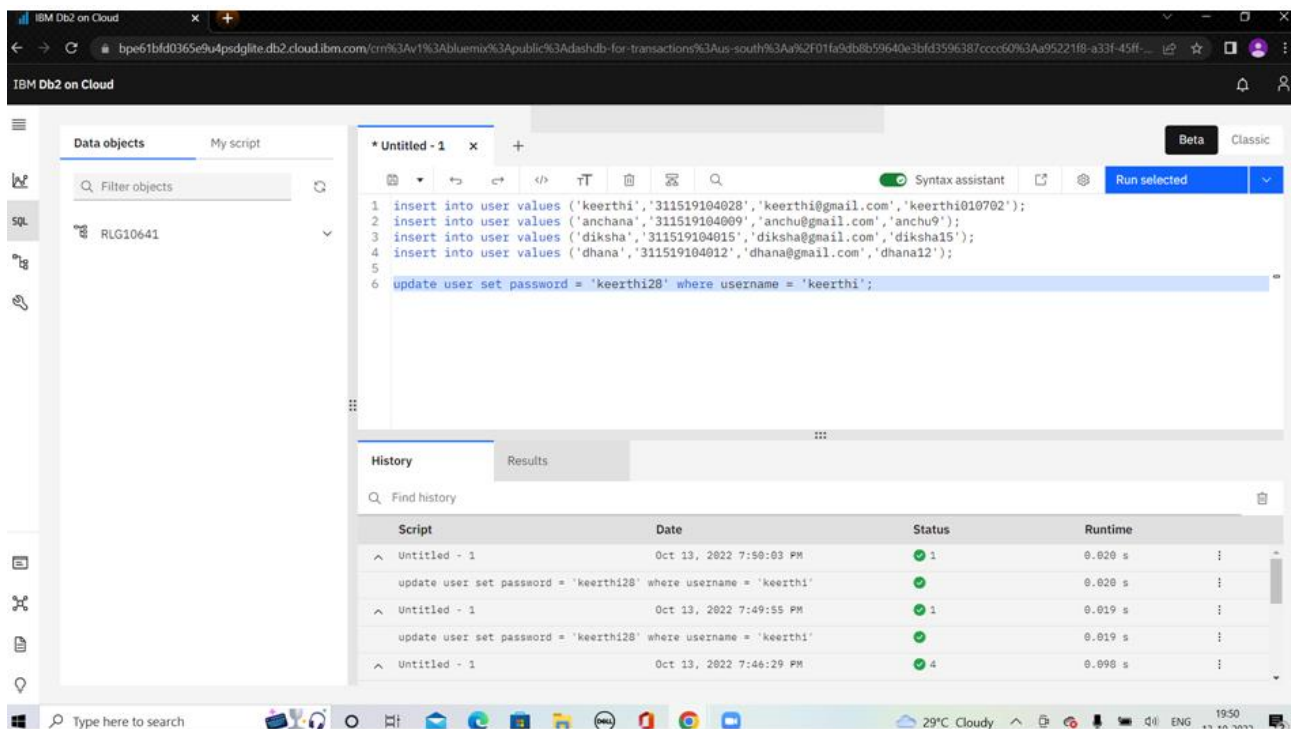
Back

Export to CSV

USERNAME	ROLLNO	EMAIL	PASSWORD
anchana	311519104009	anchu@gmail.com	anchu9
dhana	311519104012	dhana@gmail.com	dhana12
diksha	311519104015	diksha@gmail.com	diksha15
keerthi	311519104028	keerthi@gmail.com	keerthi010702

Type here to search29°C19:5413-10-2022

2. UPDATE QUERY:

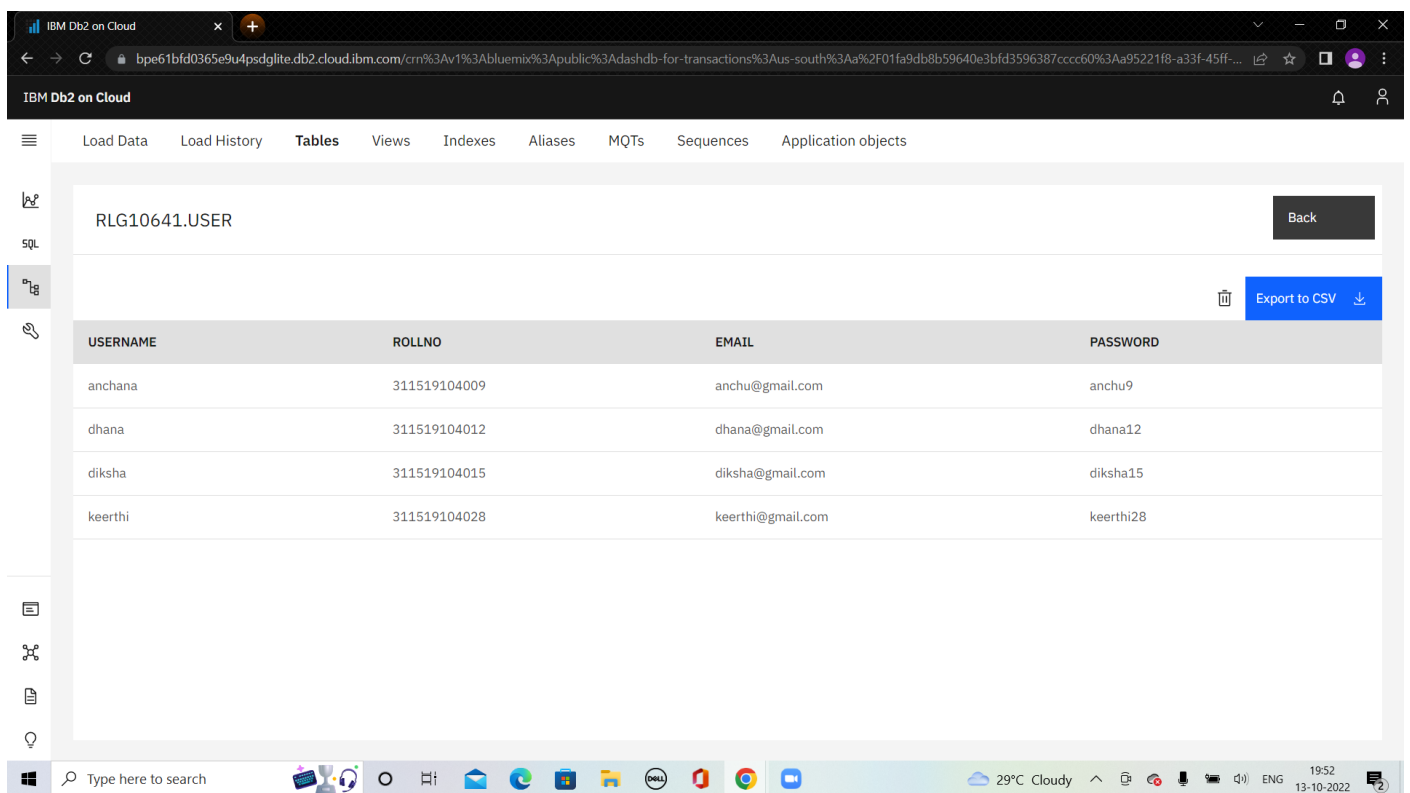


The screenshot shows the IBM Db2 on Cloud console. On the left, the 'Data objects' pane shows a database named 'RLG10641'. The main area is a script editor titled 'Untitled - 1' containing the following SQL queries:

```
1 insert into user values ('keerthi','311519104028','keerthi@gmail.com','keerthi010702');
2 insert into user values ('anchana','311519104009','anchu@gmail.com','anchu9');
3 insert into user values ('diksha','311519104015','diksha@gmail.com','diksha15');
4 insert into user values ('dhana','311519104012','dhana@gmail.com','dhana12');
5
6 update user set password = 'keerthi28' where username = 'keerthi';
```

Below the script editor is a 'History' tab showing a table of executed queries:

Script	Date	Status	Runtime
Untitled - 1	Oct 13, 2022 7:50:03 PM	✓ 1	0.020 s
update user set password = 'keerthi28' where username = 'keerthi'		✓	0.020 s
Untitled - 1	Oct 13, 2022 7:49:55 PM	✓ 1	0.019 s
update user set password = 'keerthi28' where username = 'keerthi'		✓	0.019 s
Untitled - 1	Oct 13, 2022 7:46:29 PM	✓ 4	0.090 s



The screenshot shows the IBM Db2 on Cloud console displaying the 'USER' table in the 'RLG10641' database. The table has the following columns: USERNAME, ROLLNO, EMAIL, and PASSWORD. The data is as follows:

USERNAME	ROLLNO	EMAIL	PASSWORD
anchana	311519104009	anchu@gmail.com	anchu9
dhana	311519104012	dhana@gmail.com	dhana12
diksha	311519104015	diksha@gmail.com	diksha15
keerthi	311519104028	keerthi@gmail.com	keerthi28

DELETE QUERY:

IBM Db2 on Cloud

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F01fa9db8b59640e3bfd3596387cccc60%3Aa95221f8-a33f-45ff-...

IBM Db2 on Cloud

Data objects

My script

Filter objects

RLG10641

*Untitled - 1

Beta Classic

Syntax assistant

Run selected

1 insert into user values ('keerthi','311519104028','keerthi@gmail.com','keerthi010702');

2 insert into user values ('anchana','311519104009','anchu@gmail.com','anchu9');

3 insert into user values ('diksha','311519104015','diksha@gmail.com','diksha15');

4 insert into user values ('dhana','311519104012','dhana@gmail.com','dhana12');

5

6 update user set password = 'keerthi28' where username = 'keerthi';

7

8 delete from user where username='dhana';

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Oct 13, 2022 7:56:42 PM	1	0.020 s
delete from user where username='dhana'			0.020 s
Untitled - 1	Oct 13, 2022 7:55:05 PM	1	0.020 s
update user set password = 'keerthi28' where username = 'keerthi'			0.020 s

Type here to search

29°C

19:56 13-10-2022

IBM Db2 on Cloud

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F01fa9db8b59640e3bfd3596387cccc60%3Aa95221f8-a33f-45ff-...

IBM Db2 on Cloud

Load Data

Load History

Tables

Views

Indexes

Aliases

MQTs

Sequences

Application objects

RLG10641.USER

Back

Export to CSV

USERNAME	ROLLNO	EMAIL	PASSWORD
anchana	311519104009	anchu@gmail.com	anchu9
diksha	311519104015	diksha@gmail.com	diksha15
keerthi	311519104028	keerthi@gmail.com	keerthi28

Type here to search

29°C

19:56 13-10-2022

3. CONNECTING TO DB:

register.html (Registration Page):-

```
<!DOCTYPE html>
<html lang="en" >
<head>
  <meta charset="UTF-8">
  <link rel="apple-touch-icon" type="image/png" href="https://cpwebassets.codepen.io/assets/favicon/apple-
touch-icon-5ae1a0698dcc2402e9712f7d01ed509a57814f994c660df9f7a952f3060705ee.png" />
  <meta name="apple-mobile-web-app-title" content="CodePen">
  <title>Register Page</title>
<style>
body{
  margin: 0;
  padding: 0;
  font-family: 'Roboto', sans-serif;
  background: #ffccff;
}
.box{
  width: 300px;
  padding: 40px;
  position: absolute;
  top: 50%;
  left: 50%;
  transform: translate(-50%, -50%);
  background: #191919;
  text-align: center;
  border-radius: 50px;
  box-shadow: 10px 10px 20px #000000;
}
.box h1{
  color: white;
  text-transform: uppercase;
  font-weight: 300px;
}
.box input[type="text"]{
  border: 0;
  background: none;
  display: block;
  margin: 20px auto;
  text-align: center;
  border: 2px solid #800080;
  padding: 14px 10px;
  width: 200px;
  outline: none;
  color: white;
  border-radius: 24px;
  transition: 0.25s;
}
.box input[type="password"]{
```

```
border: 0;
background: none;
display: block;
margin: 20px auto;
text-align: center;
border: 2px solid #990099;
padding: 14px 10px;
width: 200px;
outline: none;
color: white;
border-radius: 24px;
transition: 0.25s;
}
.box input[type="text"]:focus{
  width: 280px;
  border-color: #ff99ff;
}
.box input[type="password"]:focus{
  width: 280px;
  border-color: #ff99ff;
}
.box input[type="submit"]{
  border: 0;
  background: none;
  display: block;
  margin: 20px auto;
  text-align: center;
  border: 2px solid #990099;
  padding: 14px 40px;
  outline: none;
  color: white;
  border-radius: 24px;
  transition: 0.25s;
  cursor: pointer;
}
.box input[type="submit"]:hover{
  background: #ff99ff;
}
</style>
```

```
<script>
window.console = window.console || function(t) {};
</script>
```

```
<script>
if (document.location.search.match(/type=embed/gi)) {
  window.parent.postMessage("resize", "*");
}
</script>
```

```
</head>
```

```
<body translate="no" >
```

```
<!--Fonts Google-->
```

```
<link rel="preconnect" href="https://fonts.googleapis.com">
```

```
<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
```

```
<link href="https://fonts.googleapis.com/css2?family=Open+Sans:wght@400;700&display=swap" rel="stylesheet">
```

```
<title>RegisterForm</title>
```

```
</head>
```

```
<body>
```

```
<form class="box" action="http://localhost:5000/register" method="POST">
```

```
<h1>Register</h1>
```

```
<input type="text" placeholder="Register Number" name="rollno">
```

```
<input type="text" placeholder="Email ID" name="email">
```

```
<input type="text" placeholder="Username" name="uname">
```

```
<input type="password" placeholder="Password" name="pwd">
```

```
<input type="submit" class="submit" value="Register">
```

```
</form>
```

```
</body>
```

```
</html>
```

```
</body>
```

```
</html>
```

