

Assignment -2

IBM CLOUD DB2

Assignment Date	29 September 2022
Team ID	PNT2022TMID53909
Student Name	Harini P
Student Roll Number	95071915012
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 console. The top section shows the 'Resource usage' graph for the last hour, indicating 0% storage usage. The bottom section shows the 'Load Data' operation, where data is being loaded from a CSV file into the 'SMART_FASHION_RECOMMENDER_TABLE'. The data is organized into columns: REGISTER_NUMBER, NAME, EMAIL, PHONE, and PASSWORD.

REGISTER_NUMBER	NAME	EMAIL	PHONE	PASSWORD
1	John Milton S	johnmiltons.ug19.cs@franciscxavier.ac.in	8870128916	john
2	Saravana Muthu Babu P	saravanamuthubabup.ug19.cs@franciscxavier.ac.in	8754717133	babu
3	Sunil Raja A	sunilrajaa.ug19.cs@franciscxavier.ac.in	6383970186	sunil
4	Harini P	harinip.ug19.it@franciscxavier.ac.in	6385434878	harini

IBM Db2 on Cloud

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

Load details

My computer smart_fashion_recommender.csv Target JDF06184.SMART_FASHION_RECOMMEND...

View Table Load More Data

Status Settings

4 Rows read 4 Rows loaded 0 Rows rejected

Start time 11/15/2022 10:12:34 AM End time 11/15/2022 10:12:49 AM

The data load job succeeded.
You can now work with your data.

Errors Warnings

No errors

IBM Db2 on Cloud

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

Find schemas or tables Refresh

Schemas

Name	Type	Tables
JDF06184	User	1

Total: 1, selected: 1

Tables

Name	Schema	Properties
SMART_FASHION_RECO...	JDF06184	...

Total: 1, selected: 0

IBM Db2 on Cloud

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

Find schemas or tables Refresh

Tables

Name	Schema	Properties
SMART_FASHION_RECO...	JDF06184	...

Total: 1, selected: 0

Table definition

SMART_FASHION_RECOMMENDER_TABLE

Name	Data type	Nullable	Length	Scale
REGISTER_NUMBER	BIGINT	Y		0
NAME	VARCHAR	Y	21	0
EMAIL	VARCHAR	Y	46	0
PHONE	BIGINT	Y		0
PASSWORD	VARCHAR	Y	6	0

View data

IBM Db2 on Cloud

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

JDF06184.SMART_FASHION_RECOMMENDER_TABLE

Export to CSV

REGISTER_NUMBER	NAME	EMAIL	PHONE	PASSWORD
95071912084	Saravana Muthu Babu P	saravanamuthubabup.ug19.cs@franciscxavier.ac.in	8754717133	babu
95071912100	Sunil Raja A	sunilrajaa.ug19.cs@franciscxavier.ac.in	6383970186	sunil
95071912302	John Milton S	johnmiltons.ug19.cs@franciscxavier.ac.in	8870128916	john
95071915012	Harini P	harinip.ug19.it@franciscxavier.ac.in	6385434878	harini

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

IBM Db2 on Cloud

Data objects Saved objects

Filter objects

JDF06184

Untitled - 2

```
1 INSERT INTO SMART_FASHION_RECOMMENDER_TABLE VALUES ('18', 'Virat', 'virat.ug19.cs@franciscxavier.ac.in', '9876543210', 'v
```

Run all

History

Script	Date	Status	Runtime
Untitled - 2	Nov 15, 2022 10:15:19 AM	✓ 1	0.004 s
INSERT INTO SMART_FASHION_RECOMMENDER_TABLE VALUES ('18', 'Virat', 'virat.ug...		✓	0.004 s

IBM Db2 on Cloud

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

JDF06184.SMART_FASHION_RECOMMENDER_TABLE

Export to CSV

REGISTER_NUMBER	NAME	EMAIL	PHONE	PASSWORD
18	Virat	virat.ug19.cs@franciscxavier.ac.in	9876543210	virat
95071912084	Saravana Muthu Babu P	saravanamuthubabup.ug19.cs@franciscxavier.ac.in	8754717133	babu
95071912100	Sunil Raja A	sunilrajaa.ug19.cs@franciscxavier.ac.in	6383970186	sunil
95071912302	John Milton S	johnmiltons.ug19.cs@franciscxavier.ac.in	8870128916	john
95071915012	Harini P	harinip.ug19.it@franciscxavier.ac.in	6385434878	harini

DELETE TABLE:

The screenshot shows the IBM Db2 on Cloud SQL editor interface. The main window displays a script titled "Untitled - 2" with the following SQL statement:

```
1 DELETE FROM SMART_FASHION_RECOMMENDER_TABLE WHERE REGISTER_NUMBER = 18;
```

The "History" tab at the bottom shows the execution history of the script:

Script	Date	Status	Runtime
Untitled - 2	Nov 15, 2022 10:17:44 AM	✓ 1	0.097 s
DELETE FROM SMART_FASHION_RECOMMENDER_TABLE WHERE REGISTER_NUMBER = 18		✓	0.097 s
Untitled - 2	Nov 15, 2022 10:15:19 AM	✓ 1	0.084 s
INSERT INTO SMART_FASHION_RECOMMENDER_TABLE VALUES ('18', 'Virat', 'virat.ug-		✓	0.084 s

The screenshot shows the IBM Db2 on Cloud SQL editor interface displaying the contents of the table JDF06184.SMART_FASHION_RECOMMENDER_TABLE. The table has the following columns: REGISTER_NUMBER, NAME, EMAIL, PHONE, and PASSWORD. The data is as follows:

REGISTER_NUMBER	NAME	EMAIL	PHONE	PASSWORD
95071912084	Saravana Muthu Babu P	saravanamuthubabu.ug19.cs@franciscxavier.ac.in	8754717133	babu
95071912100	Sunil Raja A	sunilrajaa.ug19.cs@franciscxavier.ac.in	6383970186	sunil
95071912302	John Milton S	johnmiltons.ug19.cs@franciscxavier.ac.in	8870128916	john
95071915012	Harini P	harinip.ug19.it@franciscxavier.ac.in	6385434878	harini

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=bludb;HOSTNAME=ba99a9e6-d59e-4883-8fc0-
d6a8c9f7a08f.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=31321;USERNAM
E=jdf06184;PASSWORD=vmxvhG6ebxrzRw0c;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="/static/css/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>Smart Fashion 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="/static/css/style2.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 {
    background-color: aqua !important;
    display: flex;
    flex-direction: column;
    align-items: center;
    justify-content: center;
}

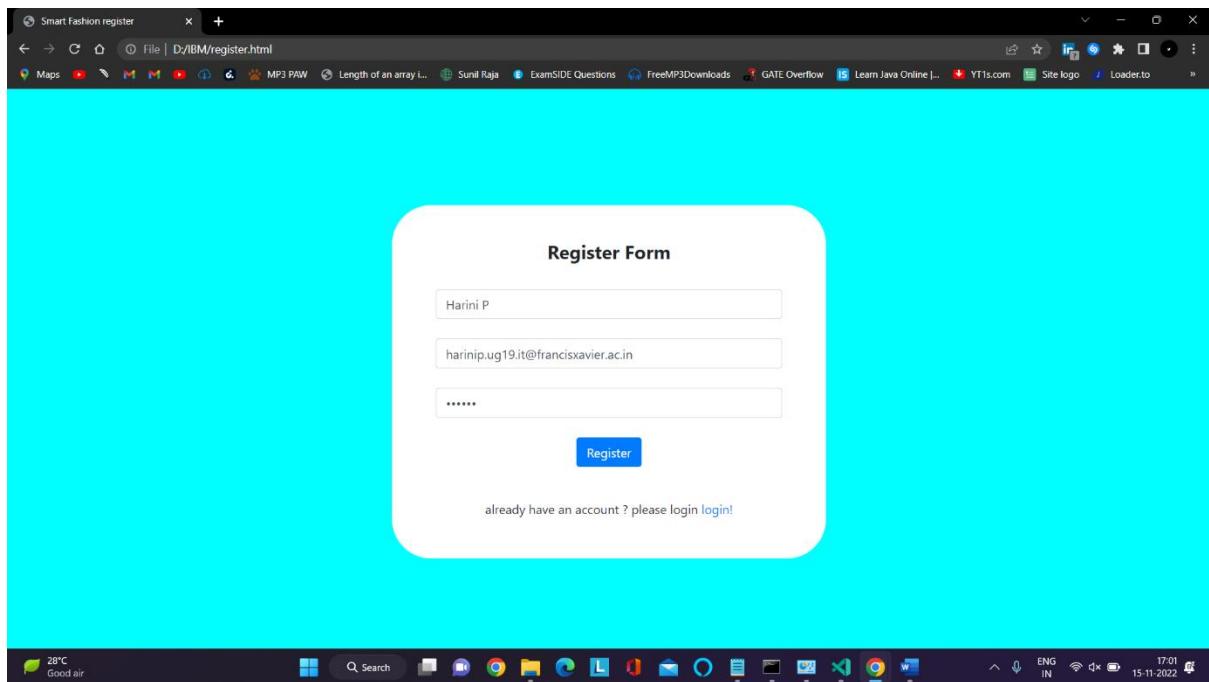
form {
    display: flex;
    flex-direction: column;
    align-items: center;
    justify-content: center;
    background-color: white;
    width: 40%;
    height: 450px;
    border-radius: 50px;
    margin: 100px;
    gap: 25px;
}

```

```
}  
  
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 titled "Smart Fashion register" with the address bar displaying "File | D:/IBM/register.html". The page has a solid blue background. In the center is a white rounded rectangle containing the "Register Form". The form has three input fields: the first contains "Harini P", the second contains "harinip.ug19.it@francixavier.ac.in", and the third contains six asterisks. Below the fields is a blue "Register" button. At the bottom of the white box, it says "already have an account ? please login [login!](#)". The Windows taskbar at the bottom shows the date as 15-11-2022 and the time as 17:01.

Smart Fashion register

File | D:/IBM/register.html

Register Form

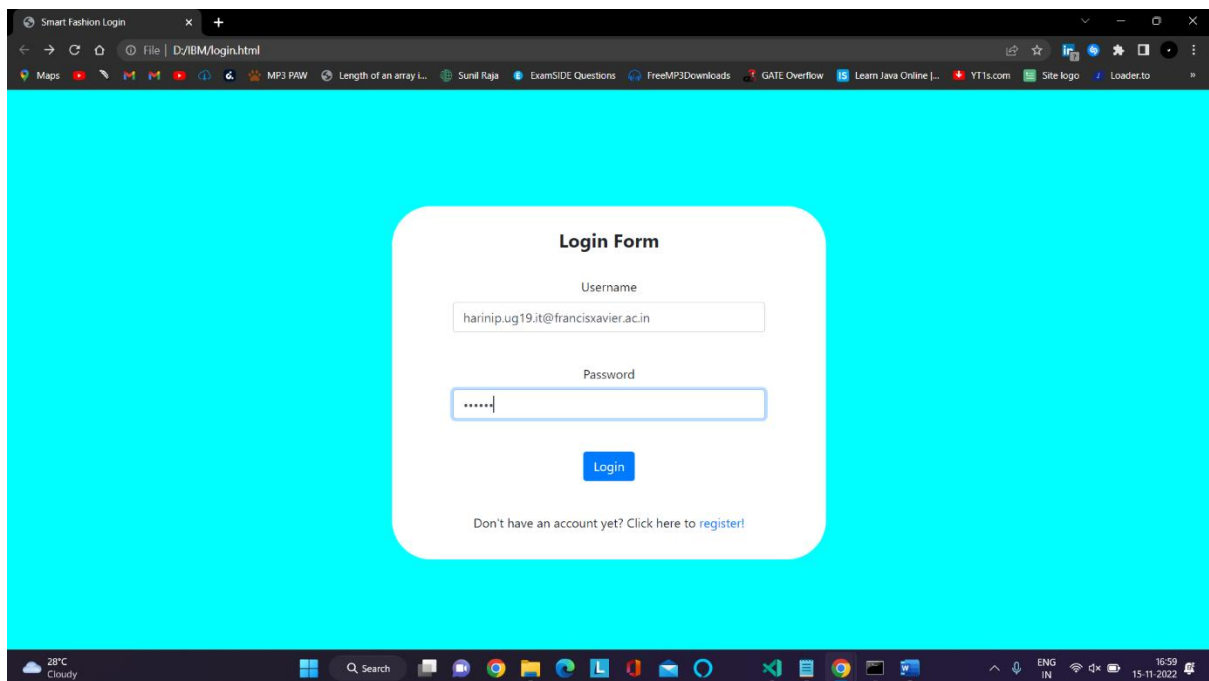
Harini P

harinip.ug19.it@francixavier.ac.in

Register

already have an account ? please login [login!](#)

Login Page:



The screenshot shows a web browser window titled "Smart Fashion Login" with the address bar displaying "File | D:/IBM/login.html". The page has a solid blue background. In the center is a white rounded rectangle containing the "Login Form". The form has two input fields: the first is labeled "Username" and contains "harinip.ug19.it@francixavier.ac.in", and the second is labeled "Password" and contains six asterisks. Below the fields is a blue "Login" button. At the bottom of the white box, it says "Don't have an account yet? Click here to [register!](#)". The Windows taskbar at the bottom shows the date as 15-11-2022 and the time as 16:59.

Smart Fashion Login

File | D:/IBM/login.html

Login Form

Username

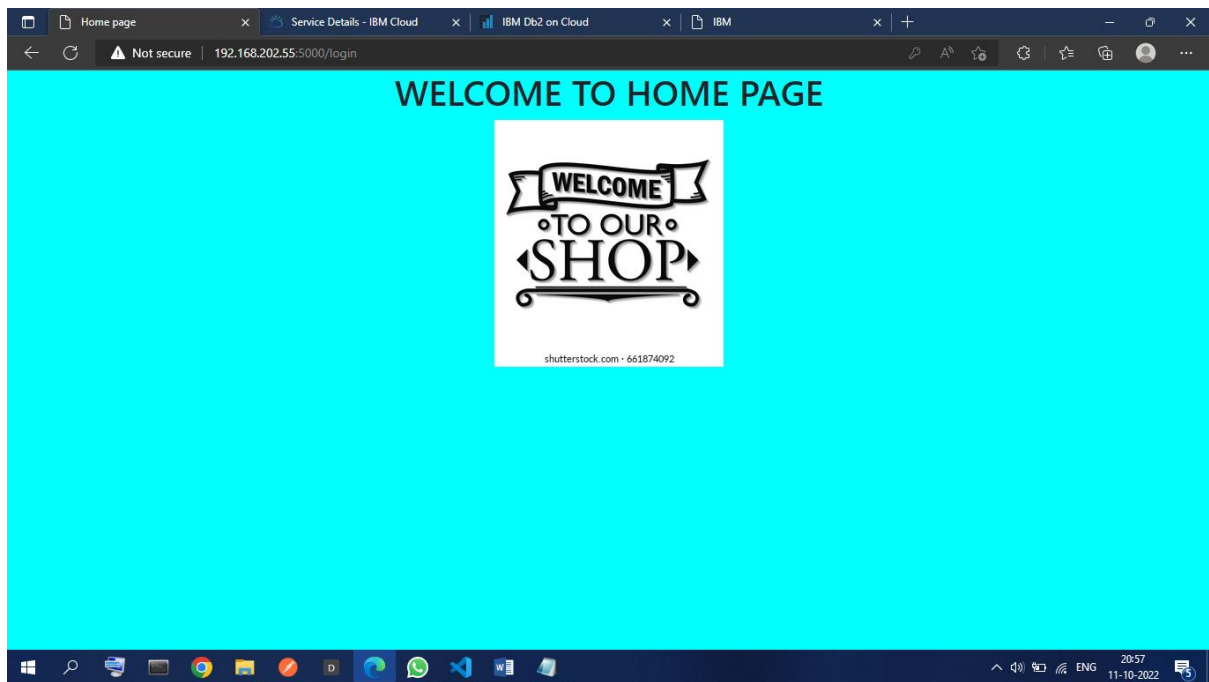
harinip.ug19.it@francixavier.ac.in

Password

Login

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

Welcome Page:



Data Base Table:

