ASSIGNMENT 2

Student Name	Anupriya S
Student Roll Number	820519205004
Maximum Marks	2 Marks

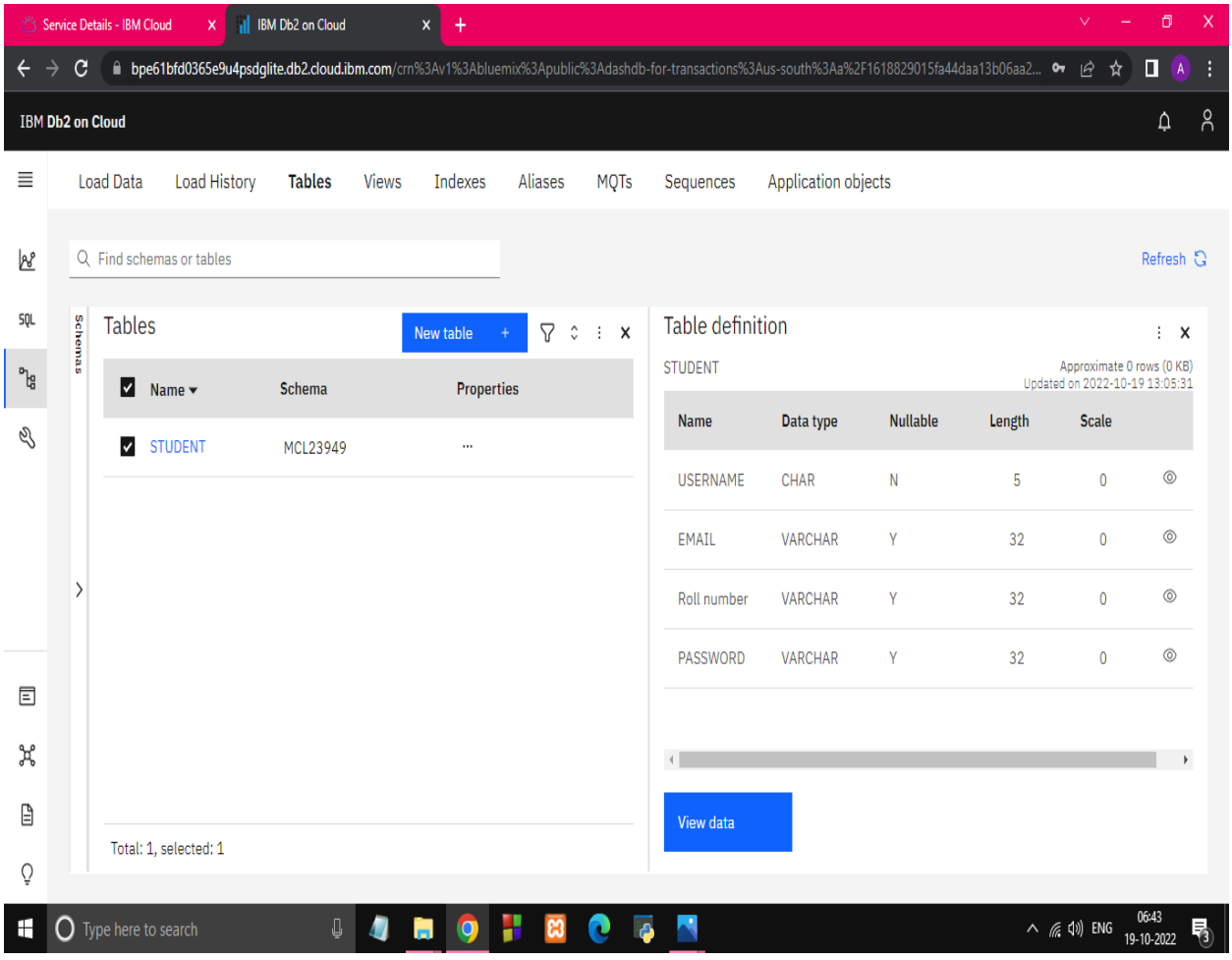
Questions:

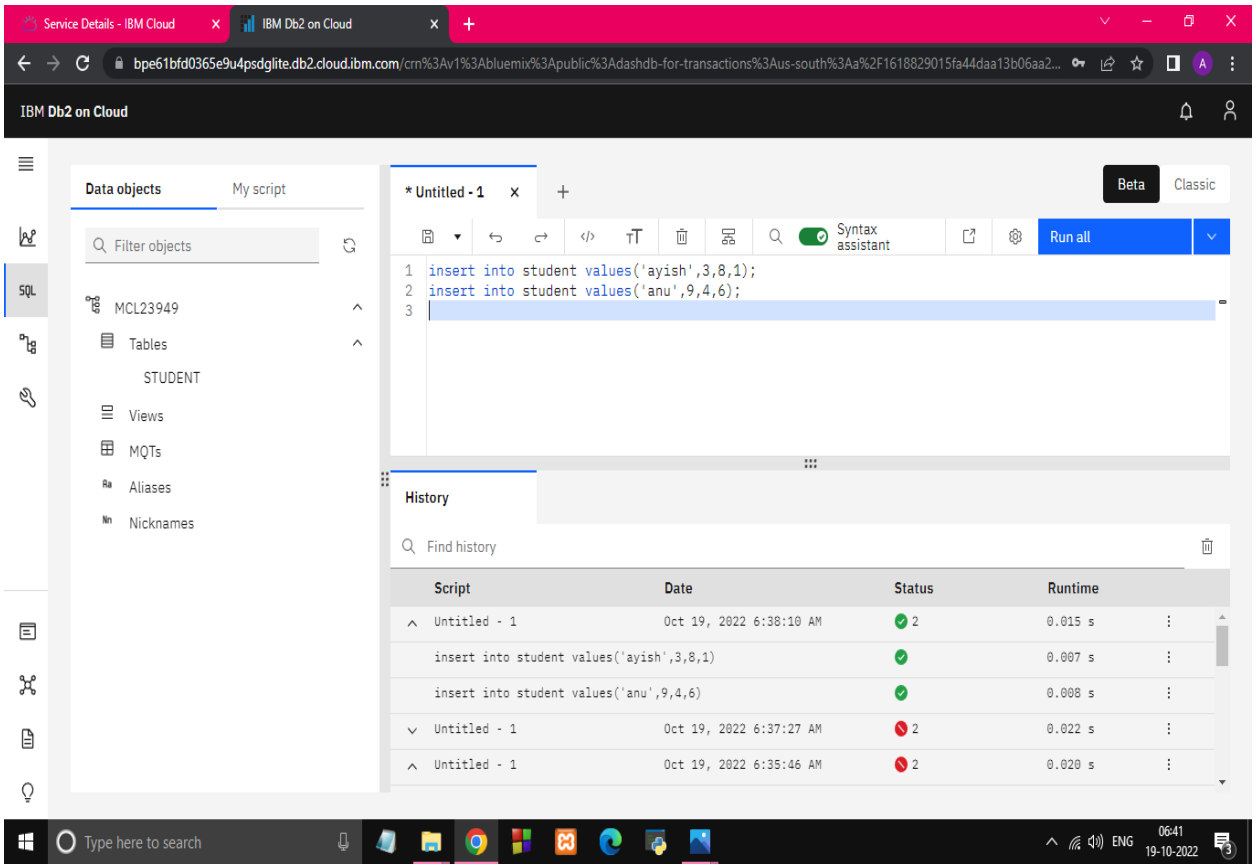
Create User table with user email, username, roll number, password.

1. Perform UPDATE, DELETE Queries with user table.
2. Connect python code to db2.
3. 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.

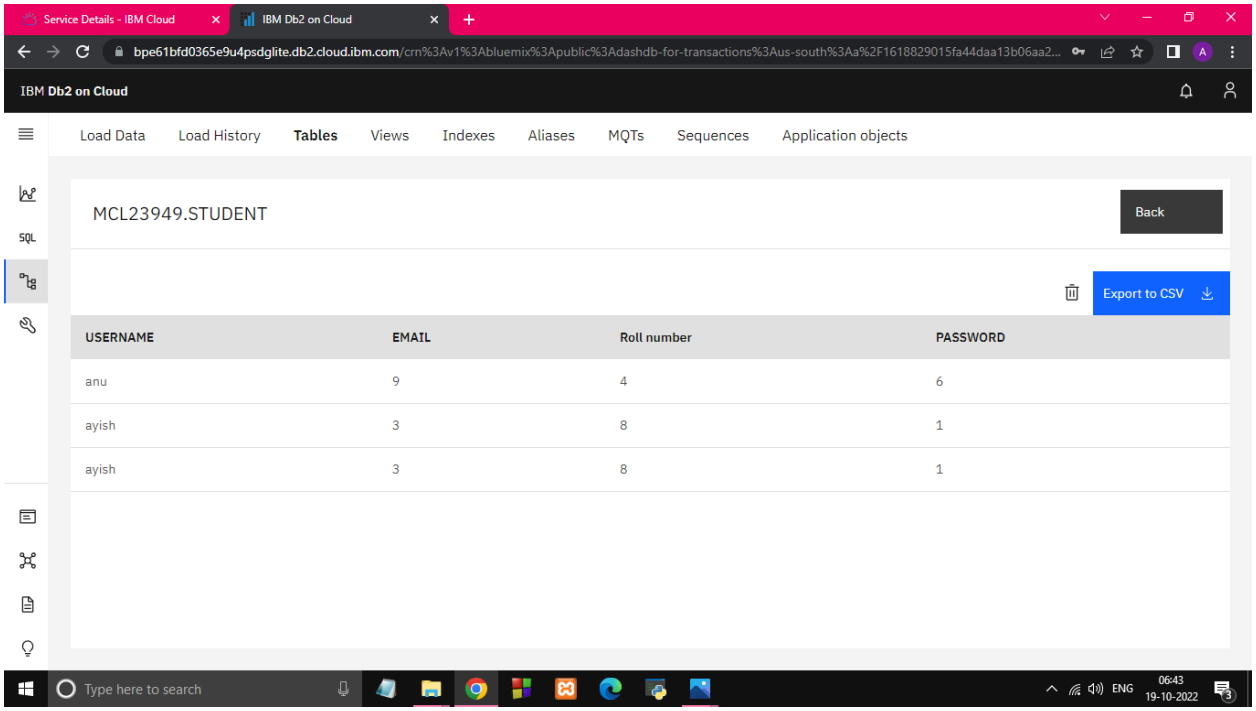
Solutions:

1. Creating user table with user email, username, roll number, password.



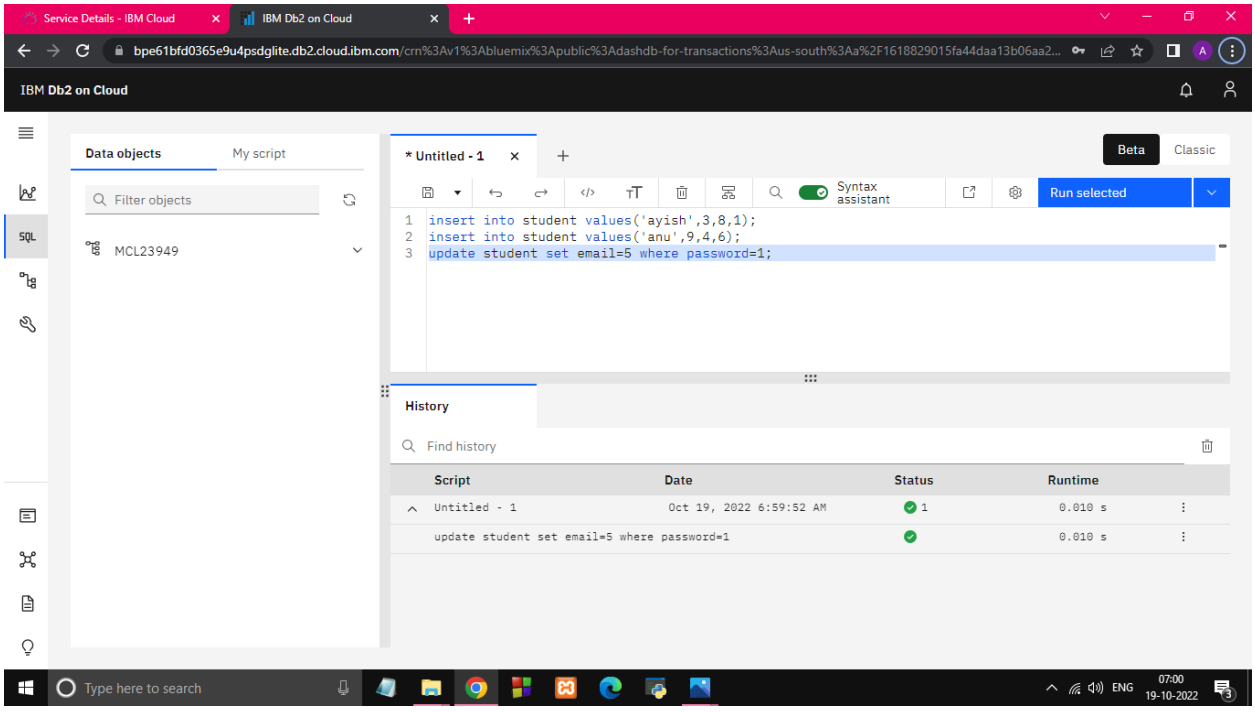

Service Details - IBM Cloud
IBM Db2 on Cloud
bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F1618829015fa44daa13b06aa2...
IBM Db2 on Cloud
Data objects
My script
Filter objects
MCL23949
Tables
STUDENT
Views
MQTs
Aliases
Nicknames
* Untitled - 1
Beta
Classic
Syntax assistant
Run all
1 insert into student values('ayish',3,8,1);
2 insert into student values('anu',9,4,6);
3
History
Find history
Script
Date
Status
Runtime
Untitled - 1
Oct 19, 2022 6:38:10 AM
2
0.015 s
insert into student values('ayish',3,8,1)
0.007 s
insert into student values('anu',9,4,6)
0.008 s
Untitled - 1
Oct 19, 2022 6:37:27 AM
2
0.022 s
Untitled - 1
Oct 19, 2022 6:35:46 AM
2
0.020 s
Type here to search
ENG
06:41
19-10-2022

Output :

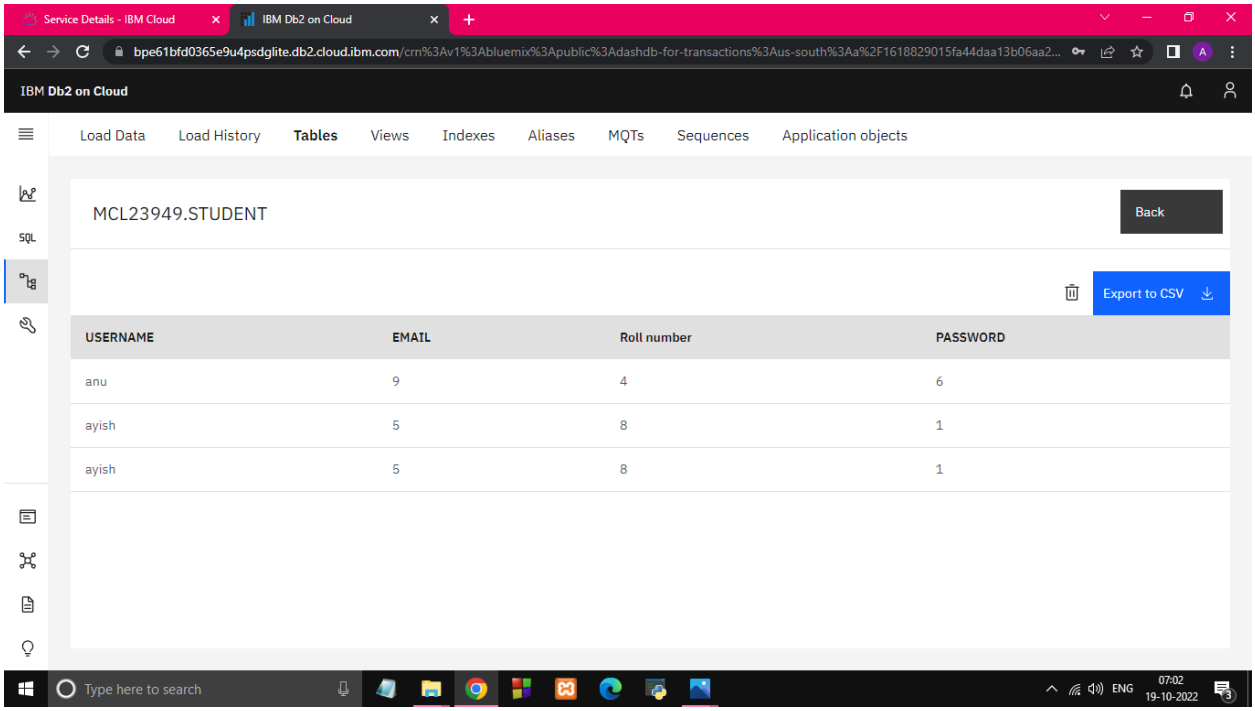


2. Performing UPDATE, DELETE Queries with user table:

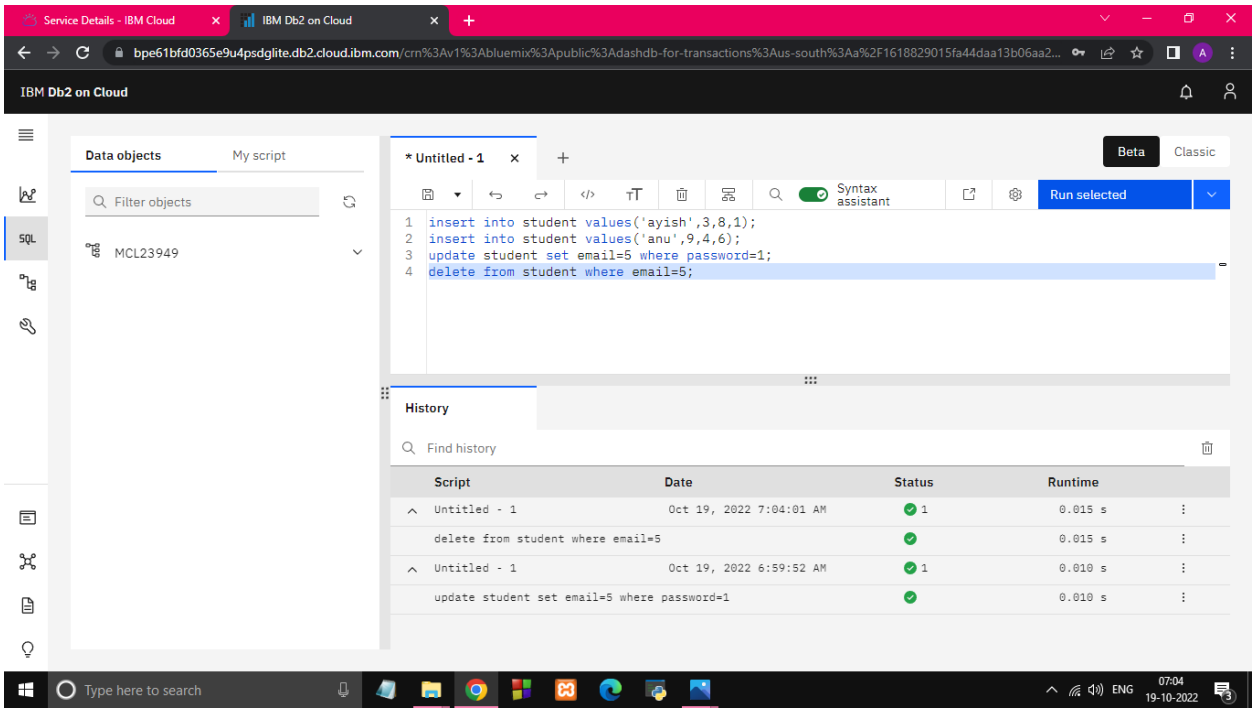
UPDATE:



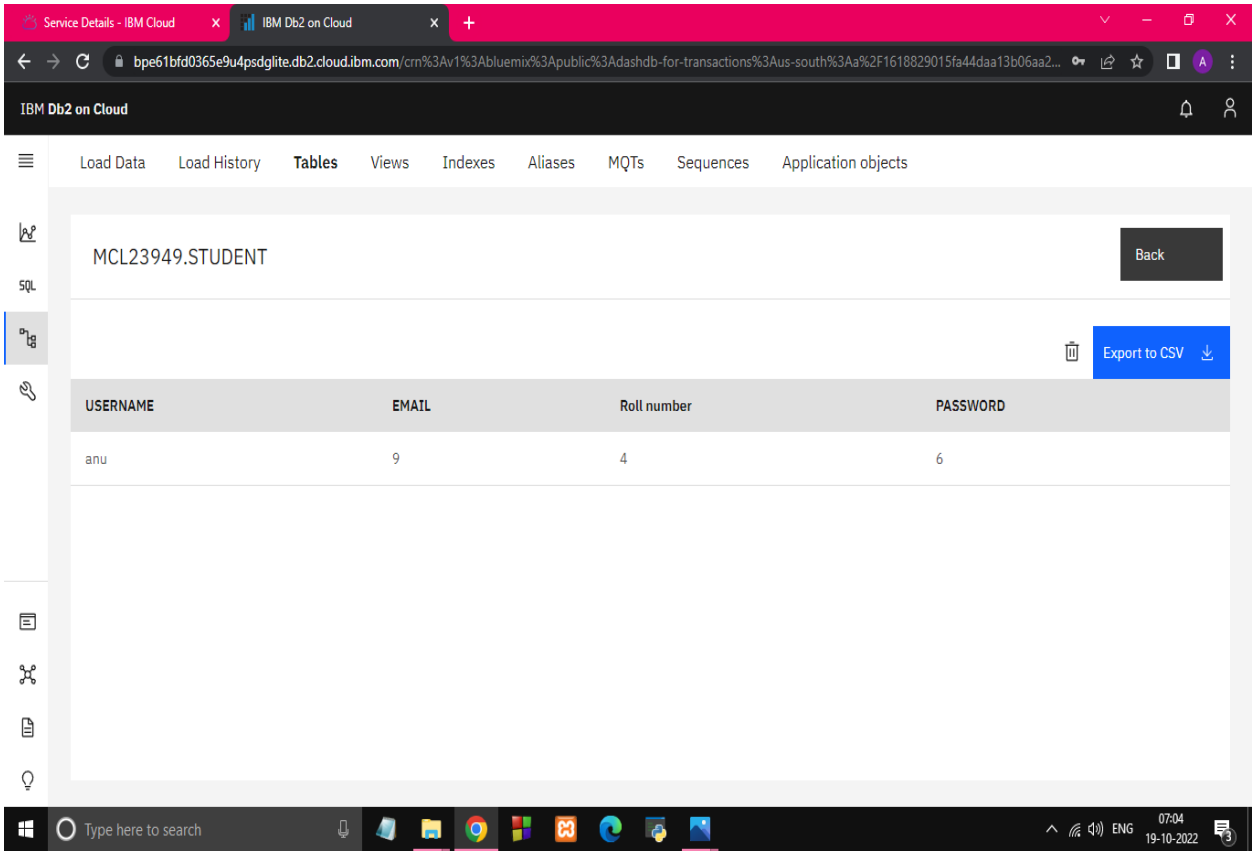
OUTPUT:



DELETE:



OUTPUT:



3. Connect python code to db2:

```
import  ibm_db
conn=
ibm_db.connect("DATABASE=bludb;HOSTNAME=9938aec0-8105-433e-8bf9-
0fbb7e483086.clogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORt=32459;SECURITY=SSl;SSL
ServerCertificate=DigiCertGlobalRoot.crt;UID=mcl23949;PWD=dmUiv2o6zjDMw0Ea",)
print(conn)
print(“connection successful…”)
```

4. Creating a flask app with registration page, login page and welcome page:

```
# Store this code in 'app.py' file

from flask import Flask, render_template, request, redirect, url_for, session
import ibm_db
import re
conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=9938aec0-8105-433e-8bf9-
0fbb7e483086.clogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORt=32459;SECURITY=SSl;SSL
ServerCertificate=DigiCertGlobalRoot.crt;UID=mcl23949;PWD=dmUiv2o6zjDMw0Ea",)

app = Flask(__name__)
```

```
app.secret_key='a'
conn = ibm_db.connect()
@app.route('/')
@app.route('/login', methods =['GET', 'POST'])
def login():
	msg = ''
	if request.method == 'POST' and 'username' in request.form and 'password' in
request.form:
		username = request.form['username']
		password = request.form['password']
		sql=('SELECT * FROM users WHERE username = % s AND password = % s',
(username, 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.fet_assoc(stmt)
		print(account)
		if account:
			session['loggedin'] = True
			session['id'] = account['id']
			session['username'] = account['username']
			msg = 'Logged in successfully !'
			return render_template('index.html', msg = msg)
		else:
			msg = 'Incorrect username / password !'
	return render_template('login.html', msg = msg)

@app.route('/logout')
def logout():
	session.pop('loggedin', None)
	session.pop('id', None)
	session.pop('username', None)
	return redirect(url_for('login'))

@app.route('/register', methods =['GET', 'POST'])
def register():
	msg = ''
	if request.method == 'POST' and 'username' in request.form and 'password' in
request.form and 'email' in request.form :
		username = request.form['username']
		password = request.form['password']
```

```
                email = request.form['email']
                sql=('SELECT * FROM users WHERE username = % s AND password = % s',
(username, password, ))
                stmt = ibm_db.prepare(conn,sql)
                ibm_db.bind_param(stmt,1,username)
        ibm_db.execute(stmt)
        account = ibm_db.fet_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 characters and numbers !'
                elif not username or not password or not email:
                        msg = 'Please fill out the form !'
                else:
                        insert_sql=('INSERT INTO accounts VALUES (NULL, % s, % s, % s)',
(username, password, email, ))
                        prep_stmt = ibm_db.prepare(conn,insert_sql)
                ibm_db.bind_param(prep_stmt,1,username)
        ibm_db.bind_param(stmt,2,password)
        ibm_db.bind_param(stmt,3,email)
        ibm_db.execute(prep_stmt)
                        msg = 'You have successfully registered !'
        elif request.method == 'POST':
                msg = 'Please fill out the form !'
        return render_template('register.html', msg = msg)
  if __name__=='__main__':
    app.run(host='0.0.0.0')
```

register.html:

```
<html>
        <head>
                <meta charset="UTF-8">
                <title> Register </title>
                <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">

        </head>
        <body style="background-color:powderblue;"></br></br></br></br></br>
                <div align="center">
```

```
                <div align="center" class="border">
                        <div class="header">
                                <h1 class="word">Register</h1>
                        </div></br></br></br>
                        <h2 class="word">
                                <form action="{{ url_for('register') }}" method="post">
                                        <input id="username" name="username" type="text"
placeholder="Enter Your Username" class="textbox"/></br></br>
                                        <input id="password" name="password"
type="password" placeholder="Enter Your Password" class="textbox"/></br></br>
                                        <input id="email" name="email" type="text"
placeholder="Enter Your Email ID" class="textbox"/></br></br>
                                        <input type="submit" class="btn" value="Sign
Up"></br>
                                </form>
                        </h2>
                        <p class="bottom">Already have an account? <a class="bottom"
href="{{url_for('login')}}"> Sign In here</a></p>
                </div>
                </div>
        </body>
</html>
```

login.html:

```
<html>
        <head>
                <meta charset="UTF-8">
                <title> Login </title>
                <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">
        </head>
        <body></br></br></br></br></br>
                <div align="center">
                <div align="center" class="border">
                        <div class="header">
                                <h1 class="word">Login</h1>
                        </div></br></br></br>
                        <h2 class="word">
                                <form action="{{ url_for('login') }}" method="post">
                                        <input id="username" name="username" type="text"
placeholder="Enter Your Username" class="textbox"/></br></br>
```

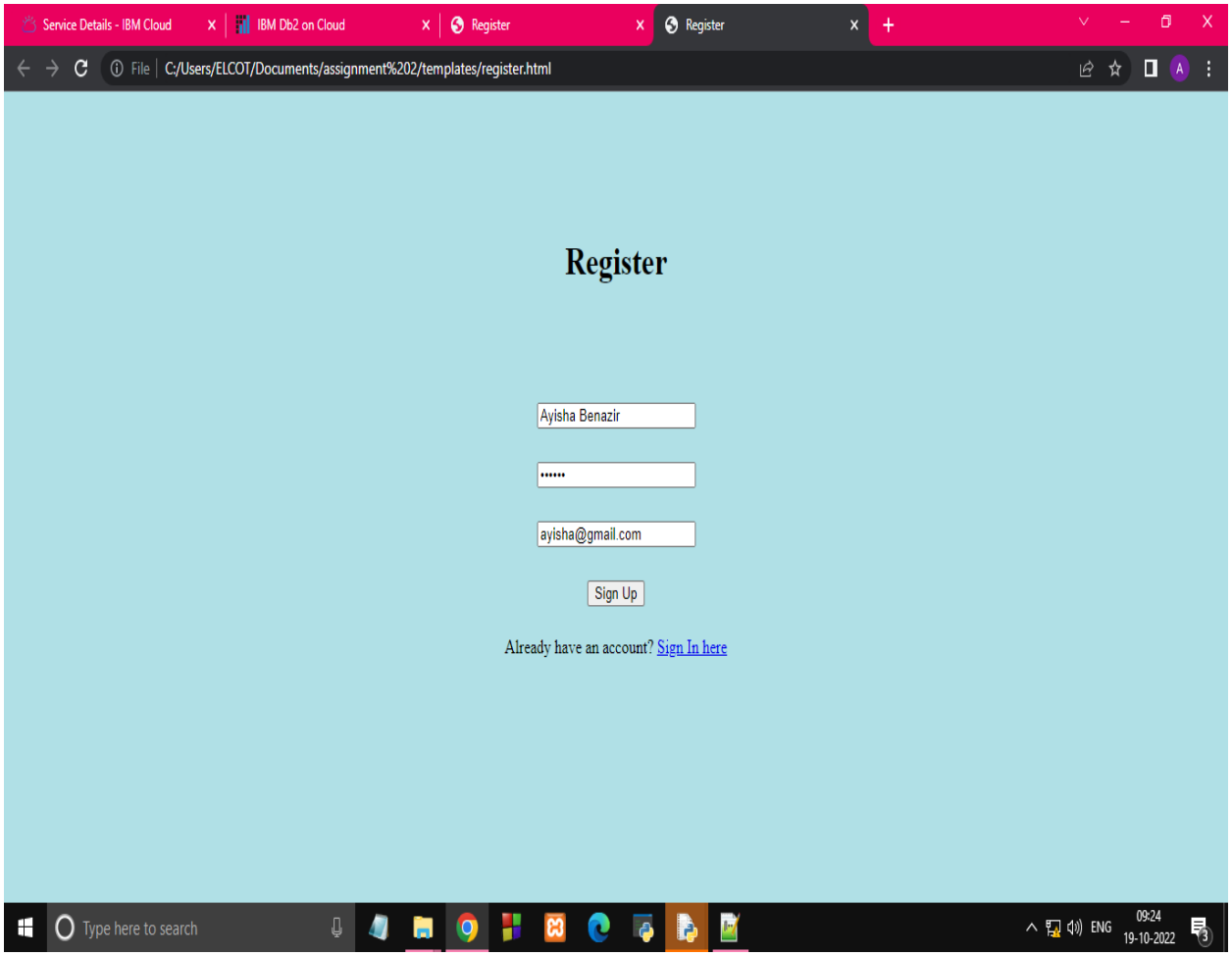
```
                                        <input id="password" name="password"
type="password" placeholder="Enter Your Password" class="textbox"/></br></br></br>
                                        <input type="submit" class="btn" value="Sign
In"></br></br>
                                </form>
                        </h2>
                        <p class="bottom">Don't have an account? <a class="bottom"
href="{{url_for('register')}}"> Sign Up here</a></p>
                </div>
                </div>
        </body>
</html>
```

Index.html:

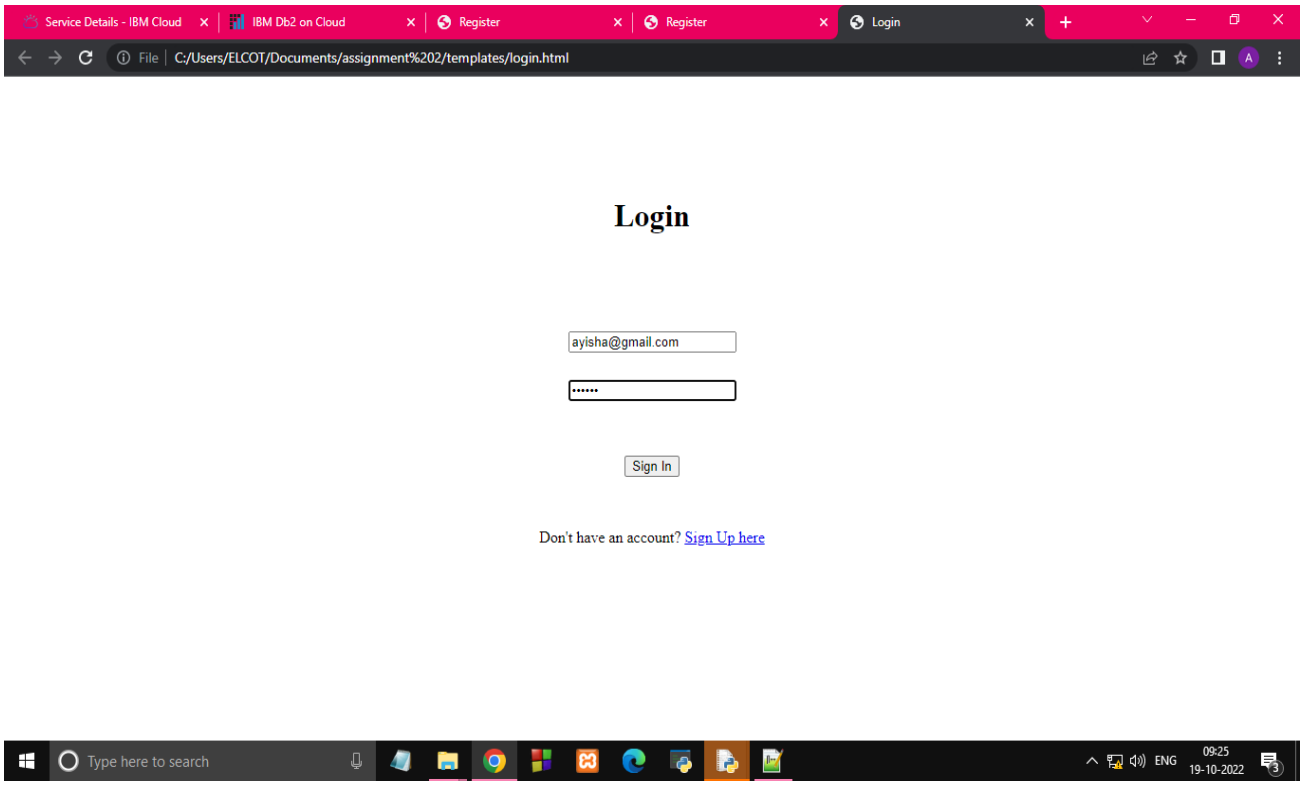
```
<html>
        <head>
                <meta charset="UTF-8">
                <title> Index </title>
                <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">

        </head>
        <body></br></br></br></br></br>
                <div align="center">
                <div align="center" class="border">
                        <div class="header">
                                <h1 class="word">Index</h1>
                        </div></br></br></br>
                                <h1 class="bottom">
                                        Hi {{session.username}}!!</br></br> Welcome to the
index page...
                                </h1></br></br></br>
                                <a href="{{ url_for('logout') }}" class="btn">Logout</a>
                </div>
                </div>
        </body>
</html>
```

OUTPUT:

Register page:


Service Details - IBM Cloud
IBM Db2 on Cloud
Register
Register
File | C:/Users/ELCOT/Documents/assignment%202/templates/register.html
Register
Ayisha Benazir
ayisha@gmail.com
Sign Up
Already have an account? Sign In here
Type here to search
ENG
09:24
19-10-2022

login page:



Welcome page: