

Assignment -2

IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	DHARANI M
Student Roll Number	613019205007
Maximum Marks	2 Marks

Questions:

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

The screenshot shows the IBM Db2 on Cloud console interface. The 'Tables' tab is selected, and the 'STUDENT' table is listed under the 'BBR97922' schema. The 'Table definition' panel on the right shows the following details:

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 console also shows a 'New table' button and a 'View data' button. The bottom of the screen displays the Windows taskbar with various application icons and the system clock showing 2:33 PM on 10/21/2022.

- 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 'BBR97922'. The main area displays a script editor with the following SQL statement:

```
1 INSERT INTO STUDENT values ('dhar','14','dhar@gmail.com','dhar@');
```

Below the script editor, the 'History' tab shows the execution details:

Script	Date	Status	Runtime
Untitled - 1	Oct 21, 2022 2:36:21 PM	✓ 1	0.007 s
INSERT INTO STUDENT values ('dhar','14','dhar@gmail.com','dhar@...		✓	0.007 s

The bottom of the screen shows a Windows taskbar with various application icons and a system clock indicating 2:36 PM on 10/21/2022.

The screenshot shows the IBM Db2 on Cloud console interface, specifically the 'Tables' view for the 'BBR97922.STUDENT' table. The table structure is displayed as follows:

USERNAME	ROLL NUMBER	EMAIL ID	PASSWORD
dhar	14	dhar@gmail.com	dhar@

Buttons for 'Back' and 'Export to CSV' are visible. The bottom of the screen shows a Windows taskbar with various application icons and a system clock indicating 3:13 PM on 10/21/2022.

DELETE TABLE:-

The screenshot shows the IBM Db2 on Cloud console interface. On the left, the 'Data objects' tab is selected, showing a table named 'BBR97922'. The main area displays a script editor with the following SQL commands:

```
1 INSERT INTO STUDENT values ('dhar','14','dhar@gmail.com','dhar@');
2 INSERT INTO STUDENT values ('var','25','var@gmail.com','var@');
3 DELETE FROM STUDENT WHERE USERNAME = 'dhar';
```

Below the script editor, the 'History' tab is active, showing a table of execution history:

Script	Date	Status	Runtime
Untitled - 1	Oct 21, 2022 2:41:33 PM	✓ 3	0.018 s
INSERT INTO STUDENT values ('dhar','14','dhar@gmail.com','dha...		✓	0.007 s
INSERT INTO STUDENT values ('var','25','var@gmail.com','var@')		✓	0.005 s
DELETE FROM STUDENT WHERE USERNAME = 'dhar'		✓	0.006 s
Untitled - 1	Oct 21, 2022 2:36:21 PM	✓ 1	0.007 s

The screenshot shows the IBM Db2 on Cloud console interface, specifically the 'Tables' tab. The table 'BBR97922.STUDENT' is selected. The table structure is displayed as follows:

USERNAME	ROLL NUMBER	EMAIL ID	PASSWORD
var	25	var@gmail.com	var@

Buttons for 'Back' and 'Export to CSV' are visible. The console also shows the 'Load Data' and 'Load History' tabs.

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=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'^[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>Plasma donor application 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/fontawesome/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>Plasma Donor Application 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/favicon32x32.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/fontawesome/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;
    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;
} body
{
    color: #444444;      background:linear-gradient(-45deg, #EE7752, #E73C7E,
#23A6D5, #23D5AB);      background-size: 400% 400%;      position: relative;
display: flex;      flex-direction: column;

```

```
padding-bottom: 10px;
```

```
}
```

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

```
}
```

OUTPUT:- REGISTRATION PAGE:-

login!'."/>

Register Form

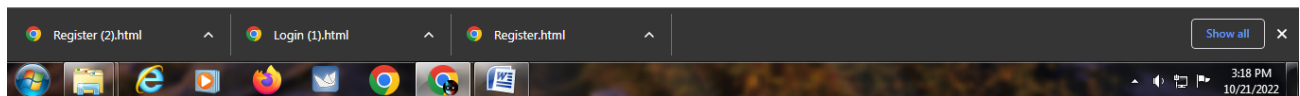
Dharani M

dharaniboopathim@gmail.com

.....

[Register](#)

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



LOGIN PAGE:-

register!'."/>

Login Form

Username

dharaniboopathim@gmail.com

Password

.....

[Login](#)

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



WELCOME PAGE:-

