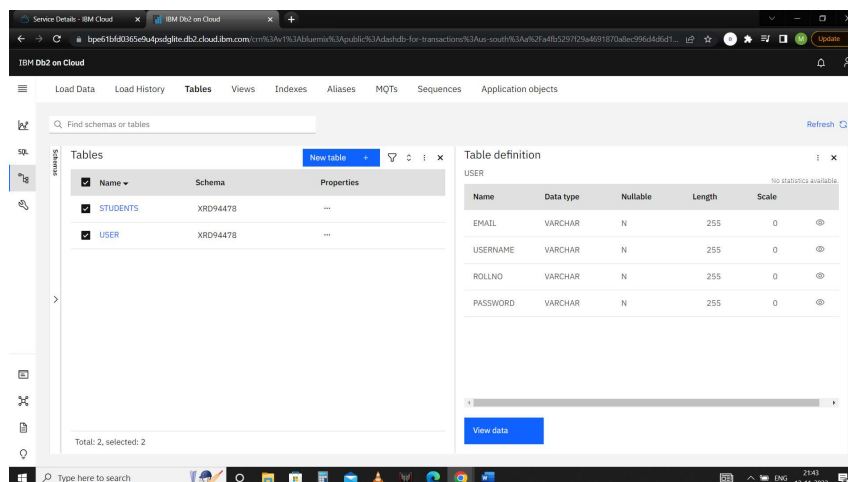
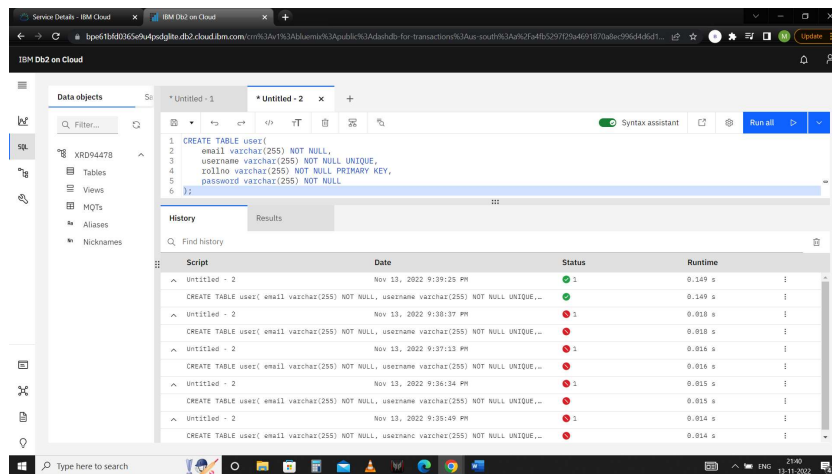


ASSIGNMENT - 2

FLASK APPLICATION INTEGRATION WITH DB2

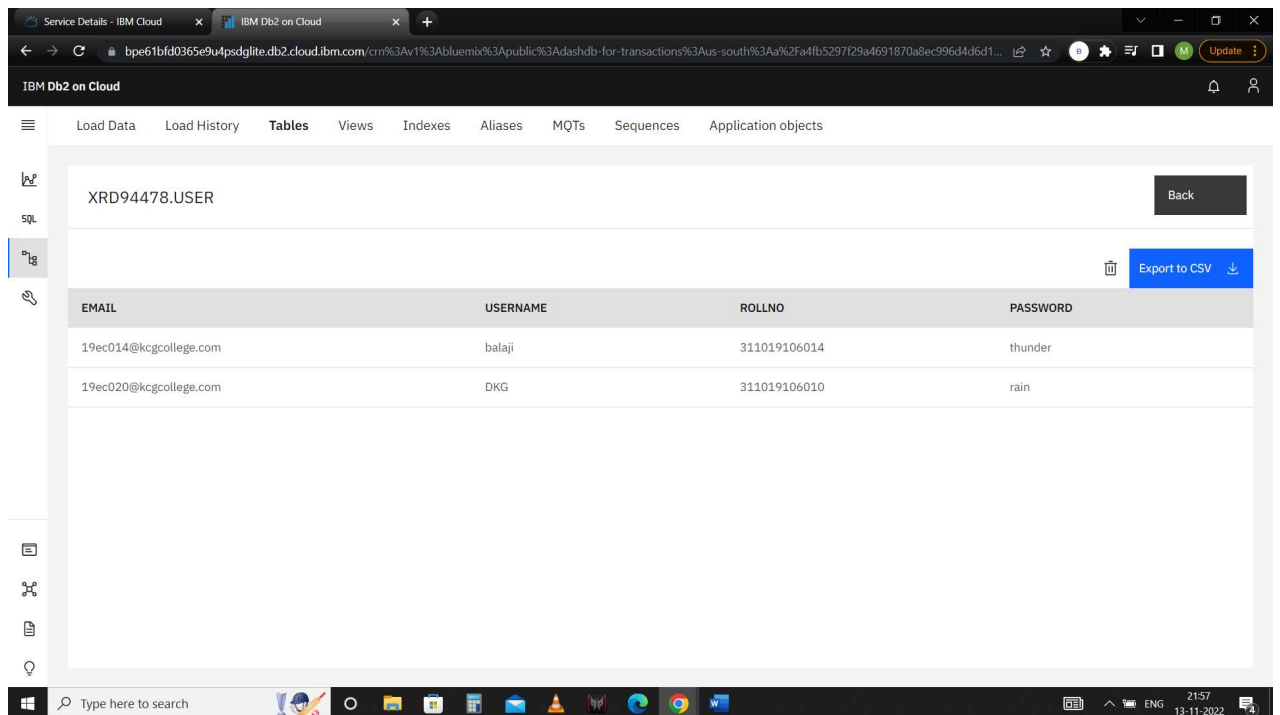
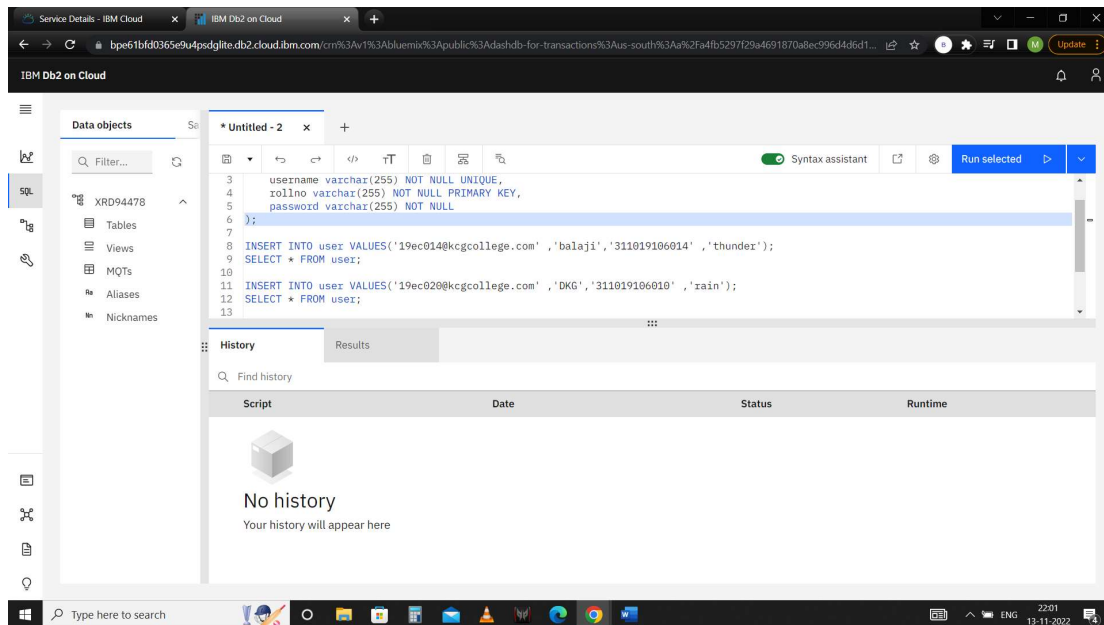
Student Name	M.S.Balaji
Student Register Number	311019106014
Maximum Marks	2 Marks

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



2. Perform UPDATE, and DELETE queries with the User table.

INSERT QUERY



UPDATE QUERY

The screenshot shows the IBM Db2 on Cloud SQL editor interface. The main window displays a script with the following SQL statements:

```
9 SELECT * FROM userz;
10
11 INSERT INTO user VALUES('19ec020@kcgcollege.com', 'DKG', '311019106010', 'rain');
12 SELECT * FROM userz;
13
14 UPDATE user SET PASSWORD= 'DON' WHERE USERNAME='DKG';
15 SELECT * FROM userz;
16
17
18
```

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

Script	Date	Status	Runtime
Untitled - 2	Nov 13, 2022 10:07:06 PM	1	0.005 s
SELECT * FROM userz			0.005 s
Untitled - 2	Nov 13, 2022 10:06:39 PM	1	0.022 s
UPDATE userz SET PASSWORD= 'DON' WHERE USERNAME='DKG'			0.007 s
SELECT * FROM userz			0.015 s
Untitled - 2	Nov 13, 2022 10:04:58 PM	2	0.034 s
UPDATE userz SET PASSWORD= 'book' WHERE USERNAME='DKG'			0.016 s

The screenshot shows the IBM Db2 on Cloud SQL editor interface displaying the results of the UPDATE query. The main window shows the table 'XRD94478.USER' with the following data:

EMAIL	USERNAME	ROLLNO	PASSWORD
19ec014@kcgcollege.com	balaji	311019106014	thunder
19ec020@kcgcollege.com	DKG	311019106010	DON

DELETE QUERY

The screenshot shows the IBM Db2 on Cloud console interface. On the left, a sidebar lists 'Data objects' including Tables, Views, MQTs, Aliases, and Nicknames. The main area displays a SQL script in a text editor. The script contains the following queries:

```
SELECT * FROM user;  
UPDATE user SET PASSWORD= 'DON' WHERE USERNAME='DKG';  
SELECT * FROM user;  
DELETE FROM user WHERE rollno = '311019106010';  
SELECT * FROM user;
```

Below the script, a 'History' tab shows a table of executed queries with columns: Script, Date, Status, and Runtime.

Script	Date	Status	Runtime
Untitled - 2	Nov 13, 2022 10:16:37 PM	2	0.005 s
DELETE FROM user WHERE rollno = '311019106010';			0.004 s
SELECT * FROM user;			0.001 s
Untitled - 2	Nov 13, 2022 10:16:09 PM	1	0.012 s
DELETE FROM user WHERE EMAIL = '19ec020@kcgcollege.com';			0.007 s
SELECT * FROM user;			0.005 s
Untitled - 2	Nov 13, 2022 10:13:14 PM	1	0.013 s

The screenshot shows the IBM Db2 on Cloud console interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The main area displays the results of a query for the 'XRD94478.USER' table. The results are shown in a table with columns: EMAIL, USERNAME, ROLLNO, and PASSWORD.

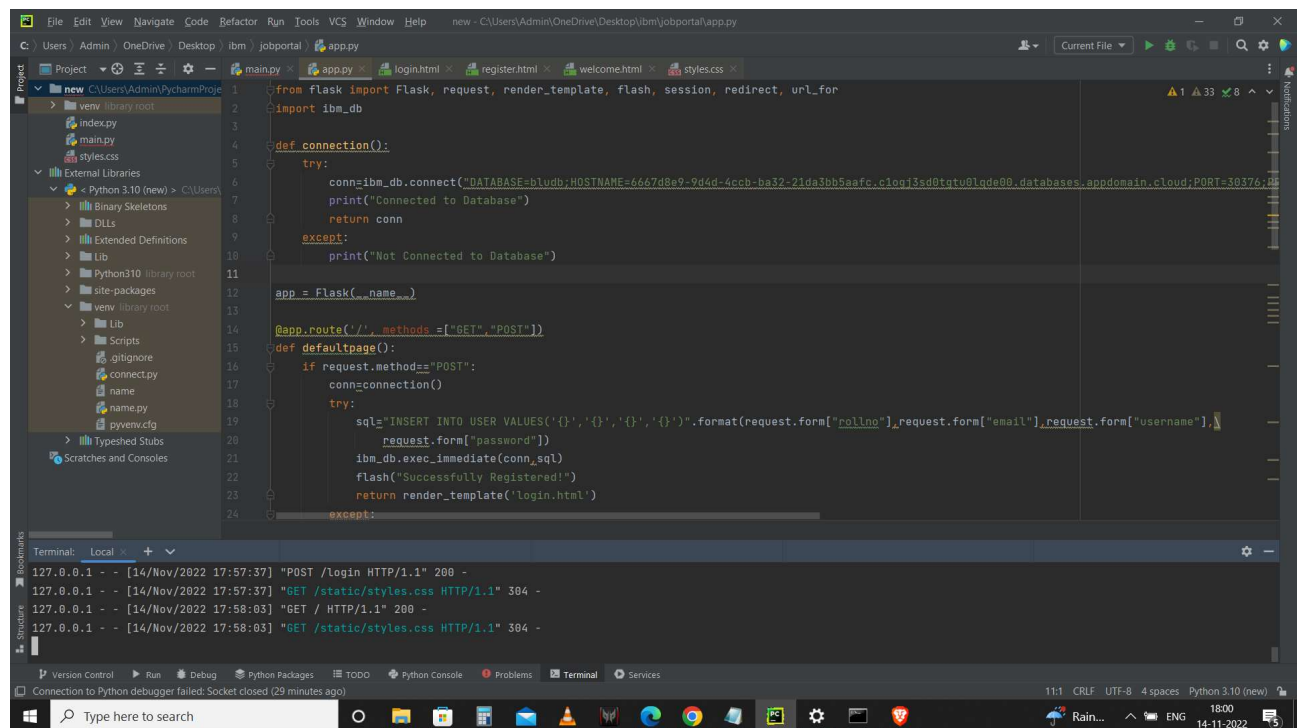
EMAIL	USERNAME	ROLLNO	PASSWORD
19ec020@kcgcollege.com	DKG	311019106010	DON

3. python code to DB2 &

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

CODE

app.py



```
1 from flask import Flask, request, render_template, flash, session, redirect, url_for
2 import ibm_db
3
4 def connection():
5     try:
6         conn=ibm_db.connect("DATABASE=ibmdb;HOSTNAME=6667d8e9-9d4d-4ccb-ba32-21da3bb5aafc.c1og13sd0tqtu0lqde00.databases.appdomain.cloud;PORT=30376;PL
7         print("Connected to Database")
8         return conn
9     except:
10        print("Not Connected to Database")
11
12 app = Flask(__name__)
13
14 @app.route('/', methods=["GET", "POST"])
15 def defaultpage():
16     if request.method=="POST":
17         conn=connection()
18         try:
19             sql="INSERT INTO USER VALUES('{},{},{},{})'.format(request.form["rollno"],request.form["email"],request.form["username"],
20                 request.form["password"])
21             ibm_db.exec_immediate(conn,sql)
22             flash("Successfully Registered!")
23             return render_template('login.html')
24         except:
```

Terminal: Local x + v

```
127.0.0.1 - - [14/Nov/2022 17:57:37] "POST /login HTTP/1.1" 200 -
127.0.0.1 - - [14/Nov/2022 17:57:37] "GET /static/styles.css HTTP/1.1" 304 -
127.0.0.1 - - [14/Nov/2022 17:58:03] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [14/Nov/2022 17:58:03] "GET /static/styles.css HTTP/1.1" 304 -
```

Version Control Run Debug Python Packages TODO Python Console Problems Terminal Services

Connection to Python debugger failed: Socket closed (29 minutes ago)

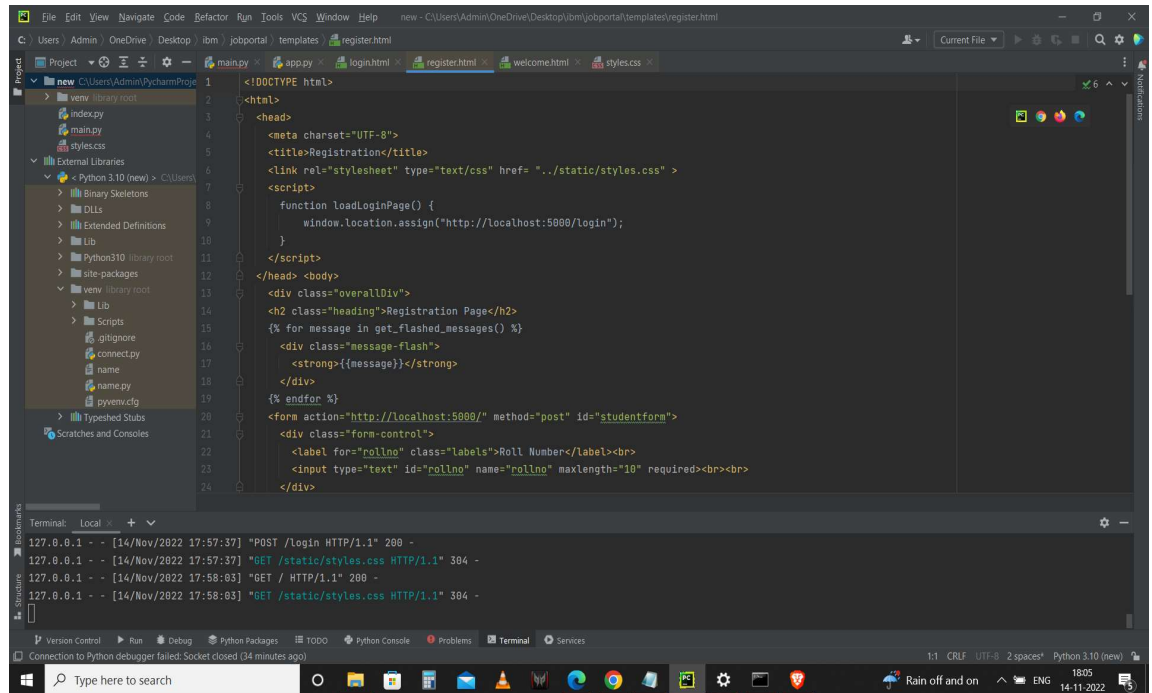
11:1 CRLF UTF-8 4 spaces Python 3.10 (new)

Type here to search

Rain... 1800 14-11-2022

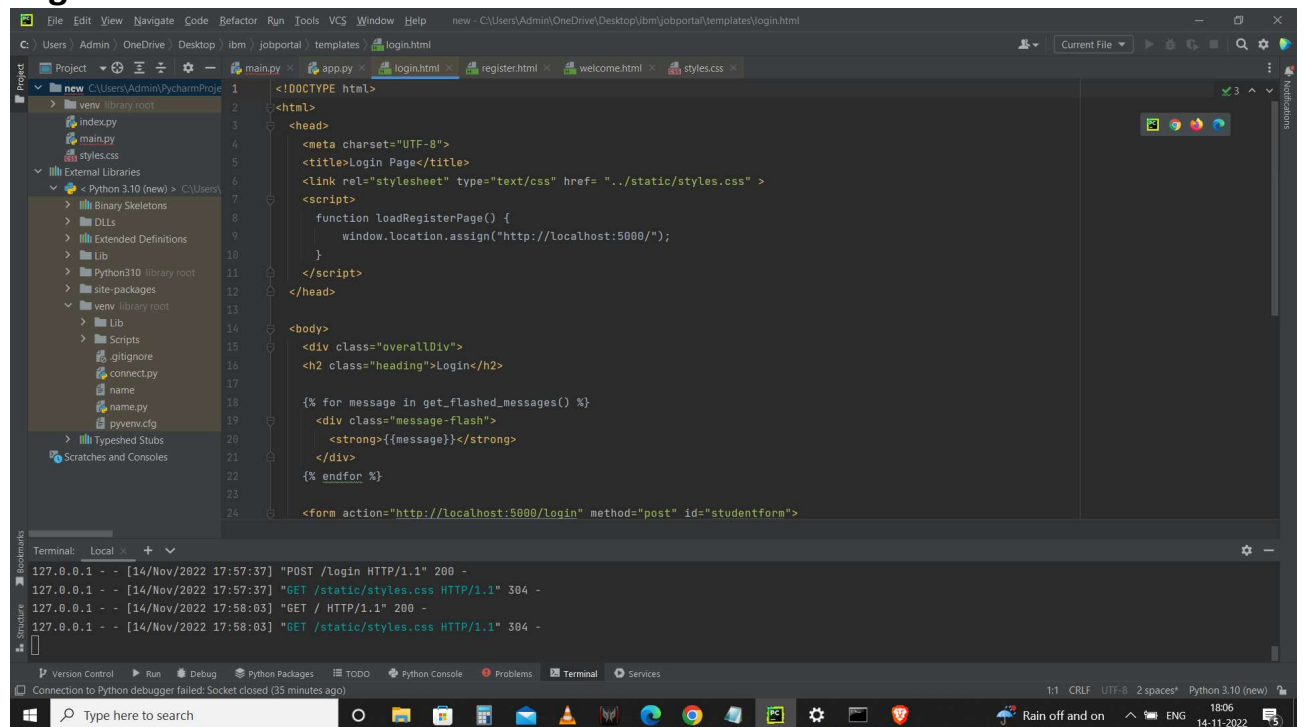
Templates

Register.html



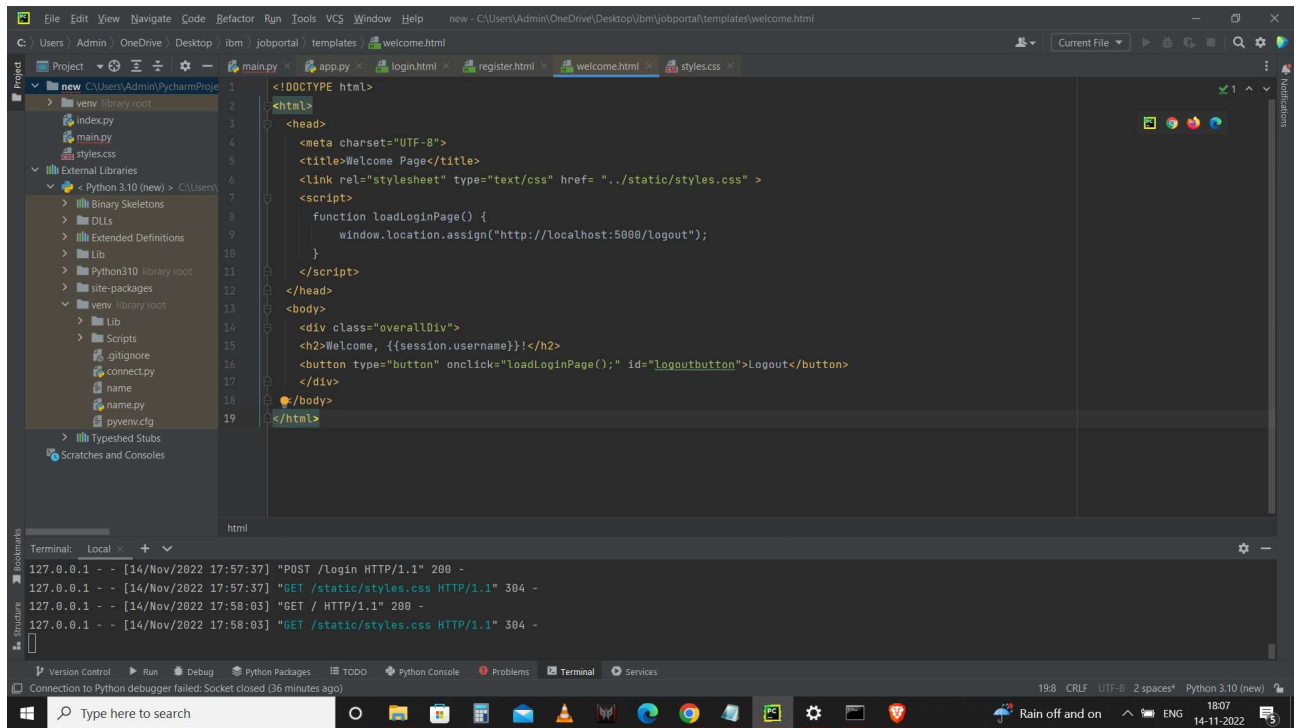
```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Registration</title>
<link rel="stylesheet" type="text/css" href=" ../static/styles.css" >
<script>
function loadLoginPage() {
window.location.assign("http://localhost:5000/login");
}
</script>
</head>
<body>
<div class="overallDiv">
<h2 class="heading">Registration Page</h2>
{% for message in get_flashed_messages() %}
<div class="message-flash">
<strong>{{message}}</strong>
</div>
{% endfor %}
<form action="http://localhost:5000/" method="post" id="studentform">
<div class="form-control">
<label for="rollno" class="labels">Roll Number</label><br>
<input type="text" id="rollno" name="rollno" maxlength="10" required><br><br>
</div>
</body>
</html>
```

Login.html

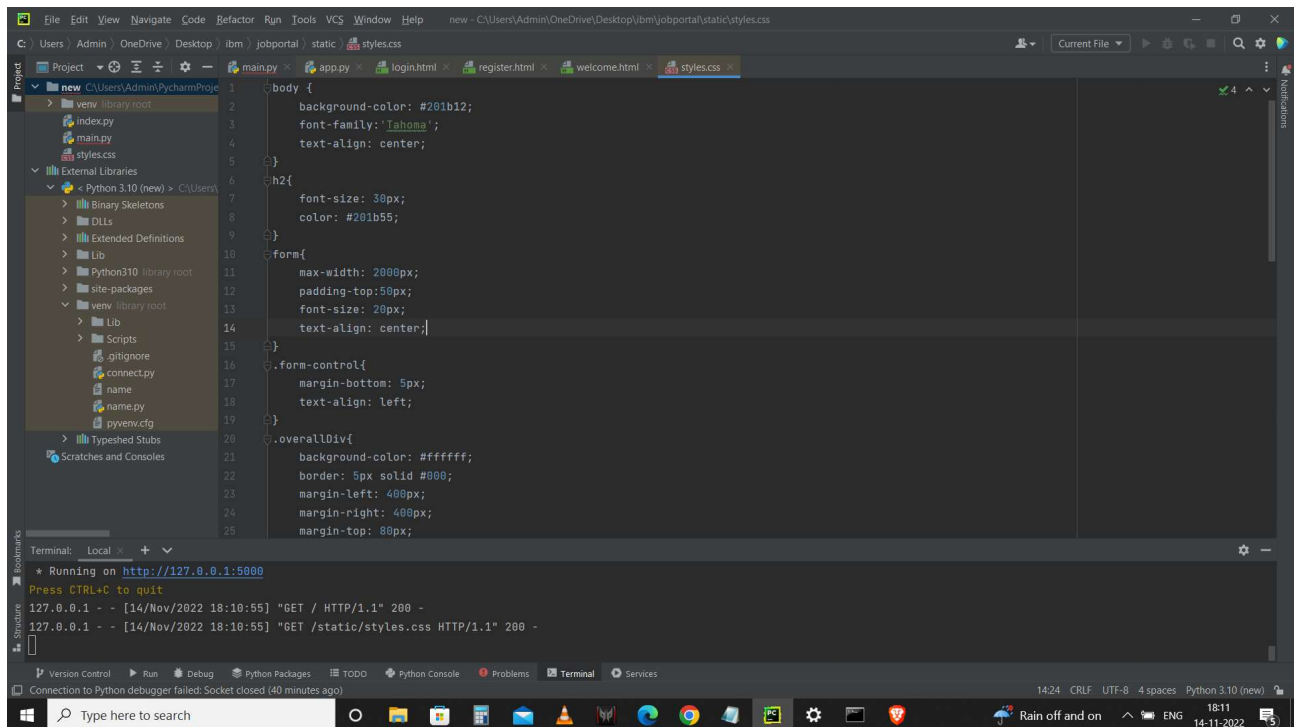


```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Login Page</title>
<link rel="stylesheet" type="text/css" href=" ../static/styles.css" >
<script>
function loadRegisterPage() {
window.location.assign("http://localhost:5000/");
}
</script>
</head>
<body>
<div class="overallDiv">
<h2 class="heading">Login</h2>
{% for message in get_flashed_messages() %}
<div class="message-flash">
<strong>{{message}}</strong>
</div>
{% endfor %}
<form action="http://localhost:5000/login" method="post" id="studentform">
</form>
</body>
</html>
```

Welcome.html

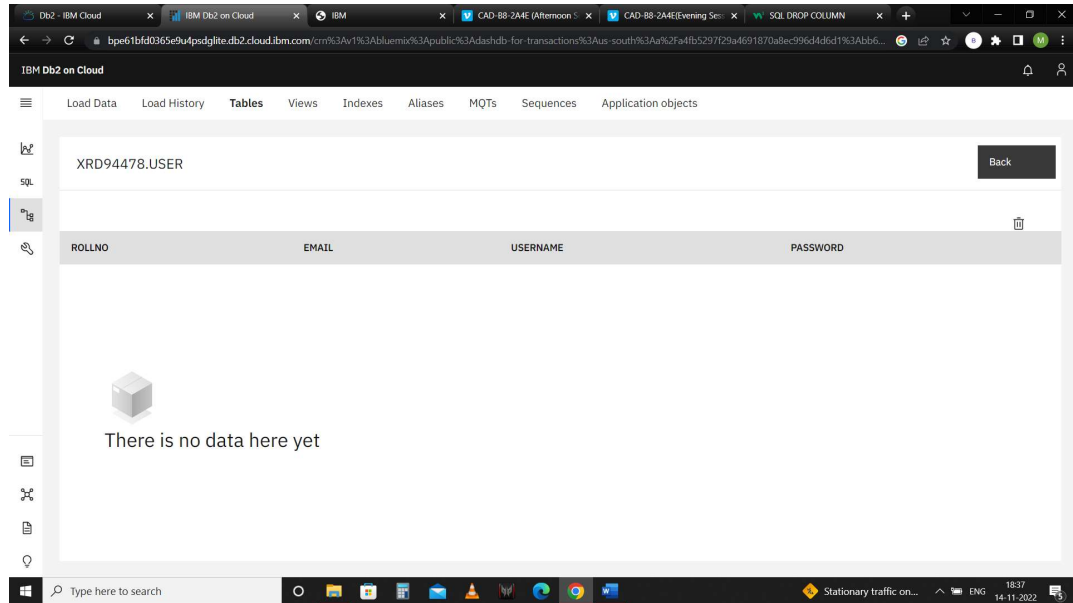


Static.css

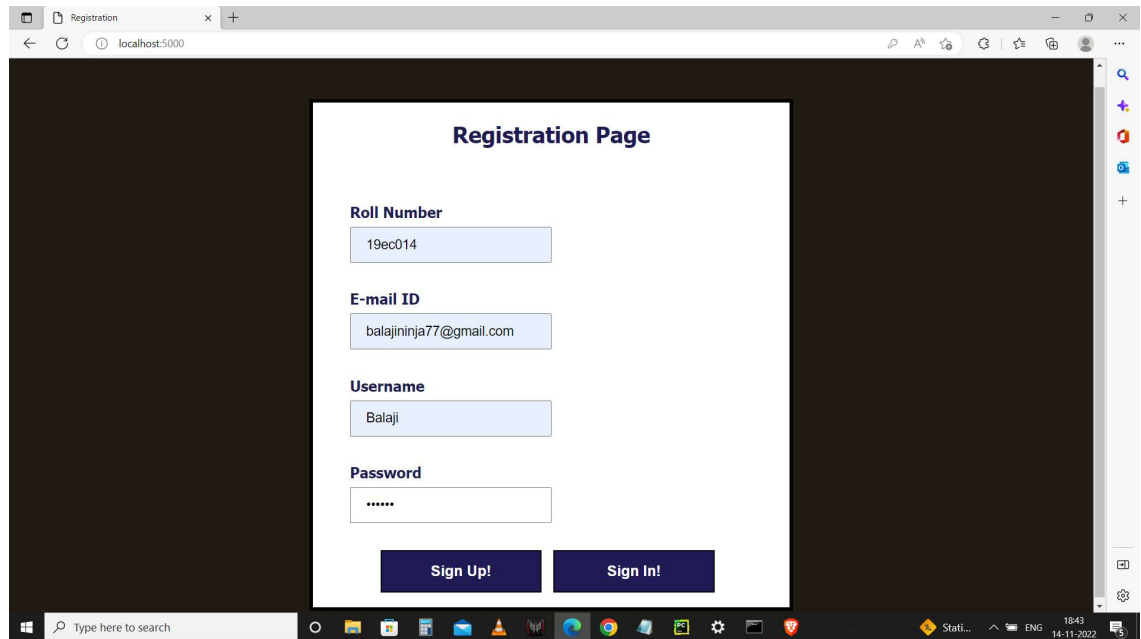


OUTPUT

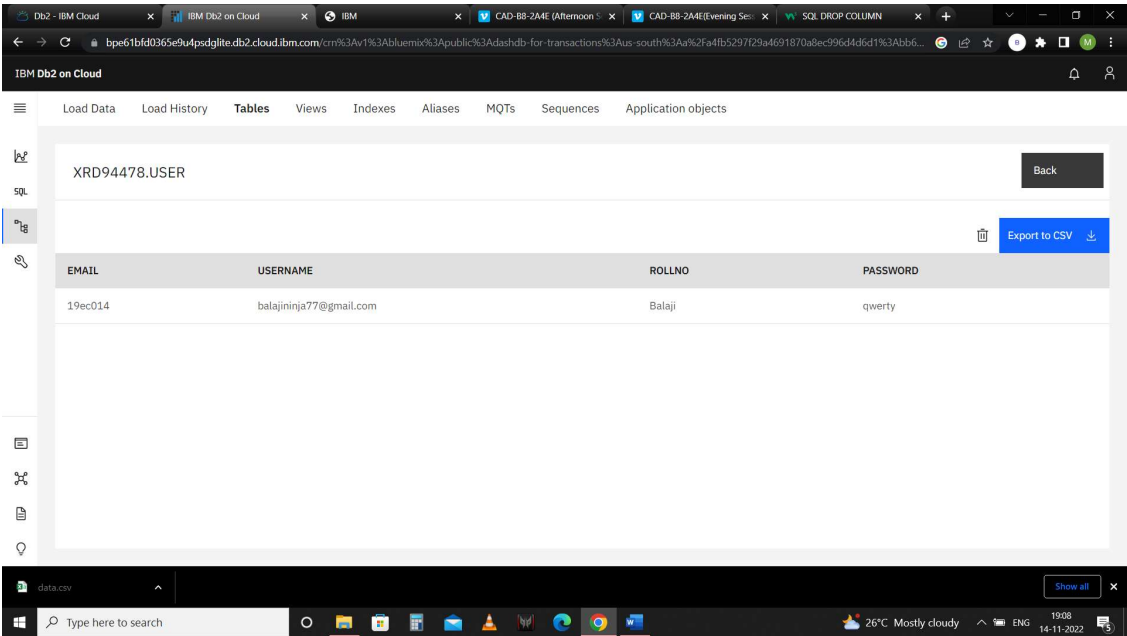
Empty table



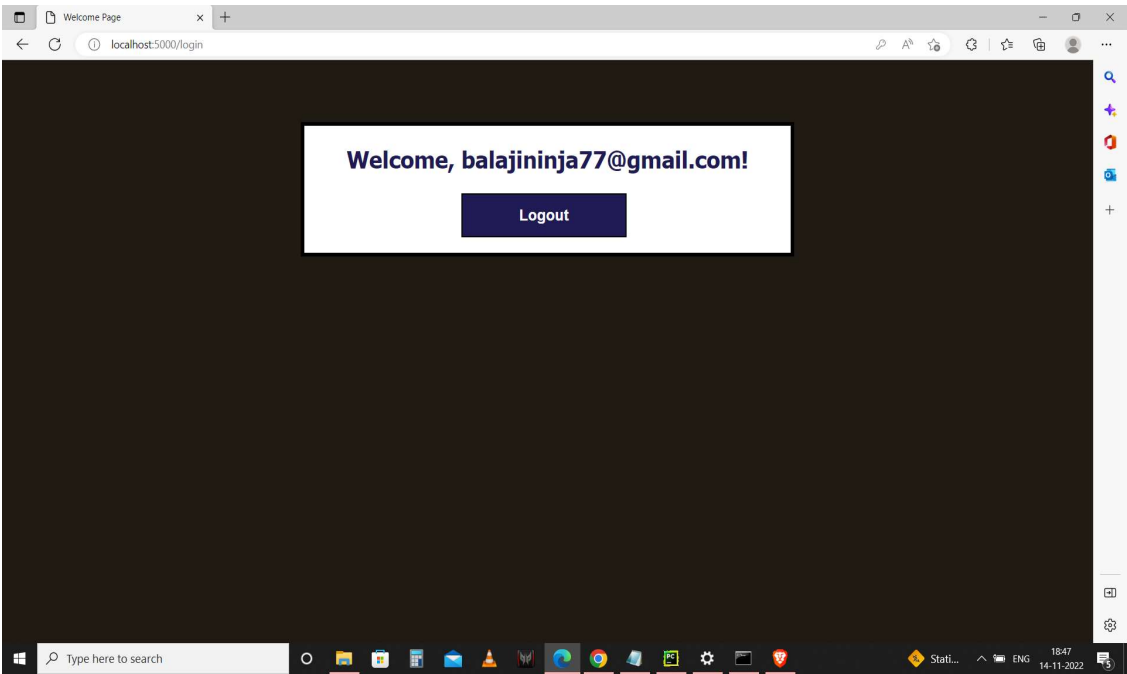
Registration page



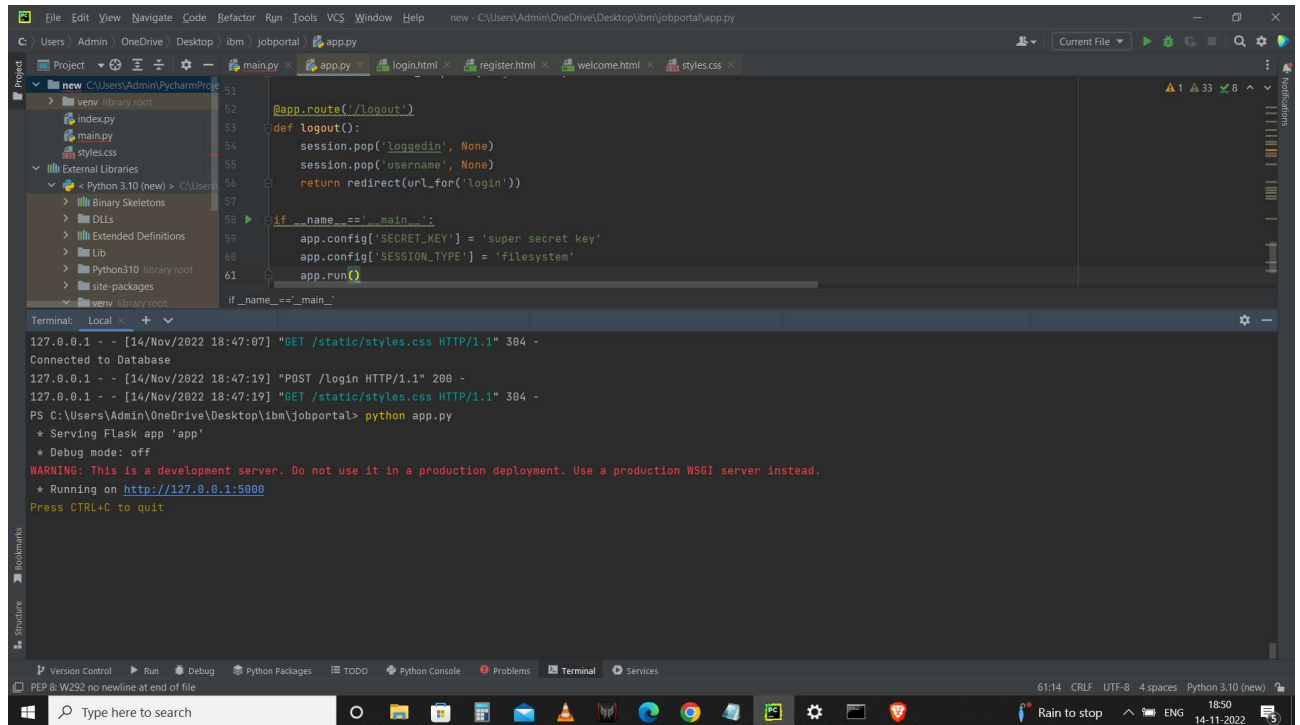
Database updated upon registration



Welcome Page Rendered on Successful Login



Terminal



```
File Edit View Navigate Code Refactor Run Tools VCS Window Help new - C:\Users\Admin\OneDrive\Desktop\ibm\jobportal\app.py
C:\Users\Admin\OneDrive\Desktop\ibm\jobportal\app.py
Project main.py app.py login.html register.html welcome.html styles.css
venv library root
index.py
main.py
styles.css
External Libraries
Python 3.10 (new) > C:\Users\Admin\OneDrive\Desktop\ibm\jobportal\venv
Binary Skeletons
DLLs
Extended Definitions
Lib
Python310 library root
site-packages
venv library root
51
52 @app.route('/logout')
53 def logout():
54     session.pop('loggedin', None)
55     session.pop('username', None)
56     return redirect(url_for('login'))
57
58 if __name__ == '__main__':
59     app.config['SECRET_KEY'] = 'super secret key'
60     app.config['SESSION_TYPE'] = 'filesystem'
61     app.run()
if __name__ == '__main__':

Terminal: Local x + v
127.0.0.1 - - [14/Nov/2022 18:47:07] "GET /static/styles.css HTTP/1.1" 304 -
Connected to Database
127.0.0.1 - - [14/Nov/2022 18:47:19] "POST /login HTTP/1.1" 200 -
127.0.0.1 - - [14/Nov/2022 18:47:19] "GET /static/styles.css HTTP/1.1" 304 -
PS C:\Users\Admin\OneDrive\Desktop\ibm\jobportal> python app.py
* Serving Flask app 'app'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
Press CTRL+C to quit

Version Control Run Debug Python Packages TODO Python Console Problems Terminal Services
PEP 8: W292 no newline at end of file
61:14 CRLF UTF-8 4 spaces Python 3.10 (new)
Type here to search Rain to stop ENG 18:50 14-11-2022
```