

ASSIGNMENT-2

IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	ASHWINI.U
Student Roll Number	613019104008
Maximum Marks	2 Marks

Questions:

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

The screenshot displays the IBM Db2 on Cloud web interface. The browser address bar shows a URL starting with 'bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com'. The interface includes a top navigation bar with tabs for 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is active, showing a search bar and a 'Refresh' button. Below the search bar, a table lists the available tables:

Name	Schema	Properties
STUDENTS	GLZ67837	...

The 'STUDENTS' table is selected. To the right, the 'Table definition' panel shows the table's structure:

Name	Data type	Nullable	Length	Scale
USER NAME	CHAR	Y	5	0
ROLL NUMBER	INTEGER	Y		0
EMAIL ID	VARCHAR	Y	32	0
PASSWORD	VARCHAR	Y	32	0

At the bottom of the table definition panel, there is a 'View data' button. The status bar at the bottom of the interface shows 'Total: 1, selected: 1'.

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 displays a table named 'GLZ67837'. The main editor area shows a SQL query: `INSERT INTO Students values ('ash','88','ashw@gmail.com','Ash@');`. The 'History' tab at the bottom shows the execution details of the query.

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 11:23:28 AM	✓ 1	0.007 s
INSERT INTO Students values ('ash','88','ashw@gmail.com','Ash@')		✓	0.007 s

The screenshot shows the IBM Db2 on Cloud console interface displaying the contents of the 'GLZ67837.STUDENTS' table. The table has four columns: 'USER NAME', 'ROLL NUMBER', 'EMAIL ID', and 'PASSWORD'. The data row shows 'ash' as the user name, '8' as the roll number, 'ashw@gmail.com' as the email ID, and 'Ash@' as the password.

USER NAME	ROLL NUMBER	EMAIL ID	PASSWORD
ash	8	ashw@gmail.com	Ash@

DELETE TABLE:-

The screenshot shows the IBM Db2 on Cloud console interface. The left sidebar displays the 'Data objects' tab with a search bar and a list of objects, including 'GLZ67837'. The main area shows a script editor with the following SQL code:

```
1 INSERT INTO Students values ('ash','08','ashw@gmail.com','Ash@');
2 INSERT INTO Students values ('smith','09','smith@gmail.com','Smith@');
3 DELETE FROM Students WHERE USERNAME = 'ash';
```

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

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 11:27:52 AM	✓ 3	0.023 s
INSERT INTO Students values ('ash','08','ashw@gmail.com','Ash@')		✓	0.009 s
INSERT INTO Students values ('smith','09','smith@gmail.com','Smith@')		✓	0.007 s
DELETE FROM Students WHERE USERNAME = 'ash'		✓	0.007 s
Untitled - 1	Oct 19, 2022 11:23:28 AM	✓ 1	0.007 s

The screenshot shows the IBM Db2 on Cloud console interface, displaying the contents of the 'GLZ67837.STUDENTS' table. The table has the following columns: USERNAME, ROLL NUMBER, EMAIL ID, and PASSWORD. The data is as follows:

USERNAME	ROLL NUMBER	EMAIL ID	PASSWORD
smith	9	smith@gmail.com	Smith@

The interface also includes a 'Back' button and an 'Export to CSV' button.

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=Db2New;HOSTNAME=19af6446-6171-4641-8aba-
    9dcff8e1b6ff.clogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=30699;USERNAM
    E=kgb92696;PASSWORD=3IlWyGYU3bMIvwnX;SECURITY=SSL;SSLSERVERCERTIFICATE=DigiCer
    tGlobalRootCA.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>Skill and Job Recommender 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="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>
      <input type="text" class="form-control" name="username"
placeholder="Enter Your Username" id="username"
        required>
      <input type="email" class="form-control" name="email"
placeholder="Enter Your Email ID" id="email" required>
      <input type="password" class="form-control" name="password"
placeholder="Enter Your Password" id="password"
        required>
      <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 login <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>Skill and Job Recommender 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="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>

    <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="/">register! </a> </p>
            </div>
        </form>
    </div>

</body>

</html>

```

Style.css

```

* {
    margin: 0;
    padding: 0;
}
body {
    color: #444444;
    background: linear-gradient(-45deg, #EE7752, #E73C7E, #23A6D5, #23D5AB);
    background-size: 400% 400%;
    position: relative;
    display: flex;
    flex-direction: column;

```



```

    align-items: center;
    justify-content: center;
    animation: anime 10s ease-in-out infinite;
}
@keyframes anime{
    0%{
        background-position: 0 50%;
    }
    50%{
        background-position: 100% 50%;
    }
    100%{
        background-position: 0 50%;
    }
}

```

```

form {
    display: flex;
    flex-direction: column;
    align-items: center;
    justify-content: center;
    background-color: white;
    width: 40%;
    height: 450px;
    border-radius: 50px;
    margin: 100px;
    gap: 25px;
}

```

```

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%;
}

```

```

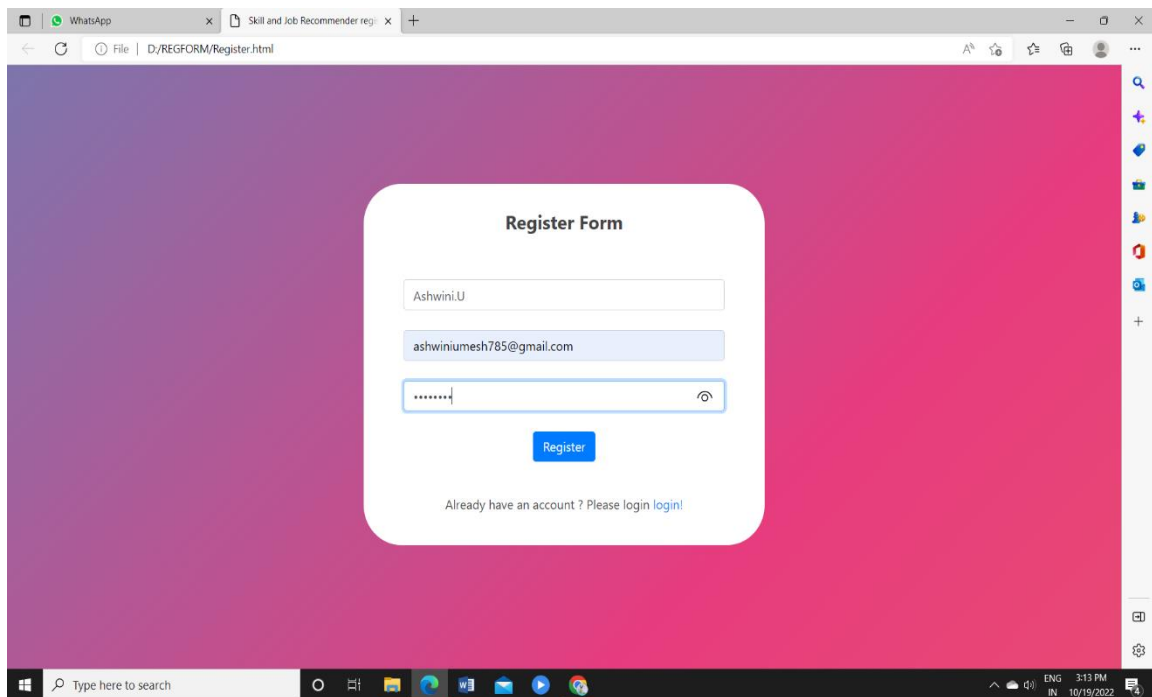
.form-text-vk {
    font-size: small;
}

```

```
padding-bottom: 10px;
}

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

OUTPUT:- REGISTRATION PAGE:-



The screenshot displays a web browser window with two tabs: 'WhatsApp' and 'Skill and Job Recommender reg:'. The active tab shows a file named 'D:/REGFORM/Register.html'. The browser's address bar and navigation icons are visible. The main content area features a registration form titled 'Register Form' centered on a pink-to-purple gradient background. The form includes three input fields: a text field with 'Ashwini.U', an email field with 'ashwinimesh785@gmail.com', and a password field with masked characters '*****' and a toggle icon. A blue 'Register' button is positioned below the inputs. At the bottom of the form, a link reads 'Already have an account ? Please login [login!](#)'. The Windows taskbar at the bottom shows the search bar, task view, and several application icons, with the system clock indicating 3:13 PM on 10/19/2022.

Register Form

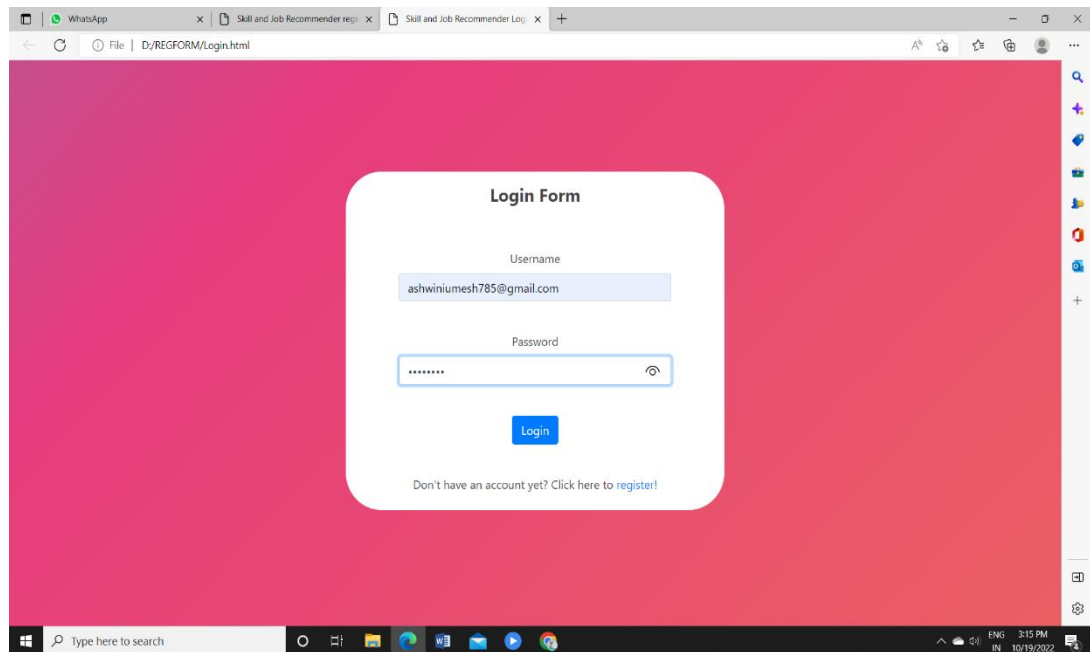
Ashwini.U

ashwinimesh785@gmail.com

Register

Already have an account ? Please login [login!](#)

LOGIN PAGE:-



WhatsApp Skill and Job Recommender reg Skill and Job Recommender Log

File | D:/REGFORM/Login.html

Login Form

Username

ashwiniimesh785@gmail.com

Password

Login

Don't have an account yet? Click here to [register!](#)

Type here to search

ENG 3:15 PM 10/19/2022

WELCOME PAGE:-

