

Assignment - 2 IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	DEEPIKA N
Student Roll Number	613019104013
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. On the left, the 'Data objects' tab is active, showing a table named 'JFN20912'. The main area shows a SQL script editor with the following code:

```
1 INSERT INTO STUDENTS values ('deep','78','dee@gmail.com','Duke');
```

The script has been executed, and the 'History' tab shows the following details:

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 10:41:28 PM	✓ 1	0.010 s
INSERT INTO STUDENTS values ('deep','78','dee@gmail.com'...		✓	0.010 s

At the bottom of the console, there is a message: 'Activate Windows Go to Settings to activate Windows.'

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

The screenshot shows the IBM Db2 on Cloud console interface. The 'Tables' tab is selected, and the 'STUDENTS' table is highlighted. The 'Table definition' panel on the right displays the table's structure:

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

The console also shows a 'View data' button and a 'Store' button at the bottom.

The screenshot shows the IBM Db2 on Cloud console interface with the 'STUDENTS' table data displayed. The table has the following data:

USERNAME	ROLLNUMBER	EMAILID	PASSWORD
deep	78	dee@gmail.com	Duke

The console also shows an 'Export to CSV' button and a 'Back' button at the top right.

Service Details - IBM CloudxIBM Db2 on CloudxIBM Db2 on Cloudx+

←→↻bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crm%3A%2F%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F2c8baa...Paused

IBM Db2 on Cloud

Menu

Data objectsMy script

Filter objects

JFN20912

SQL

History

*Untitled - 1x+BetaClassic

Icons

Syntax assistant

Run all

1

2

3

INSERT INTO STUDENTS values ('deep','78','dee@gmail.com','Duke');

INSERT INTO STUDENTS values ('priya','08','pri@gmail.com','Door');

DELETE FROM STUDENTS WHERE USERNAME = 'deep';

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 10:48:15 PM	3	0.028 s
INSERT INTO STUDENTS values ('deep','78','dee@gmail.co...			0.011 s
INSERT INTO STUDENTS values ('priya','08','pri@gmail.c...			0.008 s
DELETE FROM STUDENTS WHERE USERNAME = 'deep'			0.009 s

File Explorer

Search Windows

File Explorer

10:48 PM19-Oct-22

DELETE TABLE:-

Service Details - IBM Cloud

IBM Db2 on Cloud

IBM Db2 on Cloud

+

← → ↺

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F2c8baa...

Paused

IBM Db2 on Cloud

Load Data

Load History

Tables

Views

Indexes

Aliases

MQTs

Sequences

Application objects

JFN20912.STUDENTS

Back

Export to CSV

USERNAME	ROLLNUMBER	EMAILID	PASSWORD
priya	8	pri@gmail.com	Door

Activate Windows
Go to Settings to activate Windows.

Search Windows

10:49 PM

19-Oct-22

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 Alerting 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 shows a web browser window with a registration form. The browser's address bar displays the file path: `file:///C:/Users/DELL/Desktop/Reg%20form/Register.html`. The form is centered on a blue-to-purple gradient background. It contains three input fields: a name field with 'Deepika', an email field with 'ndepikadeepika12@gmail.com', and a password field with masked characters. A blue 'Register' button is positioned below the password field. Below the button, there is a link: 'Already have an account ? Please login [login!](#)'. In the bottom right corner of the page, there is a Windows activation watermark that reads 'Activate Windows Go to Settings to activate Windows.'

Register Form

Deepika

ndepikadeepika12@gmail.com

.....

Register

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

Activate Windows
Go to Settings to activate Windows.

LOGIN PAGE:-

containment zone alerting Lc containment zone alertit X +

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

Login Form

Username

Deepika

Password

.....

Login

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

Activate Windows
Go to Settings to activate Windows.

Search Windows

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WELCOME PAGE:-