login.html (Login Page):-

```
<!DOCTYPE html>
```

```
<html lang="en" >
```

```
<head>
```

```
<meta charset="UTF-8">
```

```
<link rel="apple-touch-icon" type="image/png" href="https://cpwebassets.codepen.io/assets/favicon/apple-touch-icon-5ae1a0698dcc2402e9712f7d01ed509a57814f994c660df9f7a952f3060705ee.png" />
```

```
<meta name="apple-mobile-web-app-title" content="CodePen">
```

```
<title>Login Page</title>
```

```
<style>
```

```
body{
```

```
margin: 0;
```

```
padding: 0;
```

```
font-family: 'Roboto', sans-serif;
```

```
background: #ffccff;
```

```
}
```

```
.box{
```

```
width: 300px;
```

```
padding: 40px;
```

```
position: absolute;
```

```
top: 50%;
```

```
left: 50%;
```

```
    transform: translate(-50%, -50%);
    background: #191919;
    text-align: center;
    border-radius: 50px;
    box-shadow: 10px 10px 20px #000000;
}
.box h1{
    color: white;
    text-transform: uppercase;
    font-weight: 300px;
}
.box input[type="text"]{
    border: 0;
    background: none;
    display: block;
    margin: 20px auto;
    text-align: center;
    border: 2px solid #800080;
    padding: 14px 10px;
    width: 200px;
    outline: none;
    color: white;
    border-radius: 24px;
    transition: 0.25s;
}
.box input[type="password"]{
    border: 0;
    background: none;
    display: block;
    margin: 20px auto;
    text-align: center;
    border: 2px solid #990099;
    padding: 14px 10px;
    width: 200px;
    outline: none;
    color: white;
    border-radius: 24px;
    transition: 0.25s;
}
.box input[type="text"]:focus{
    width: 280px;
    border-color: #ff99ff;
}
.box input[type="password"]:focus{
    width: 280px;
    border-color: #ff99ff;
}
.box input[type="submit"]{
    border: 0;
    background: none;
    display: block;
```



```

margin: 20px auto;
text-align: center;
border: 2px solid #990099;
padding: 14px 40px;
outline: none;
color: white;
border-radius: 24px;
transition: 0.25s;
cursor: pointer;
}
.box input[type="submit"]:hover{
    background: #ff99ff;
}
</style>

<script>
window.console = window.console || function(t) {};
</script>

<script>
if (document.location.search.match(/type=embed/gi)) {
    window.parent.postMessage("resize", "*");
}
</script>

</head>

<body translate="no" >
<!--Fonts Google-->
<link rel="preconnect" href="https://fonts.googleapis.com">
<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
<link href="https://fonts.googleapis.com/css2?family=Open+Sans:wght@400;700&display=swap"
rel="stylesheet">
<title>LoginForm</title>
</head>
<body>
<form class="box" action="http://localhost:5000/login" method="POST">
<h1>Login</h1>
<input type="text" placeholder="Username" name="uname">
<input type="password" placeholder="Password" name="pwd">
<input type="submit" class="submit" value="Login">
</form>
</body>
</html>
</body>
</html>

```

assignment2.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=54a2f15b-5c0f-46df-8954-
7e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32733;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=rlg10641;PWD=RXmkpVJvDEfgRorF;",",")
@app.route('/')
def home():
    return render_template('register.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 user 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('/register',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 user 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'^@]+@^[^@]+\.[^@]+', 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 user VALUES(?,?,?,?)"
    prep_stmt = ibm_db.prepare(conn,insert_sql)
    ibm_db.bind_param(prepare_stmt,1,username)
    ibm_db.bind_param(prepare_stmt,2,rollno)
    ibm_db.bind_param(prepare_stmt,3,email)
    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)

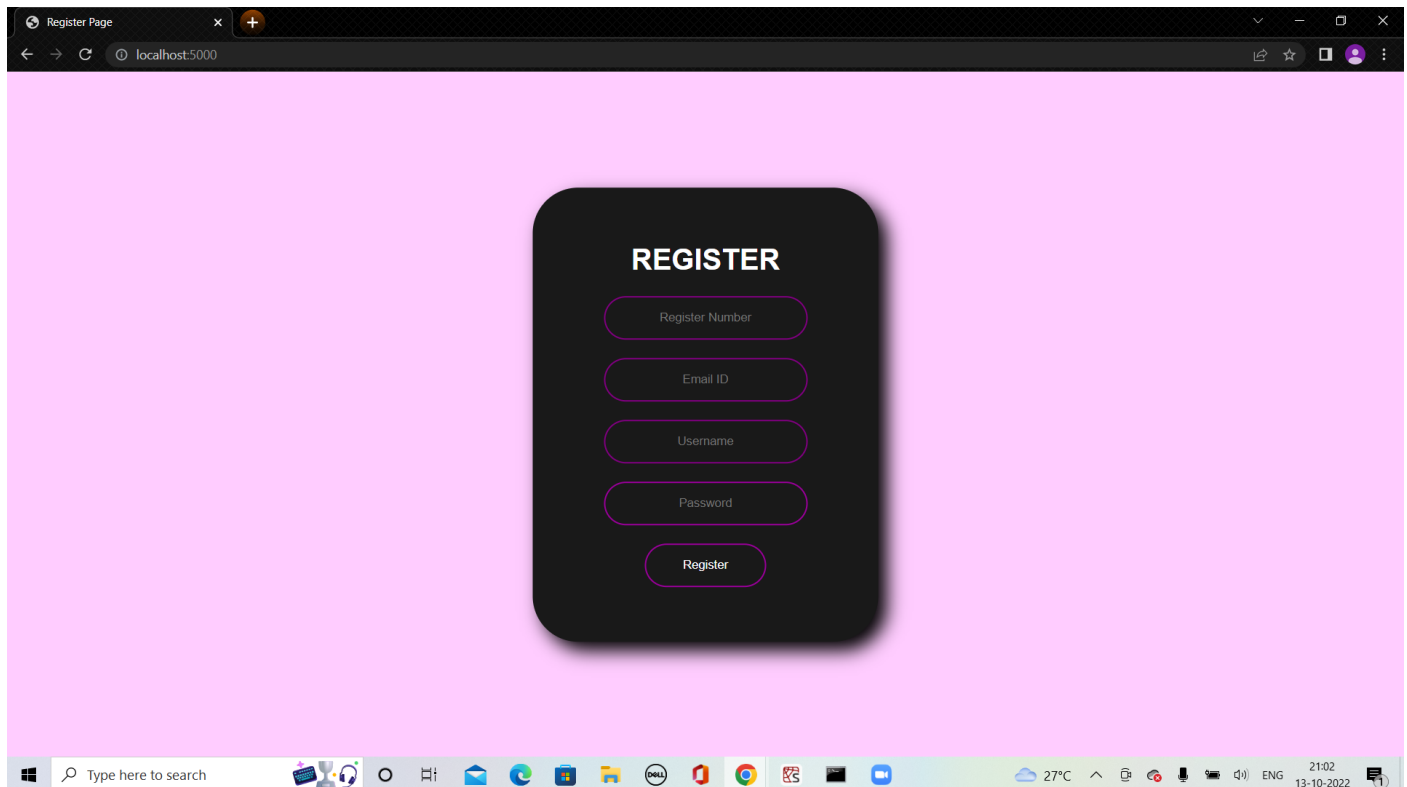
elif request.method == 'POST': msg="Please fill out the form."
return render_template('register.html',msg=msg)

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

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

```

5. REGISTRATION PAGE:



Register Page

localhost:5000

REGISTER

DATABASE INSERTION:

IBM Db2 on Cloud

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F01fa9db8b59640e3bfd3596387cccc60%3Aa95221f8-a33f-45ff-...

IBM Db2 on Cloud

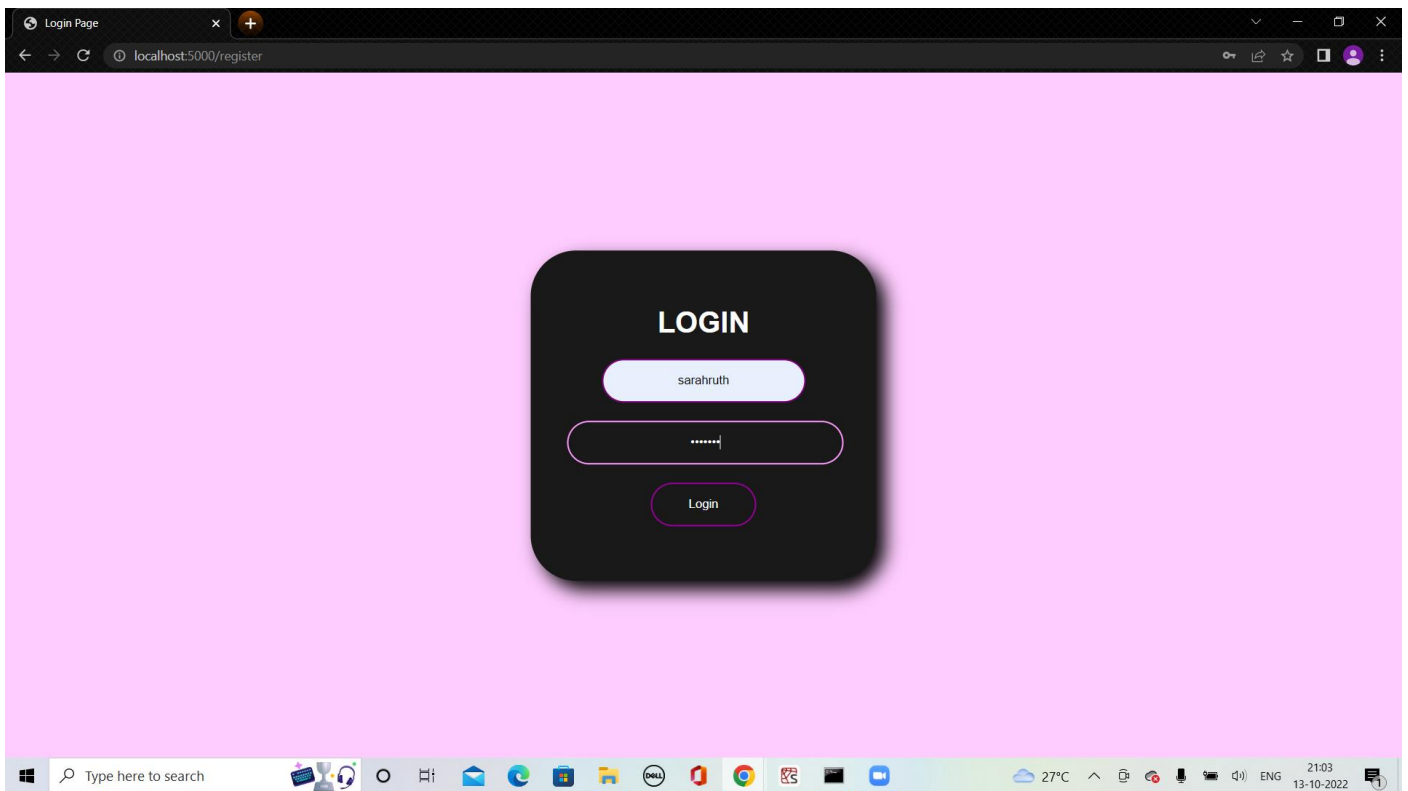
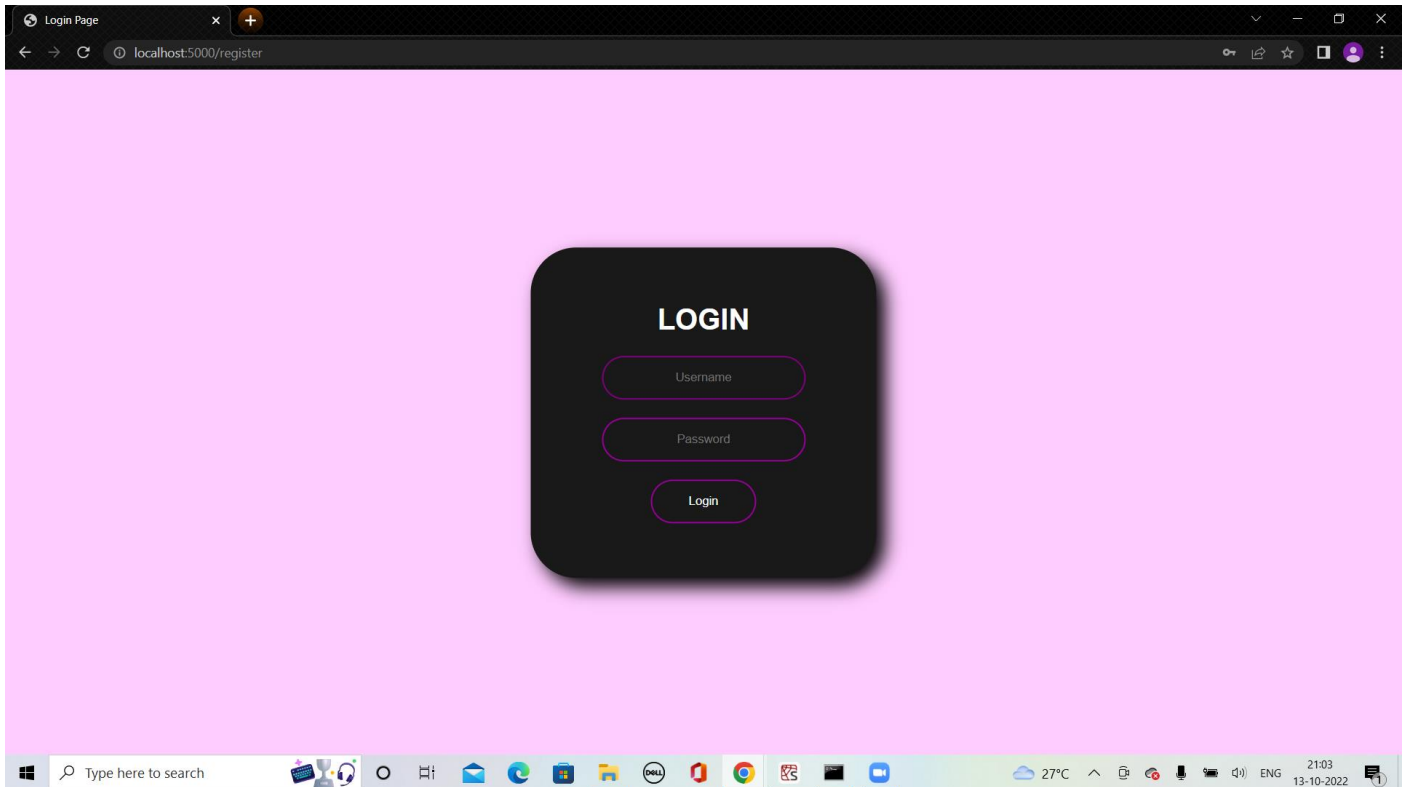
Load Data Load History **Tables** Views Indexes Aliases MQTs Sequences Application objects

RLG10641.USER Back

Export to CSV

USERNAME	ROLLNO	EMAIL	PASSWORD
anchana	311519104009	anchu@gmail.com	anchu9
diksha	311519104015	diksha@gmail.com	diksha15
keerthi	311519104028	keerthi@gmail.com	keerthi28
sarahruth	311519104052	sarah@gmail.com	sarah52
shravani	311519104054	shravs@gmail.com	shravs54

LOGIN PAGE:



WELCOME PAGE:



Welcome sarahruth!

