

ASSIGNMENT-2

IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	VINOTHA V
Student Roll Number	613019205052
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 'New table' button. Below the search bar, a table lists the existing tables: 'STUDENTS' in schema 'PRF36971'. The 'Table definition' panel on the right shows the structure of the 'STUDENTS' table:

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

The bottom of the interface shows a Windows taskbar with the date and time as 10:44 PM on 10/19/2022.

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 shows a database named 'PRF36971'. The main area displays a script editor with the following SQL query:

```
1 INSERT INTO STUDENTS values ('vino','781','vinothachoudri@gmail.com','vino');
```

The query has been executed successfully. The 'History' panel at the bottom shows the execution details:

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 10:40:38 PM	✓ 1	0.006 s
INSERT INTO STUDENTS values ('vino','781','vinothachoudri@gmail.com','vino')		✓	0.006 s

The screenshot shows the IBM Db2 on Cloud console interface displaying the contents of the 'PRF36971.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
vino	781	vinothachoudri@gmail.com	vino

DELETE TABLE:-

The screenshot shows the IBM Db2 on Cloud console interface. The top navigation bar includes links for 'Inbox (2,443)', 'Obtain an IBM Cloud Feature Co...', 'Service Details - IBM Cloud', and 'IBM Db2 on Cloud'. The main content area is divided into two tabs: 'Data objects' and 'My script'. The 'My script' tab is active, displaying a SQL script in a text editor. The script contains three lines: 1. `INSERT INTO STUDENTS values ('vino','781','vinothachoudri@gmail.com','vino');`, 2. `INSERT INTO STUDENTS values ('kiki','782','krishnakiki68@gmail.com','apr123');`, and 3. `DELETE FROM STUDENTS WHERE USERNAME = 'vino';`. The script is highlighted in blue. Below the script editor, there is a 'History' section with a table showing the execution history of the script. The table has four columns: 'Script', 'Date', 'Status', and 'Runtime'. The first row shows the script 'Untitled - 1' executed on 'Oct 19, 2022 10:46:22 PM' with a status of '3' and a runtime of '0.014 s'. The subsequent rows show the execution of the individual SQL statements, all with a status of '3' and a runtime of '0.006 s' or '0.004 s'. The bottom of the screenshot shows the Windows taskbar with various application icons and the system clock indicating 'ENG 10:46 PM IN 10/19/2022'.

IBM Db2 on Cloud

Data objects My script

Filter objects

PRF36971

*Untitled - 1

Syntax assistant Run all

```
1 INSERT INTO STUDENTS values ('vino','781','vinothachoudri@gmail.com','vino');
2 INSERT INTO STUDENTS values ('kiki','782','krishnakiki68@gmail.com','apr123');
3 DELETE FROM STUDENTS WHERE USERNAME = 'vino';
```

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 10:46:22 PM	3	0.014 s
INSERT INTO STUDENTS values ('vino','781','vinothachoudri@gmail.com','vino')		3	0.006 s
INSERT INTO STUDENTS values ('kiki','782','krishnakiki68@gmail.com','apr123')		3	0.004 s
DELETE FROM STUDENTS WHERE USERNAME = 'vino'		3	0.004 s

Type here to search

ENG 10:46 PM IN 10/19/2022

The screenshot shows the IBM Db2 on Cloud console interface, specifically the 'Tables' view. The top navigation bar includes links for 'Inbox (2,443)', 'Obtain an IBM Cloud Feature Co...', 'Service Details - IBM Cloud', and 'IBM Db2 on Cloud'. The main content area is divided into two tabs: 'Load Data' and 'Load History'. The 'Tables' tab is active, displaying a table named 'PRF36971.STUDENTS'. The table has four columns: 'USERNAME', 'ROLL NUMBER', 'EMAIL ID', and 'PASSWORD'. The table contains two rows of data: one for 'kiki' with roll number '782' and email 'krishnakiki68@gmail.com', and another for 'kiki' with roll number '782' and email 'krishnakiki68@gmail.com'. The password for both rows is 'apr123'. The table is displayed in a grid format. The bottom of the screenshot shows the Windows taskbar with various application icons and the system clock indicating 'ENG 10:49 PM IN 10/19/2022'.

IBM Db2 on Cloud

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

PRF36971.STUDENTS

Back

Export to CSV

USERNAME	ROLL NUMBER	EMAIL ID	PASSWORD
kiki	782	krishnakiki68@gmail.com	apr123
kiki	782	krishnakiki68@gmail.com	apr123

Type here to search

ENG 10:49 PM IN 10/19/2022

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>Smart Fashion 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:-

login!'. The browser window shows the file path 'D:/REGFORM/Register.html' and a Windows taskbar at the bottom with the time '10:58 PM' and date '10/19/2022'."/>

Register Form

vinotha

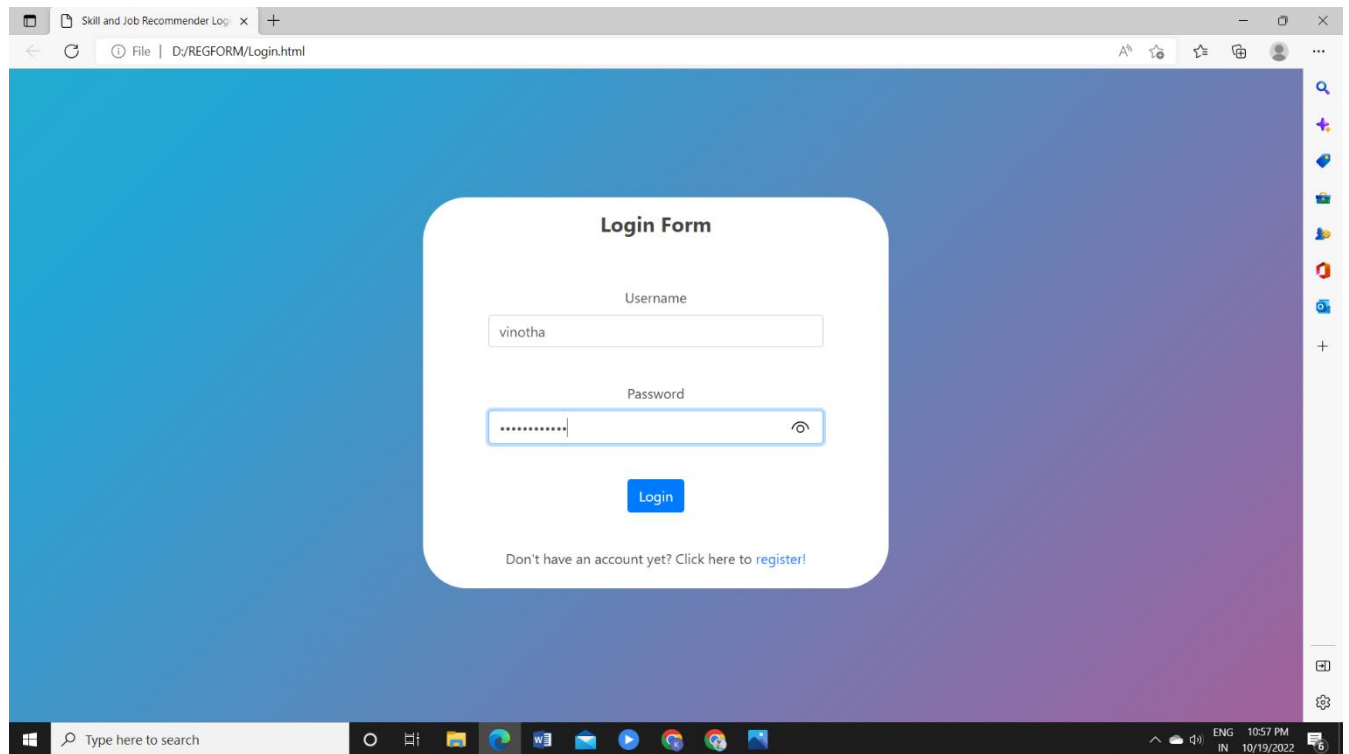
vinothachoudri@gmail.com

.....

Register

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


LOGIN PAGE:-



The image shows a web browser window with a single tab titled "Skill and Job Recommender Logi". The address bar shows the file path "D:/REGFORM/Login.html". The page has a blue and purple gradient background. In the center is a white rounded rectangle containing the "Login Form".

Login Form

Username

Password
 

[Login](#)

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

The Windows taskbar is visible at the bottom, showing the search bar, task view button, and several application icons. The system tray on the right shows the date and time as "10:57 PM 10/15/2022".

WELCOME PAGE:-

