

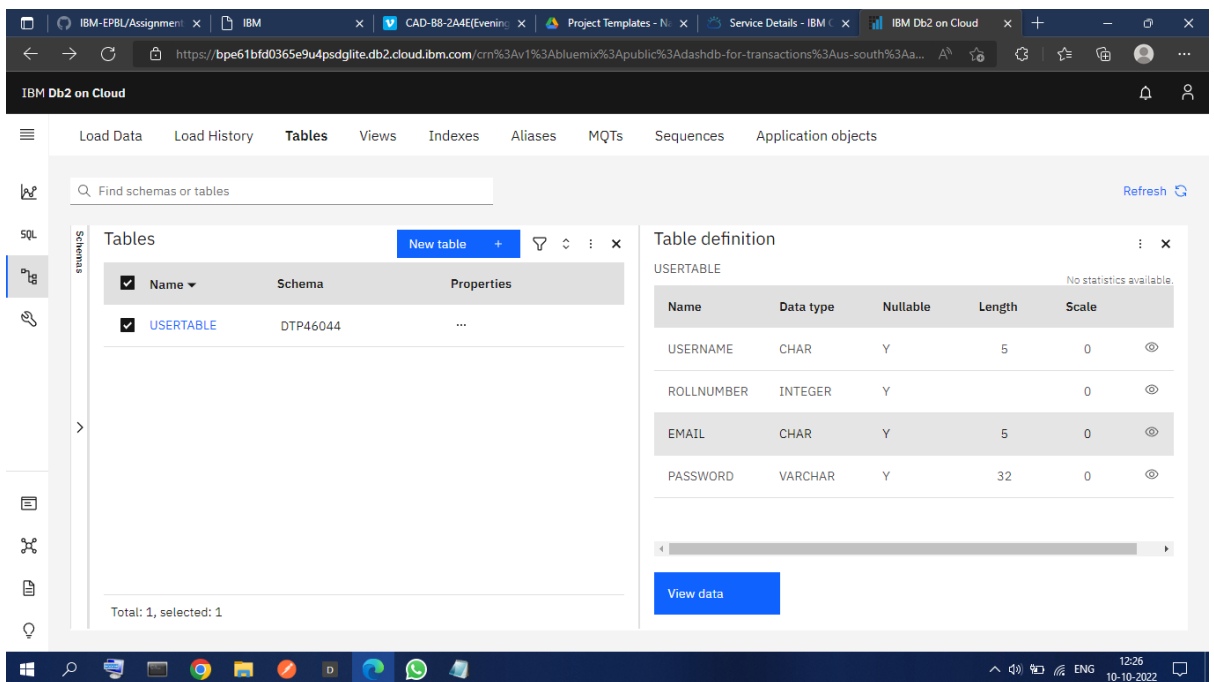
## Assignment -2

### IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	SAMYUKTHA V
Student Roll Number	713319CS124
Maximum Marks	2 Marks

#### Questions:

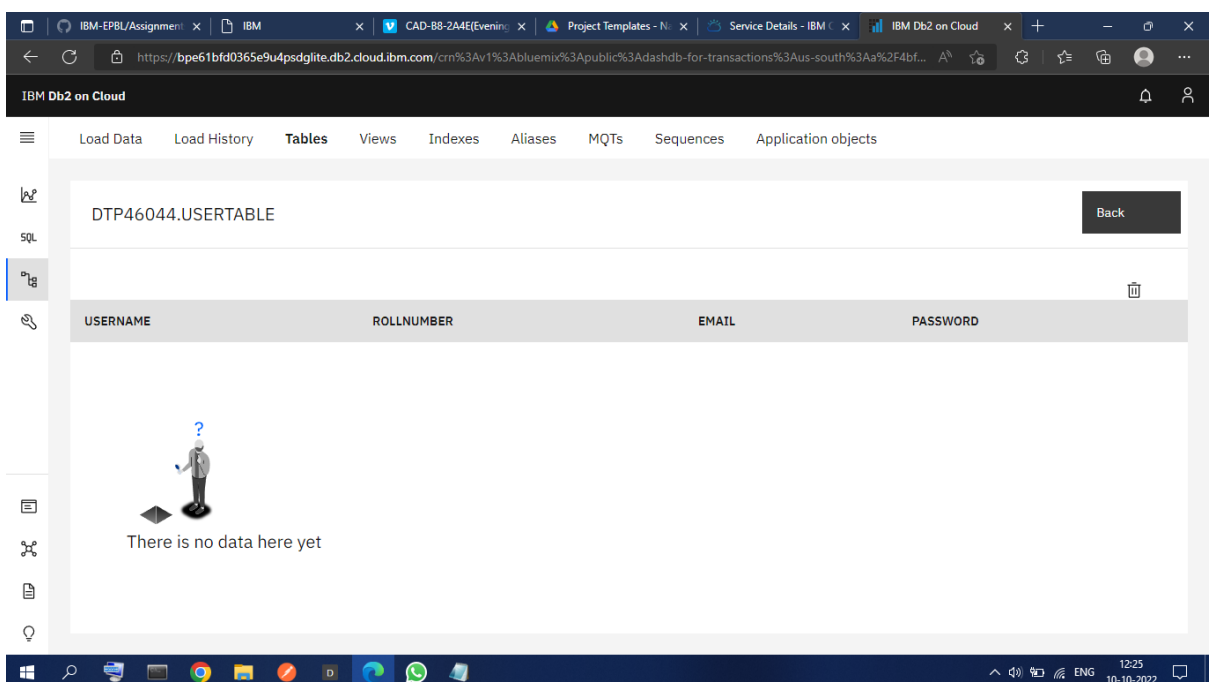
1. Create User table with user with email, username, roll number, password.



The screenshot shows the IBM Db2 on Cloud console interface. The 'Tables' tab is selected, and a new table named 'USERTABLE' is being defined. The table definition panel on the right shows the following columns:

Name	Data type	Nullable	Length	Scale
USERNAME	CHAR	Y	5	0
ROLLNUMBER	INTEGER	Y		0
EMAIL	CHAR	Y	5	0
PASSWORD	VARCHAR	Y	32	0

The 'View data' button is visible at the bottom of the table definition panel.



The screenshot shows the IBM Db2 on Cloud console interface. The 'Tables' tab is selected, and the table 'DTP46044.USERTABLE' is displayed. The table is empty, and a message 'There is no data here yet' is shown. The table structure is visible at the top:

USERNAME	ROLLNUMBER	EMAIL	PASSWORD
----------	------------	-------	----------

The 'Back' button is visible in the top right corner of the table view.

2. Perform UPDATE, DELETE Queries with user table.

### UPDATE TABLE:

The screenshot shows the IBM Db2 on Cloud console interface. On the left, the 'Data objects' panel lists 'DTP46044'. The main editor area shows a script titled '\*Untitled - 1' with the following SQL query:

```
1 INSERT INTO USERTABLE VALUES ('VK',21,'VK@gamil.com','1234')
```

The query has been executed successfully. The 'History' panel at the bottom shows the execution details:

Script	Date	Status	Runtime
Untitled - 1	Oct 10, 2022 12:51:13 PM	✓ 1	0.018 s
INSERT INTO USERTABLE VALUES ('VK',21,'VK@gamil.com','1234')		✓	0.018 s

The screenshot shows the IBM Db2 on Cloud console interface displaying the contents of the 'DTP46044.USERTABLE' table. The table has the following columns: USERNAME, ROLLNO, EMAIL, and PASSWORD. The data is as follows:

USERNAME	ROLLNO	EMAIL	PASSWORD
SAMYUKTHA	21	VK@gamil.com	1234

DELETE TABLE:

IBM Db2 on Cloud

Load DataLoad HistoryTablesViewsIndexesAliasesMQTsSequencesApplication objects

DTP46044.USERTABLE

Back

Export to CSV

USERNAME	ROLLNO	EMAIL	PASSWORD
SAMYUKTHA	21	VK@gamil.com	1234
VK	23	VK@gamil.com	12D34

IBM Db2 on Cloud

Data objectsMy script

Filter objects

DTP46044

Untitled - 1

1DELETE FROM USERTABLE WHERE ROLLNO = 23 ;

Run all

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Oct 10, 2022 1:02:49 PM	1	0.006 s
DELETE FROM USERTABLE WHERE ROLLNO = 23			0.006 s
Untitled - 1	Oct 10, 2022 1:00:11 PM	1	0.007 s
INSERT INTO USERTABLE VALUES ('VK',23,'VK@gamil.com','12D34')			0.007 s
Untitled - 1	Oct 10, 2022 12:59:55 PM	1	0.044 s

IBM Db2 on Cloud

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DTP46044.USERTABLE

Back

Export to CSV

USERNAME	ROLLNO	EMAIL	PASSWORD
SAMYUKTHA	21	VK@gamil.com	1234

3.Connect python code to db2.

**NOTE:- Question 4 contains Question 3 answer**

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

## Answers

### App.py

```
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=#;HOSTNAME=#;PORT=32731;USERNAME=#;PASSWORD=#;SECURITY=SSL;SSLSE
RVERCERTIFICATE=DigiCertGlobalRootCA.crt;", "", "")

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

    if request.method == 'POST':
        username = request.form['username']
        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.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 !'

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

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

```

## Register.html

```

<!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>Smart Fashion register</title>

<!-- 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="/Assignments/Samyuktha V (Team Member
1)/Assaignment -2/SRC/static/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 -->
    <!-- navbar ends -->
    <!-- Login form -->
    <div class="login text-center mt-5">

        <form action="/" method="post">
            <h2 class="form-text-h2"> Register Form </h2>
            <div class="msg">{{ msg }}</div><br>
            <input type="text" class="form-control" name="username"
placeholder="Enter Your Username" id="username"
                required> <br>
            <input type="email" class="form-control" name="email"
placeholder="Enter Your Email ID" id="email"
                required><br>
            <input type="password" class="form-control" name="password"
placeholder="Enter Your Password" id="password"
                required><br>
            <button type="submit" id="button" class="btn btn-primary">
Register </button>
            <div class="note mt-3 text-center">
                <!--Register form -->

```

```

                <p> Already have an Account ? Please <a href="/login">Login!
                </a>
            </p>

        </div>
    </form>

</div>
</body>

</html>

```

### Login.html

```

<!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>Smart Fashion 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="/Assignments/Samyuktha V (Team Member
1)/Assaignment -2/SRC/static/css/style2.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>

    <div class="login text-center mt-5">

        <form action="/login" method="post">
            <h2 class="form-text-h2"> Login Form </h2>
            <div class="msg">{{ msg }}</div>
            <div class="form-group mb-3">
                <label class="label" for="username">Username</label>
                <input type="text" class="form-control" placeholder="Username"
name="username" required>
            </div>
            <div class="form-group mb-3">
                <label class="label" for="password">Password</label>
                <input type="password" class="form-control"
placeholder="Password" name="password" required>
            </div>

            <button type="submit" id="button" class="btn btn-primary"> Login
</button>

            <div class="note mt-3 text-center">
                <!--Register form -->
                <p> Don't have an account yet? Click here to <a
                    href="/Assignments/Samyuktha V (Team Member
1)/Assaignment -2/SRC/templates/register.html">register!
                </a> </p>
            </div>
        </form>
    </div>

</body>

</html>

```

### Style.css

```

* {
    margin: 0;
    padding: 0;
}
body{
    background-image: url("https://images.pexels.com/photos/1509534/pexels-
photo-1509534.jpeg?auto=compress&cs=tinysrgb&w=1260&h=750&dpr=1") !important;

```



```

    /* background-color: rgb(255, 0, 162) !important; */
    background-position: center;
    background-repeat: no-repeat;
    background-size: cover;
    display: flex;
    flex-direction: column;
    align-items: center;
    justify-content: center;
}
form{
    display: flex;
    flex-direction: column;
    align-items: center;
    justify-content: center;
    background-color: #AFEEDD;
    width: 40%;
    height: 500px;
    border-radius: 10px;
    margin: 100px;
}
h1 {
    margin: 290px;
    width: 43%;
    border: 3px solid #ffffff;
    padding: 10px;
    font-size: 50px;
    font-weight: bolder;
    color: #FAFF00;
}

h2 {
    font-size: large;
    font-weight: bolder;
}

input {
    width: 80% !important;
}

div {
    display: flex;
    align-items: center;
    justify-content: center;
    flex-direction: column;
    width: 90%;
}

.form-text-vk {

```

```

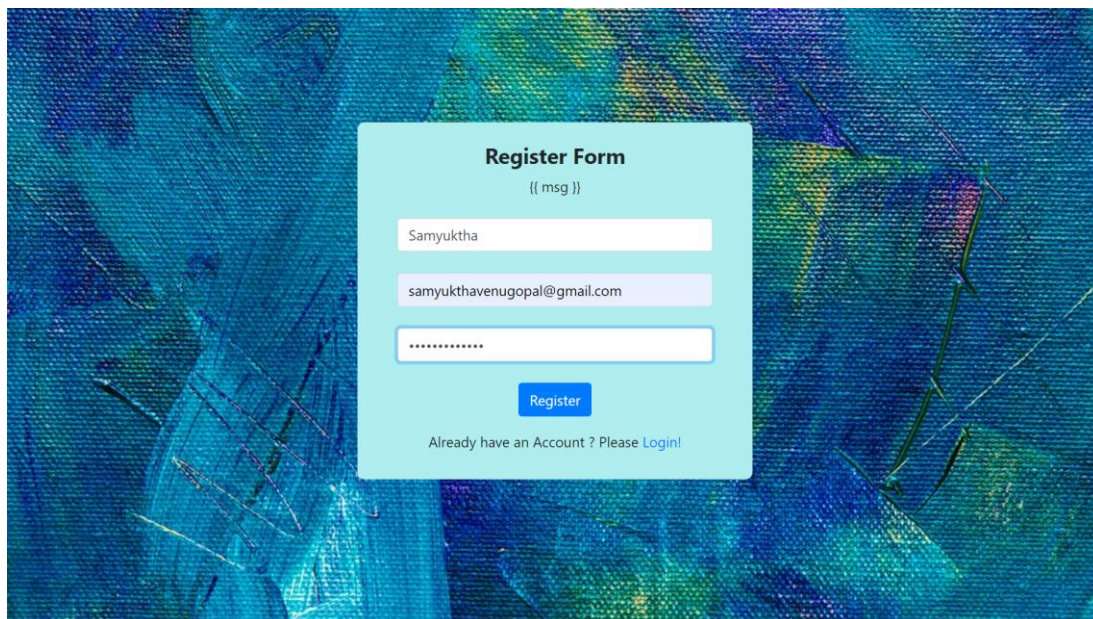
    font-size: small;
    padding-bottom: 10px;
}

.form-text-h2 {
    font-size: x-large;
    padding-top: 10px;
}

```

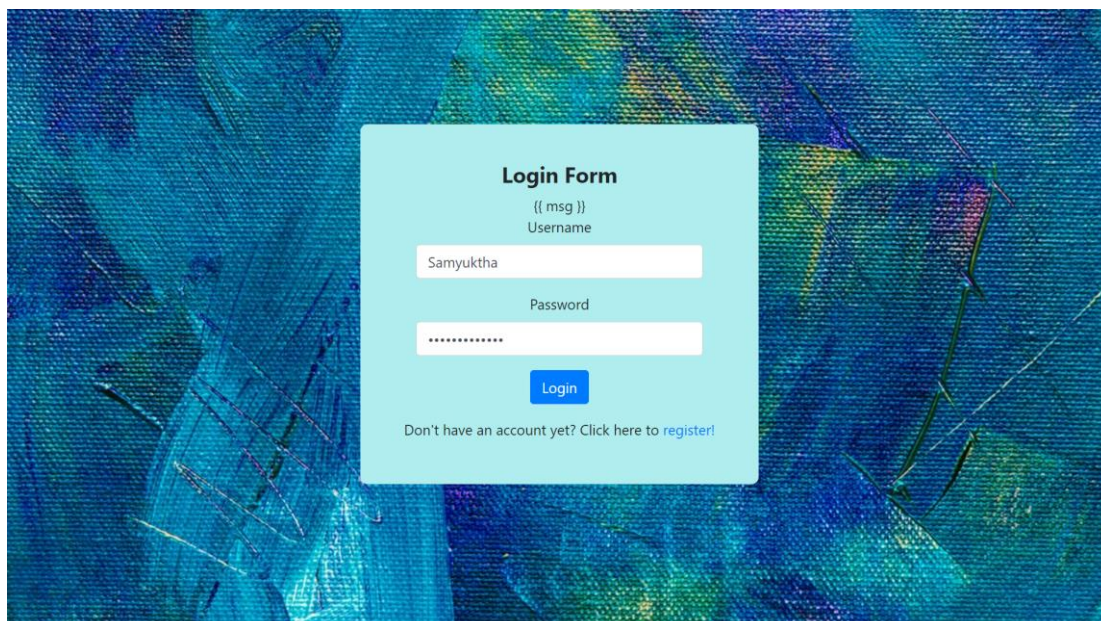
**Output:**

**Registration page:**



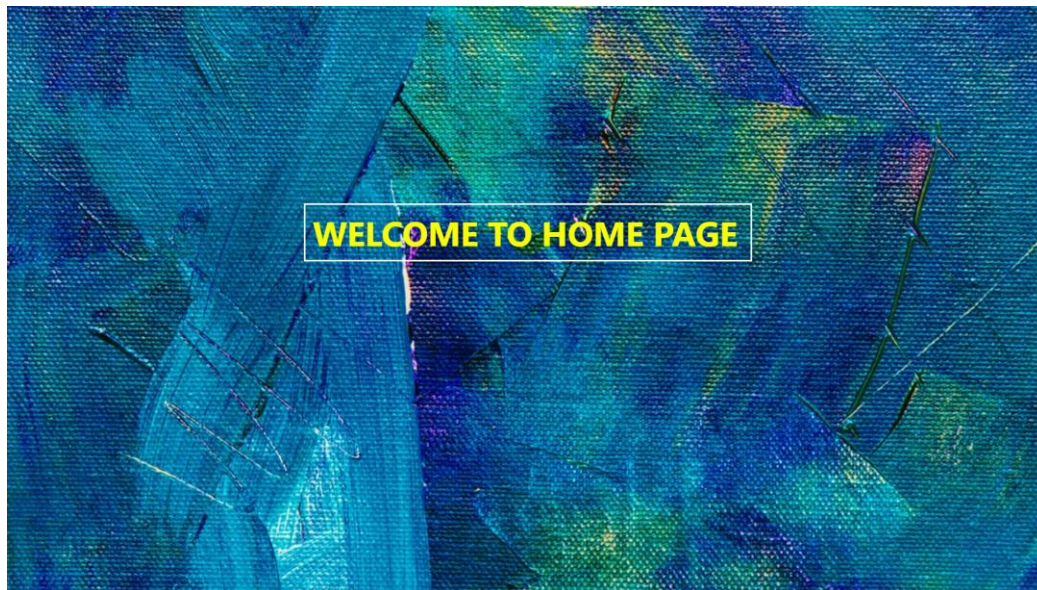
A screenshot of a registration form titled "Register Form" with a placeholder message "({ msg })". The form is set against a background of abstract, textured brushstrokes in shades of blue, green, and purple. The form itself is a light blue rectangle containing three input fields: a text field with "Samyuktha", an email field with "samyukthavenugopal@gmail.com", and a password field with masked characters "\*\*\*\*\*". Below the fields is a blue "Register" button. At the bottom, a link says "Already have an Account ? Please [Login!](#)".

**Login Page:**



A screenshot of a login form titled "Login Form" with a placeholder message "({ msg })". The form is set against the same abstract, textured background as the registration page. The form is a light blue rectangle containing two input fields: a text field labeled "Username" with "Samyuktha" and a password field labeled "Password" with masked characters "\*\*\*\*\*". Below the fields is a blue "Login" button. At the bottom, a link says "Don't have an account yet? Click here to [register!](#)".

## Welcome Page:



## Data Base Table :

IBM Db2 on Cloud

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

DTP46044.USERS Back

Export to CSV

USERNAME	EMAIL	PASSWORD
SAMYUKTHA	samyukthavenugopal@gmail.com	123432

Windows taskbar: 20:57 11-10-2022