

ASSIGNMENT-2

IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	SATHYA O
Student Roll Number	613019205701
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 top navigation bar includes 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: 'STUDENTS' in schema 'KJH07017'. The 'Table definition' panel on the right shows the schema for 'STUDENTS' with the following columns:

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

A 'View data' button is located at the bottom of the table definition panel. The bottom of the screenshot shows the Windows taskbar with the time 10:19 AM on 10/20/2022.

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

The screenshot shows the IBM Db2 on Cloud console interface. The top navigation bar includes tabs for 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, displaying a list of tables. The table 'KJH07017.STUDENTS' is highlighted. Below the table name, there is a table structure view with the following columns: USERNAME, ROLL NUMBER, EMAIL ID, and PASSWORD. The table contains one row of data: sath, 781, sathyasumathi10@gmail.com, and sat. An 'Export to CSV' button is visible on the right side of the table view.

USERNAME	ROLL NUMBER	EMAIL ID	PASSWORD
sath	781	sathyasumathi10@gmail.com	sat

The screenshot shows the IBM Db2 on Cloud console interface with the SQL editor open. The editor contains the following SQL statement:

```
INSERT INTO STUDENTS VALUES ('sath','781','sathyasumathi10@gmail.com','sat');
```

The 'Run all' button is visible on the right side of the editor. Below the editor, the 'History' tab is selected, showing a table with the execution history of the SQL statement.

Script	Date	Status	Runtime
Untitled - 1	Oct 20, 2022 10:27:38 AM	✓ 1	0.009 s
INSERT INTO STUDENTS VALUES ('sath','781','sathyasumathi10@gmail.com','sat')		✓	0.009 s

DELETE TABLE:-

The screenshot shows the IBM Db2 on Cloud console interface. On the left, the 'Data objects' panel lists a table named 'KJH07017'. The main editor area displays a SQL script with three lines: an INSERT statement for 'sath', another INSERT for 'suma', and a DELETE statement targeting 'sath'. Below the editor, the 'History' tab is active, showing a table of executed scripts.

Script	Date	Status	Runtime
Untitled - 1	Oct 20, 2022 10:31:23 AM	✓ 3	0.022 s
INSERT INTO STUDENTS VALUES ('sath','781','sathyasumathi10@gmail.com','sat');		✓	0.008 s
INSERT INTO STUDENTS VALUES ('suma','782','sumathi10@gmail.com','jan23');		✓	0.006 s
DELETE FROM STUDENTS WHERE USERNAME = 'sath';		✓	0.008 s
Untitled - 1	Oct 20, 2022 10:27:38 AM	✓ 1	0.009 s

The screenshot shows the IBM Db2 on Cloud console with the 'Tables' tab selected. The table 'KJH07017.STUDENTS' is displayed. The table structure and its data are as follows:

USERNAME	ROLL NUMBER	EMAIL ID	PASSWORD
suma	782	sumathi10@gmail.com	jan23

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;
}

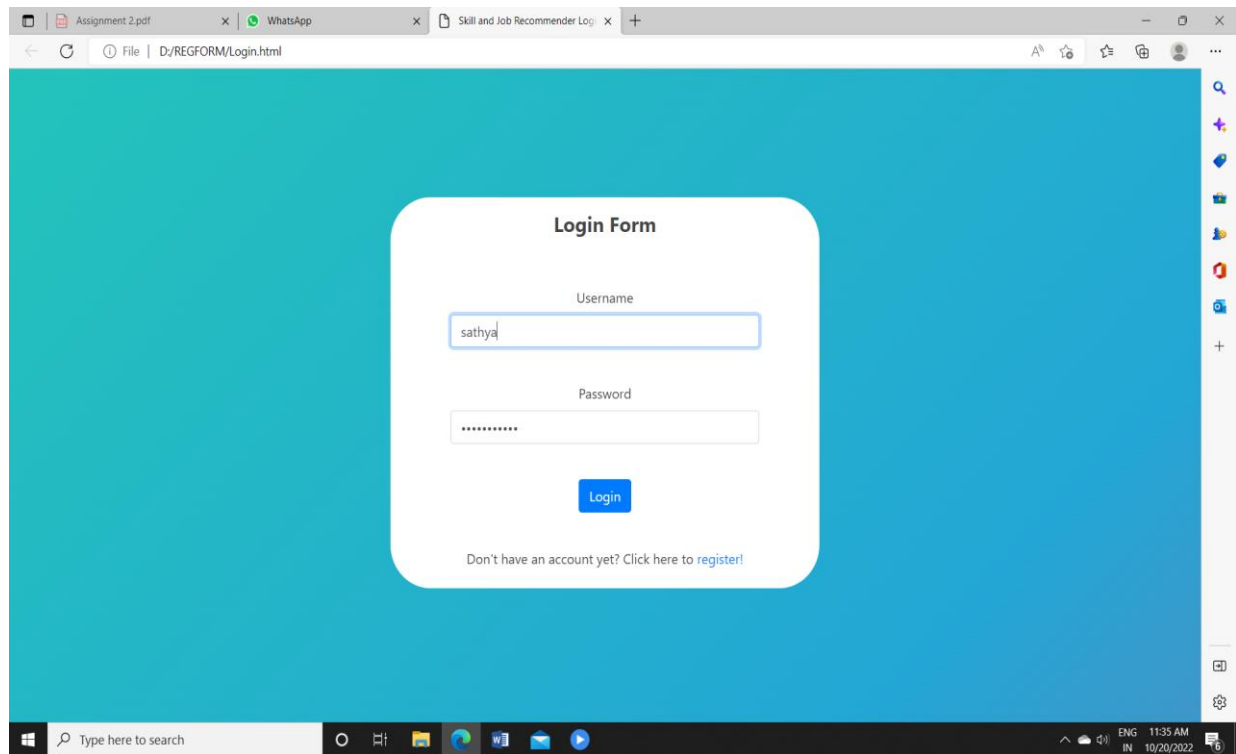
.form-text-h2 {
font-size: x-large;
padding-top: 10px;
}
```

OUTPUT:-

REGISTRATION PAGE:-

The screenshot displays a web browser window with multiple tabs. The active tab shows a file named 'D:/REGFORM/Register.html'. The page features a solid blue background with a white rounded rectangle in the center containing the registration form. The form is titled 'Register Form' and includes three input fields: a text field containing 'sathya', an email field containing 'sathyasumathi10@gmail.com', and a password field with masked characters and a toggle icon. A blue 'Register' button is positioned below the input fields. At the bottom of the form, there is a link: 'Already have an account ? Please login login!'. The browser's taskbar at the bottom shows the Windows logo, a search bar, and several application icons. The system clock indicates the time is 11:35 AM on 10/20/2022.

LOGIN PAGE:-



Assignment 2.pdf x WhatsApp x Skill and Job Recommender Logi x +

File | D:/REGFORM/Login.html

Login Form

Username

Password

Login

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

Type here to search

ENG 11:35 AM
IN 10/20/2022

WELCOME PAGE:-

