

Assignment -2

IBM CLOUD DB2

Assignment Date	29 September 2022
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Maximum Marks	2 Marks

Questions:

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

The screenshot shows the IBM Db2 on Cloud web interface. The 'Tables' tab is selected, displaying a list of tables. The 'STUDENT' table is highlighted, and its definition is shown on the right. The table has 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

The interface also shows a search bar for schemas or tables, a 'New table' button, and a 'View data' button for the selected table.

- Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

The screenshot shows the IBM Db2 on Cloud console. On the left, the 'Data objects' panel lists a table named 'MBB69331'. The main area displays a script editor with the following SQL statement:

```
1 INSERT INTO STUDENT values ('kiru','55','kiru@gmail.com','kiru@');
```

Below the script editor is a 'History' table showing the execution details:

Script	Date	Status	Runtime
Untitled - 1	Oct 20, 2022 12:53:44 PM	✓ 1	0.008 s
INSERT INTO STUDENT values ('kiru','55','kiru@gmail.com','kiru@...		✓	0.008 s

The screenshot shows the IBM Db2 on Cloud console displaying the table 'MBB69331.STUDENT'. The table structure and data are as follows:

USERNAME	ROLL NUMBER	EMAIL ID	PASSWORD
kiru	55	kiru@gmail.com	kiru@

DELETE TABLE:-

IBM Db2 on Cloud

Data objects My script

Filter objects

MBB69331

*Untitled - 1

```
1 INSERT INTO STUDENT values ('kiru','55','kiru@gmail.com','kiru@');
2 INSERT INTO STUDENT values ('logo','35','logo@gmail.com','logo@');
3 DELETE FROM STUDENT WHERE USERNAME = 'kiru';
```

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Oct 20, 2022 12:57:16 PM	3	0.020 s
INSERT INTO STUDENT values ('kiru','55','kiru@gmail.com','kir...			0.006 s
INSERT INTO STUDENT values ('logo','35','logo@gmail.com','log...			0.006 s
DELETE FROM STUDENT WHERE USERNAME = 'kiru'			0.008 s
Untitled - 1	Oct 20, 2022 12:55:40 PM	2	0.011 s

IBM Db2 on Cloud

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

MBB69331.STUDENT

Back

Export to CSV

USERNAME	ROLL NUMBER	EMAIL ID	PASSWORD
logo	35	logo@gmail.com	logo@
logo	35	logo@gmail.com	logo@

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=k9b92696;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-Z]+', 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;

```

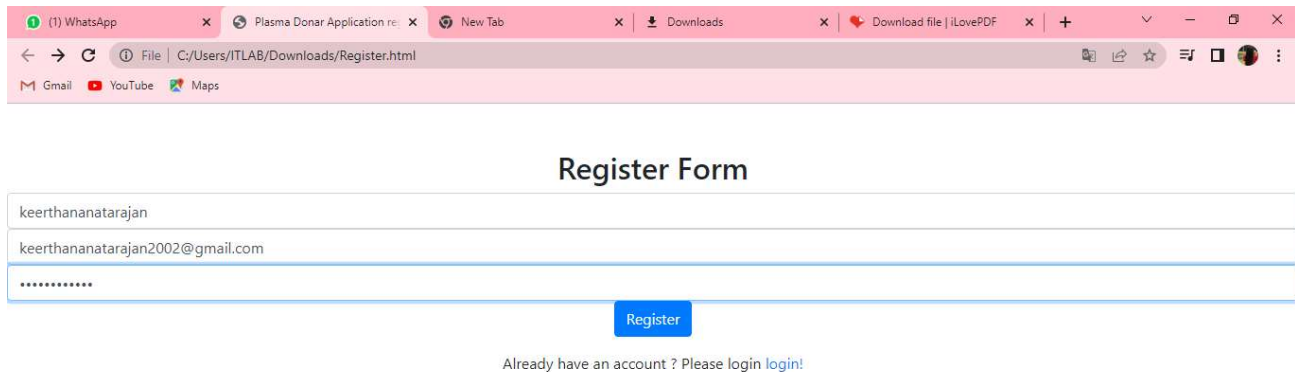
```
padding-bottom: 10px;
```

```
}
```

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

```
}
```

OUTPUT:- REGISTRATION PAGE:-



Register Form

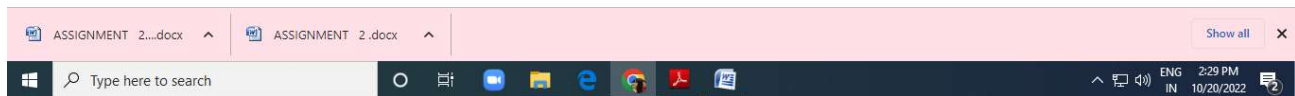
Username: keerthanatarajan

Email: keerthanatarajan2002@gmail.com

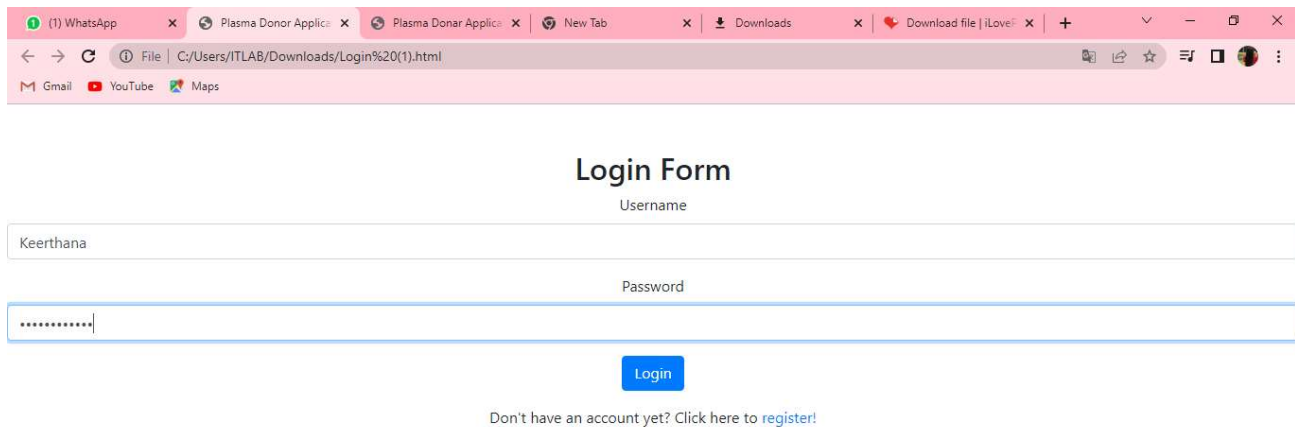
Password:

[Register](#)

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



LOGIN PAGE:-



Login Form

Username: Keerthana

Password:

[Login](#)

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



WELCOME PAGE:-

