

Assignment - 2 IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	MOUNIKA R
Student Roll Number	613019104047
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. On the left, the 'Data objects' tab is selected, showing a list of objects including 'TRF41696'. The main area displays a SQL script in a text editor with the following content:

```
1 INSERT INTO STUDENTS values ('mouni','78','mou@gmail.com','Duke')
```

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

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 10:47:52 AM	✓ 1	0.010 s
INSERT INTO STUDENTS values ('mouni','78','mou@gmail.com...		✓	0.010 s

The bottom of the image shows the Windows taskbar with the time 10:51 AM on 19-Oct-22.

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

The screenshot displays the IBM Db2 on Cloud web interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, showing a list of tables. The table 'STUDENTS' in the 'TRF41696' schema is highlighted. The table definition is shown on the right, detailing the columns: USERNAME (CHAR, 5, nullable), ROLLNUMBER (INTEGER, nullable), EMAILID (VARCHAR, 32, nullable), and PASSWORD (VARCHAR, 32, nullable). The table data is displayed in a table format with columns: USERNAME, ROLLNUMBER, EMAILID, and PASSWORD. The data row shows: mouni, 78, mou@gmail.com, Duke. The interface also includes a search bar for schemas or tables, a 'New table' button, and a 'View data' button.

IBM Db2 on Cloud

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

TRF41696.STUDENTS

Back

Export to CSV

USERNAME	ROLLNUMBER	EMAILID	PASSWORD
mouni	78	mou@gmail.com	Duke

Find schemas or tables

Tables

New table

Name	Schema	Properties
STUDENTS	TRF41696	...

Total: 1, selected: 0

Table definition

STUDENTS

No statistics available.

Name	Data type	Nullable	Length	Scale
USERNA ME	CHAR	Y	5	0
ROLLNU MBER	INTEGER	Y		0
EMAILID	VARCHAR	Y	32	0
PASSWO RD	VARCHAR	Y	32	0

View data

DELETE TABLE:-

Service Details - IBM Db2 on Cloud

IBM Db2 on Cloud

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

TRF41696.STUDENTS Back

Export to CSV

USERNAME	ROLLNUMBER	EMAILID	PASSWORD
kavi	8	kavi@gmail.com	Door

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.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=30699;USERNAM
    E=kgb92696;PASSWORD=3WYGYU3bMvwnX;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'^[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('/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>Containment Zone Alerting 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>Containment Zone AlertingLogin</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%;
}

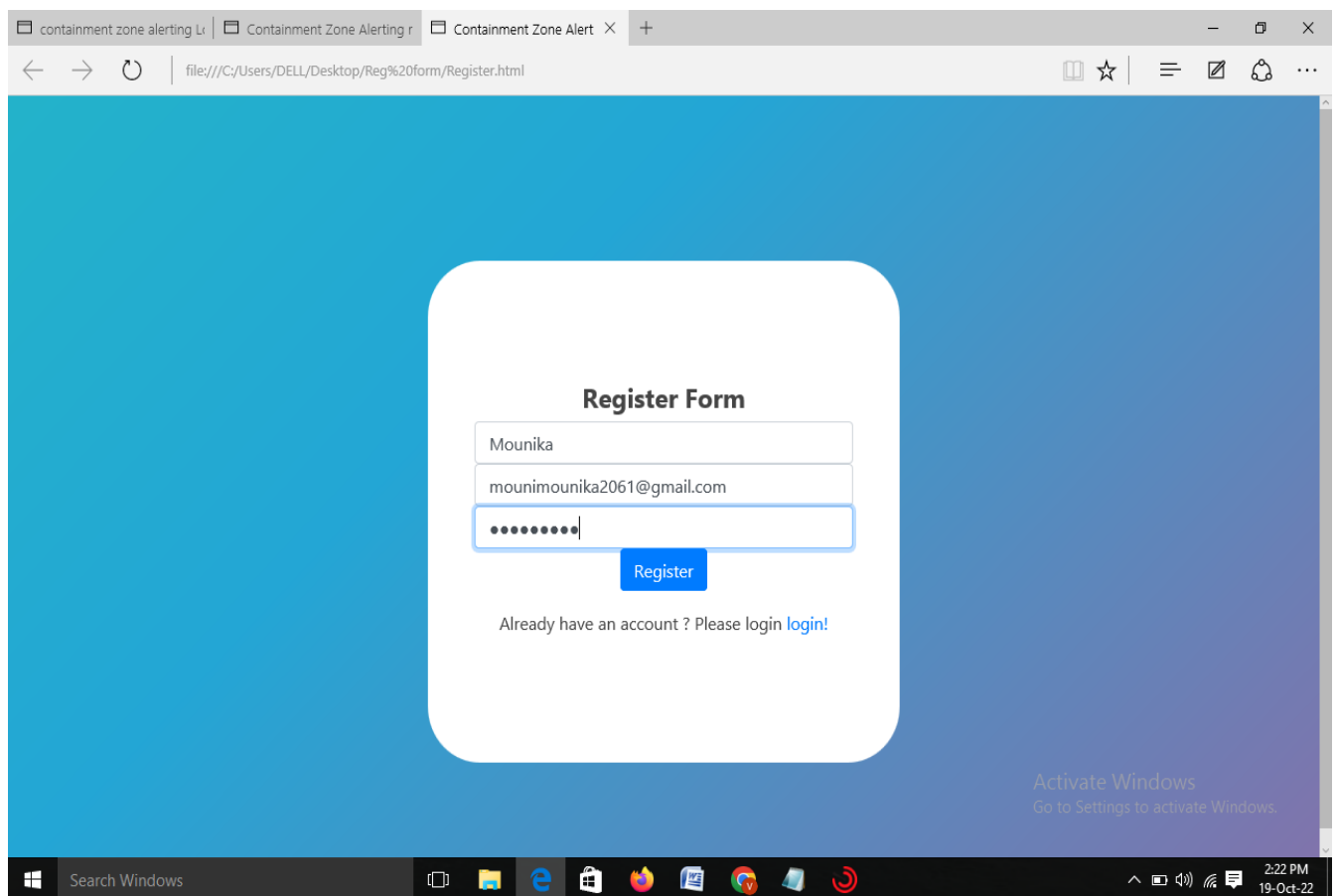
.form-text-vk {
    font-size: small;

```

```
padding-bottom: 10px;
}

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

OUTPUT:- REGISTRATION PAGE:-



The screenshot shows a web browser window with three tabs. The active tab is titled "Containment Zone Alert" and displays a registration form. The form is centered on a blue gradient background. It features a white rounded rectangle containing the title "Register Form", three input fields (Name: Mounika, Email: mounimounika2061@gmail.com, Password: masked with dots), a "Register" button, and a link to "login!". The Windows taskbar is visible at the bottom, showing the time as 2:22 PM on 19-Oct-22.

containment zone alerting Lr | Containment Zone Alerting r | Containment Zone Alert X +

file:///C:/Users/DELL/Desktop/Reg%20form/Register.html

Register Form

Mounika

mounimounika2061@gmail.com

.....

Register

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

Activate Windows
Go to Settings to activate Windows.

Search Windows

2:22 PM
19-Oct-22

LOGIN PAGE:-

containment zone alerting Lc containment zone alertir X +

file:///C:/Users/DELL/Desktop/Reg%20form/Login.html

Login Form

Username

Mounika

Password

.....

Login

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

Activate Windows
Go to Settings to activate Windows.

Search Windows

2:25 PM
19-Oct-22

WELCOME PAGE:-

