

Assignment -2

Assignment Date	28 September 2022
Student Name	Ms.Mukil I
Student Roll Number	820419104037
Maximum Marks	2 Marks

Question-1:

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

Solution:

The screenshot shows the IBM Db2 on Cloud web interface. The 'Schemas' tab is active, displaying a list of schemas. The 'BLN00610' schema is selected, and the 'Users' table is visible in the 'Tables' list. The 'Users' table has the following properties:

Name	Schema	Properties
USERS	BLN00610	...

The screenshot shows the IBM Db2 on Cloud web interface. The 'Tables' tab is active, displaying a list of tables. The 'USERS' table is selected, and the 'Table definition' panel is open. The table has the following definition:

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

The screenshot shows the IBM Db2 on Cloud console. On the left, the 'Data objects' panel shows a table named 'SHQ81471'. The main area displays the execution of two SQL insert statements. The 'History' tab at the bottom shows the execution details for the script 'Untitled - 1'.

Script	Date	Status	Runtime
Untitled - 1	Oct 1, 2022 6:30:51 PM	✓ 2	0.012 s
insert into userinfo values('raji','raji123@gmail.com','raji123',1);		✓	0.007 s
insert into userinfo values('charu','charu78@gmail.com','cha123',2);		✓	0.005 s

The screenshot shows the IBM Db2 on Cloud console displaying the contents of the 'SHQ81471.USERINFO' table. The table has four columns: USERNAME, MAIL, PASSWORD, and ROLLNUMBER. The data is as follows:

USERNAME	MAIL	PASSWORD	ROLLNUMBER
charu	charu78@gmail.com	cha123	2
raji	raji123@gmail.com	raji123	1

Question-2:

Perform UPDATE,DELETE Queries with user table

Solution:

Update

IBM Db2 on Cloud interface showing a SQL script editor and a history table.

Data objects

Filter objects

SHQ81471

Script

```
1 update userinfo
2 set username='raji',mail='raji678@gmail.com'
3 where rollnumber=1;
```

History

Script	Date	Status	Runtime
Untitled - 2	Oct 1, 2022 6:46:57 PM	1	0.019 s
update userinfo set username='raji',mail='raji678@gmail.com' where rollnumbe...			0.019 s
Untitled - 2	Oct 1, 2022 6:45:30 PM	1	0.014 s
Untitled - 1	Oct 1, 2022 6:38:51 PM	2	0.012 s

IBM Db2 on Cloud interface showing a table view of the SHQ81471.USERINFO table.

SHQ81471.USERINFO

Export to CSV

USERNAME	MAIL	PASSWORD	ROLLNUMBER
charu	charu78@gmail.com	cha123	2
raji	raji678@gmail.com	raji678	1

Delete

IBM Db2 on Cloud interface showing a SQL script editor and a history table.

Data objects

Filter objects

SHQ81471

Script

```
1 delete from userinfo where username='charu';
```

History

Script	Date	Status	Runtime
Untitled - 3	Oct 1, 2022 6:51:11 PM	1	0.006 s
delete from userinfo where username='charu';			0.006 s
Untitled - 2	Oct 1, 2022 6:46:57 PM	1	0.019 s
update userinfo set username='raji',mail='raji678@gmail.com' where rollnumb...			0.019 s
Untitled - 2	Oct 1, 2022 6:45:30 PM	1	0.014 s

IBM Db2 on Cloud

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

SHQ81471.USERINFO

Back

Export to CSV

USERNAME	MAIL	PASSWORD	ROLLNUMBER
raji	raji678@gmail.com	rajiraji	1

Question-3:

Connect python code to db2.

Solution:

```
conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=9938aec0-8105-433e-8bf9-0fbb7e483086.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32459;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=bln00610;PWD=sGduNe7FvZR2LzTo", '', '')
```

sheep-logo

Register Form

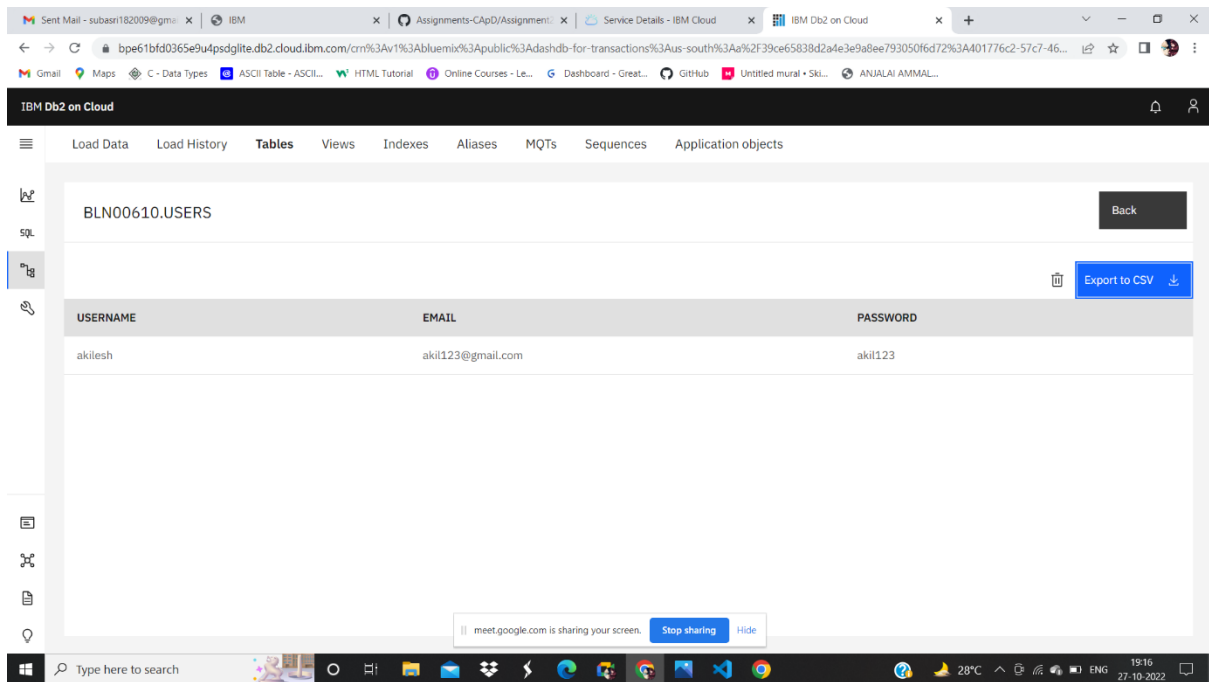
{{ msg }}

akilesh

akil123@gmail.com

Register

already have an account ? please login login!



Question-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

Solution:

App.py

```
# -*- coding: utf-8 -*-
"""
Created on Sat Oct 1 19:03:39 2022

@author: SUBASRI
"""

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

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

conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=9938aec0-8105-433e-8bf9-0fbb7e483086.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32459;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=bln00610;PWD=sGduNe7FvZR2LzTo", '', '')

def homer():
```

```

        return render_template('home.html')

@app.route('/login', methods = ['GET', 'POST'])
def login():
    global userid
    msg = " "

    if request.method == 'POST' :
        username = request.form['username']
        email = request.form['email']
        password = request.form['password']
        sql = "SELECT * FROM users WHERE username =? AND password =?"
        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:
            session['loggedin'] = True
            session['id'] = account['USERNAME']
            userid = account['USERNAME']
            session['username'] = account['USERNAME']
            msg = 'Logged in successfully !'

            msg = 'Logged in successfully !'
            return render_template('dashboard.html', msg = msg)
        else:
            msg = 'Incorrect username / password !'
            return render_template('login.html', msg = msg)

@app.route('/register', methods = ['GET', 'POST'])
def register():
    msg = " "

    if request.method == 'POST' :
        username = request.form['username']
        email = request.form['email']
        password = request.form['password']
        sql = "SELECT * FROM users 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'^[a-zA-Z0-9]+@[a-zA-Z0-9]+\.[a-zA-Z0-9]+$', email):
            msg = 'Invalid email address !'

```

```

elif not re.match(r'[A-Za-z0-9]+', username):
    msg = 'name must contain only characters and numbers !'
else:
    insert_sql = "INSERT INTO users VALUES (?, ?, ?)"
    prep_stmt = ibm_db.prepare(conn, insert_sql)
    ibm_db.bind_param(prepare_stmt, 1, username)
    ibm_db.bind_param(prepare_stmt, 2, email)
    ibm_db.bind_param(prepare_stmt, 3, password)
    ibm_db.execute(prepare_stmt)
    msg = 'You have successfully registered !'
elif request.method == 'POST':
    msg = 'Please fill out the form !'
return render_template('register.html', msg = msg)

@app.route('/dashboard')
def dash():

    return render_template('dashboard.html')

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

        qualification= request.form['qualification']
        skills = request.form['skills']
        jobs = request.form['s']
        sql = "SELECT * FROM users 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 = 'there is only 1 job position! for you'
            return render_template('apply.html', msg = msg)

        insert_sql = "INSERT INTO job VALUES (?, ?, ?, ?, ?)"
        prep_stmt = ibm_db.prepare(conn, insert_sql)
        ibm_db.bind_param(prepare_stmt, 1, username)
        ibm_db.bind_param(prepare_stmt, 2, email)
        ibm_db.bind_param(prepare_stmt, 3, qualification)
        ibm_db.bind_param(prepare_stmt, 4, skills)
        ibm_db.bind_param(prepare_stmt, 5, jobs)
        ibm_db.execute(prepare_stmt)
        msg = 'You have successfully applied for job !'

```

```

        session['loggedin'] = True
        TEXT = "Hello,a new application for job position" +jobs+"is
requested"

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

@app.route('/display')
def display():
    print(session["username"],session['id'])

    cursor = mysql.connection.cursor()
    cursor.execute('SELECT * FROM job WHERE userid = % s', (session['id'],))
    account = cursor.fetchone()
    print("accountdisplay",account)

    return render_template('display.html',account = account)

@app.route('/logout')
def logout():
    session.pop('loggedin', None)
    session.pop('id', None)
    session.pop('username', None)
    return render_template('home.html')

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

```

Registration page

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>JOBPORTAL | LOGIN</title>
    <!-- favicon -->
    <!-- <link rel="shortcut icon" href="/assets/img/favicon.ico"
type="image/x-icon"> -->
    <!-- <link rel="icon" href="/assets/img/favicon.ico" type="image/x-
icon"> -->

```



```

        <link rel="icon" type="image/png" sizes="16x16"
href="/assets/img/favicon-32x32.png">
        <!-- bootstrap css cdn -->
        <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css
" integrity="sha384-
JcKb8q3iqJ61gNV9KGb8thSsNjpsL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous">
        <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-
awesome.css">
        <!-- css stylesheet -->
        <link rel="stylesheet" href="css/style.css">
        <!-- font styles cdn -->
        <link rel="preconnect" href="https://fonts.gstatic.com">
        <link
href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap"
rel="stylesheet">
        <link
href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap"
rel="stylesheet">
</head>
<body>
    <!-- bootstrap navbar -->
    <div class="logo mt-3 text-center">
        <a class="main-logo-img mt-5" href="#">
            <!-- <a class="navbar-brand" href="index.html">JobPortal</a> -->
        </a>
    </div>
    <!-- navbar ends -->
    <!-- Login form -->
    <div class="login text-center mt-5">
        <h2> Register Form </h2>
        <form action="/register" method="post">
            <div class="msg">{{ msg }}</div>
            <!-- <input type="text" placeholder="fullname" id="fullname">
</br></br> -->

            <input type="text" name="username" placeholder="Enter Your
Username" id="username" required></br></br>
            <input type="email" name="email" placeholder="Enter Your Email
ID" id="email" required></br></br>
            <input type="password" name="password" placeholder="Enter Your
Password" id="password" required></br></br>

            </br>

```

```

        </br>
        <button type="submit" id="button" class="btn btn-primary"> Register
</button>
    </form>
</div>

<div class="note mt-3 text-center"> <!--Register form -->
<p> already have an account ? please login <a href="/login">login! </a>
</p>

</div>
</body>
</html>

```

Login page

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>JOBPORTAL | LOGIN</title>
    <!-- favicon -->
    <!-- <link rel="shortcut icon" href="/assets/img/favicon.ico"
type="image/x-icon"> -->
    <!-- <link rel="icon" href="/assets/img/favicon.ico" type="image/x-
icon"> -->
    <link rel="icon" type="image/png" sizes="16x16"
href="/assets/img/favicon-32x32.png">
    <!-- bootstrap css cdn -->
    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css
" integrity="sha384-
JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous">
    <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-
awesome.css">
    <!-- css stylesheet -->
    <link rel="stylesheet" href="css/style.css">
    <!-- font styles cdn -->
    <link rel="preconnect" href="https://fonts.gstatic.com">
    <link
href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap"
rel="stylesheet">

```

```

        <link
href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap"
rel="stylesheet">
</head>
<body>
    <!-- bootstrap navbar -->
    <div class="logo mt-3 text-center">
        <a class="main-logo-img mt-5" href="#">
            <!-- <a class="navbar-brand" href="index.html">JobPortal</a> -->
        </a>
    </div>
    <!-- navbar ends -->
    <!-- Login form -->
    <div class="login text-center mt-5">
        <h2> Login Form </h2>
        <form action="/login" method="post">
            <div class="msg">{{ msg }}</div>
            <input type="text" name="username" placeholder="Enter Your
Username" id="username" required></br></br>
            <input type="password" name="password" placeholder="Enter Your
Password" id="password" required></br></br>
            <br>
            <br>
            <button type="submit" id="button" class="btn btn-primary"> Login
</button>
        </form>
    </div>

    <div class="note mt-3 text-center"> <!--Register form -->
    <p> Don't have an account yet? Click here to <a href="register">register!
</a> </p>
    </div>
</body>
</html>

```



Register Form

{{ msg }}

Register

already have an account ? please login [login!](#)

Load Data	Load History	Tables	Views	Indexes	Aliases	MQTs	Sequences	Application objects
BLN00610.USERS								
<div>Export to CSV</div>								
USERNAME	EMAIL	PASSWORD						
akilesh	akil123@gmail.com	akil123						

