

## ASSIGNMENT- 2

### IBM CLOUD DB2

Date	29 September 2022
Student Name	JOTHILASHMI R
Student Roll Number	613019104029
Maximum Marks	2 Marks

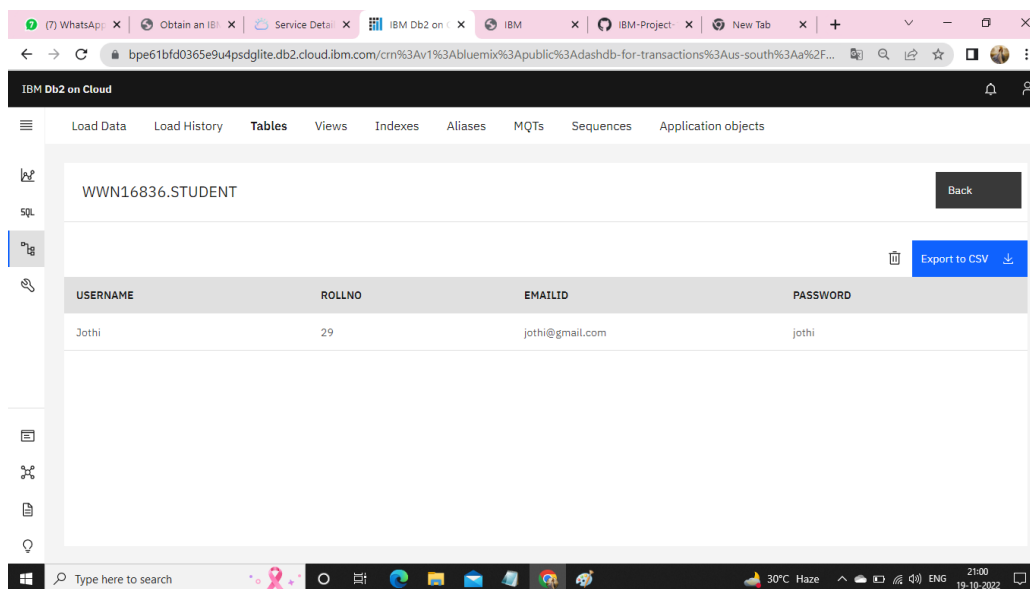
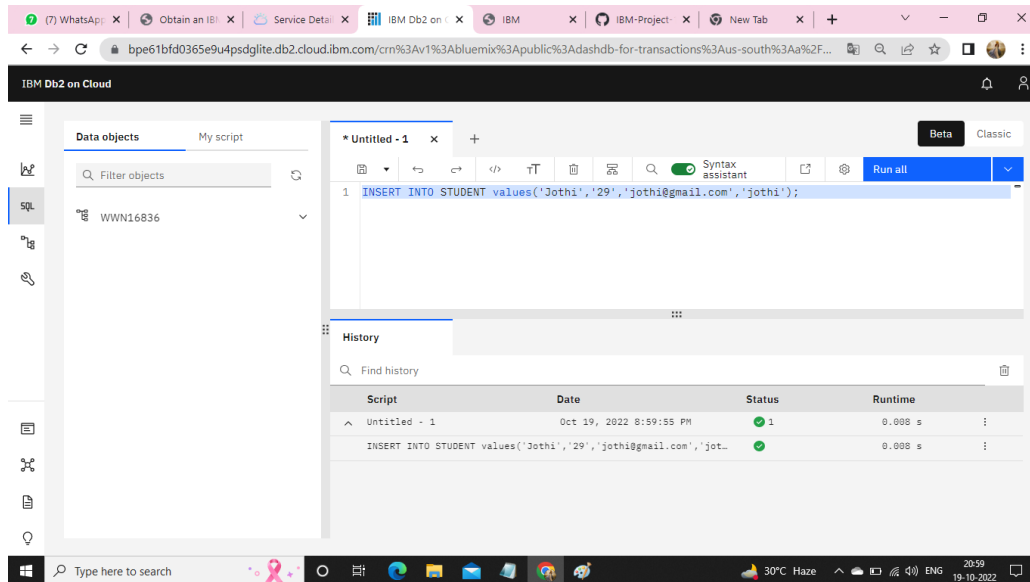
Questions:

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

The screenshot displays the IBM Db2 on Cloud web interface. The browser's address bar shows the URL: `bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F...`. 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 table list. The table list contains one entry: 'STUDENT' in the 'WWN16836' schema. To the right, the 'Table definition' panel for the 'STUDENT' table is shown, detailing its columns: 'USERNAME' (CHAR, 5, nullable), 'ROLLNO' (INTEGER, nullable), 'EMAILID' (VARCHAR, 32, nullable), and 'PASSWORD' (VARCHAR, 32, nullable). A 'View data' button is located at the bottom of the definition panel. The bottom of the image shows a Windows taskbar with the search bar, task view button, and several application icons, along with a system tray displaying '30°C Haze' and the date '19-10-2022'.

## 2) Perform UPDATE, DELETE queries with user table.

### UPDATE TABLE:



## DELETE TABLE:

The screenshot shows the IBM Db2 on Cloud console interface. The left sidebar contains navigation icons for Data objects, My script, and SQL. The main area displays the 'Data objects' tab with a search bar and a list of objects, including 'WWN16836'. The 'My script' tab is active, showing a SQL script with three lines: 1. INSERT INTO STUDENT values('Jothi','29','jothi@gmail.com','jothi'); 2. INSERT INTO STUDENT values('Ramya','34','ramya@gmail.com','ramya'); 3. DELETE FROM STUDENT WHERE USERNAME='Jothi';. The 'Run all' button is visible. Below the script, the 'History' tab shows a table of execution results.

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 9:04:49 PM	3	0.016 s
INSERT INTO STUDENT values('Jothi','29','jothi@gmail.com','j...		✓	0.006 s
INSERT INTO STUDENT values('Ramya','34','ramya@gmail.com','r...		✓	0.005 s
DELETE FROM STUDENT WHERE USERNAME='Jothi'		✓	0.005 s
Untitled - 1	Oct 19, 2022 8:59:55 PM	1	0.008 s

The screenshot shows the IBM Db2 on Cloud console interface. The left sidebar contains navigation icons for Load Data, Load History, Tables, Views, Indexes, Aliases, MQTs, Sequences, and Application objects. The main area displays the 'Tables' tab with a search bar and a list of tables, including 'WWN16836.STUDENT'. The 'Back' button is visible. Below the table name, the 'Export to CSV' button is visible. The table structure is shown with columns: USERNAME, ROLLNO, EMAILID, and PASSWORD. The data row shows: Ramya, 34, ramya@gmail.com, ramya.

USERNAME	ROLLNO	EMAILID	PASSWORD
Ramya	34	ramya@gmail.com	ramya

### 3) CONNECT PYTHON CODE TO DB2.

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

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.c1ogj3sd0tgtu0lqde00.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>Nutrition Assistant 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>Nutrition Assistant 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 {

```

```
padding-bottom: 10px;
}

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

**OUTPUT:**

**REGISTRATION PAGE:**

login!'. The browser tabs show 'Nutrition Assistant register' and 'Nutrition Assistant Login'. The address bar shows the file path 'C:/Users/KING/OneDrive/Desktop/F%20drive/Reg%20form/Register.html'. The Windows taskbar at the bottom shows the search bar, taskbar icons, and system tray with weather '32°C Mostly cloudy' and date '19-10-2022'."/>

**Register Form**

Jothilashmi

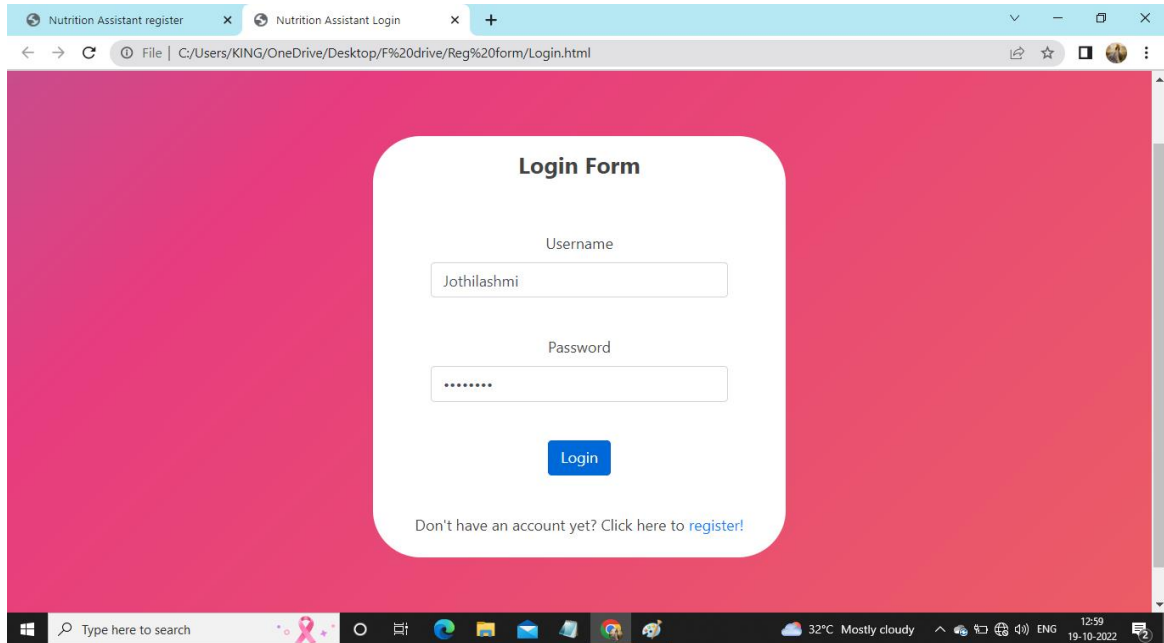
Jothil@gmail.com

.....

[Register](#)

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

## LOGIN PAGE:



Nutrition Assistant register x Nutrition Assistant Login x +

File | C:/Users/KING/OneDrive/Desktop/F%20drive/Reg%20form/Login.html

### Login Form

Username

Jothilashmi

Password

\*\*\*\*\*

Login

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

Type here to search 32°C Mostly cloudy 12:59 19-10-2022

## WELCOME PAGE:

