

## Assignment -2

|                     |                   |
|---------------------|-------------------|
| Assignment Date     | 28 September 2022 |
| Student Name        | Ms.Subasri D R    |
| Student Roll Number | 820419104073      |
| 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     |

**Data objects** | My script

Filter objects

SQL

SHQ81471

\*Untitled - 1

```

1 insert into userinfo values('raji','raji123@gmail.com','raji123',1);
2 insert into userinfo values('charu','charu78@gmail.com','cha123',2);
3

```

Syntax assistant

Run all

History

Find history

| 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 |

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

SHQ81471.USERINFO

Back

Export to CSV

| 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** | My script

Filter objects

SHQ81471

**\*Untitled - 1** | **\*Untitled - 2** | +

Syntax assistant | Run all

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

**History**

Find 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.

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

SHQ81471.USERINFO

Back

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** | My script

Filter objects

SHQ81471

**\*Untitled - 1** | **\*Untitled - 2** | **\*Untitled - 3** | +

Syntax assistant | Run all

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

**History**

Find 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 }}

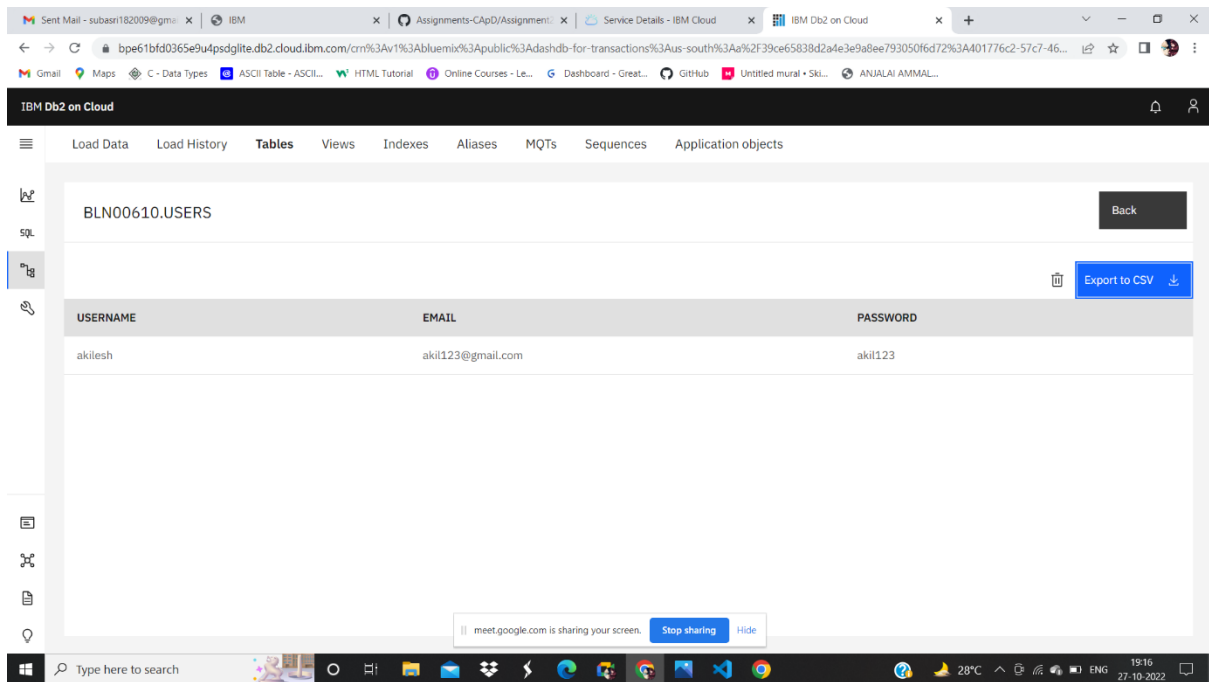
akilesh

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  |       |         |         |      |           |                     |

