

Assignment -2

IBM CLOUD DB2

Assignment Date	29 September 2022
Team ID	PNT2022TMID53909
Student Name	Saravana Muthu Babu P
Student Roll Number	95071912084
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 a 'Load Data' task in progress, loading data from a CSV file into the 'SMART_FASHION_RECOMMENDER_TABLE'. The task is currently in the 'Define' stage.

Resource usage graph:

- Y-axis: Storage usage (%)
- X-axis: Time (09:12 AM to 10:12 AM)
- Legend: Storage (DM / DM) current value

Load Data task details:

- Source: smart_fashion_recommender.csv
- Target: JDF06184.SMART_FASHION_RECOMMENDER_TABLE
- Code page: 1208 (UTF-8)
- Separator: ,
- Header in first row: ☒
- Time & date format: ☐
- Detect data types: ☐

Data loaded:

REGISTER_NUMBER	NAME	EMAIL	PHONE	PASSWORD
95071912302	John Milton S	johnmiltons.ug19.cs@franciscxavier.ac.in	8870126916	john
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
95071915012	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

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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

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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@francixavier.ac.in	8754717133	babu
95071912100	Sunil Raja A	sunilrajaa.ug19.cs@francixavier.ac.in	6383970186	sunil
95071912302	John Milton S	johnmiltonts.ug19.cs@francixavier.ac.in	8870128916	john
95071915012	Harini P	harinip.ug19.it@francixavier.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@francixavier.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@francixavier.ac.in	9876543210	virat
95071912084	Saravana Muthu Babu P	saravanamuthubabup.ug19.cs@francixavier.ac.in	8754717133	babu
95071912100	Sunil Raja A	sunilrajaa.ug19.cs@francixavier.ac.in	6383970186	sunil
95071912302	John Milton S	johnmiltonts.ug19.cs@francixavier.ac.in	8870128916	john
95071915012	Harini P	harinip.ug19.it@francixavier.ac.in	6385434878	harini

DELETE TABLE:

The screenshot shows the IBM Db2 on Cloud SQL editor interface. The 'Data objects' panel on the left lists the database 'JDF06184'. The main editor area contains a single SQL statement: `DELETE FROM SMART_FASHION_RECOMMENDER_TABLE WHERE REGISTER_NUMBER = 18;`. The 'History' panel at the bottom displays a table of executed scripts.

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 with the 'Tables' tab selected. The table 'JDF06184.SMART_FASHION_RECOMMENDER_TABLE' is displayed. An 'Export to CSV' button is visible in the top right corner of the table view.

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;
}

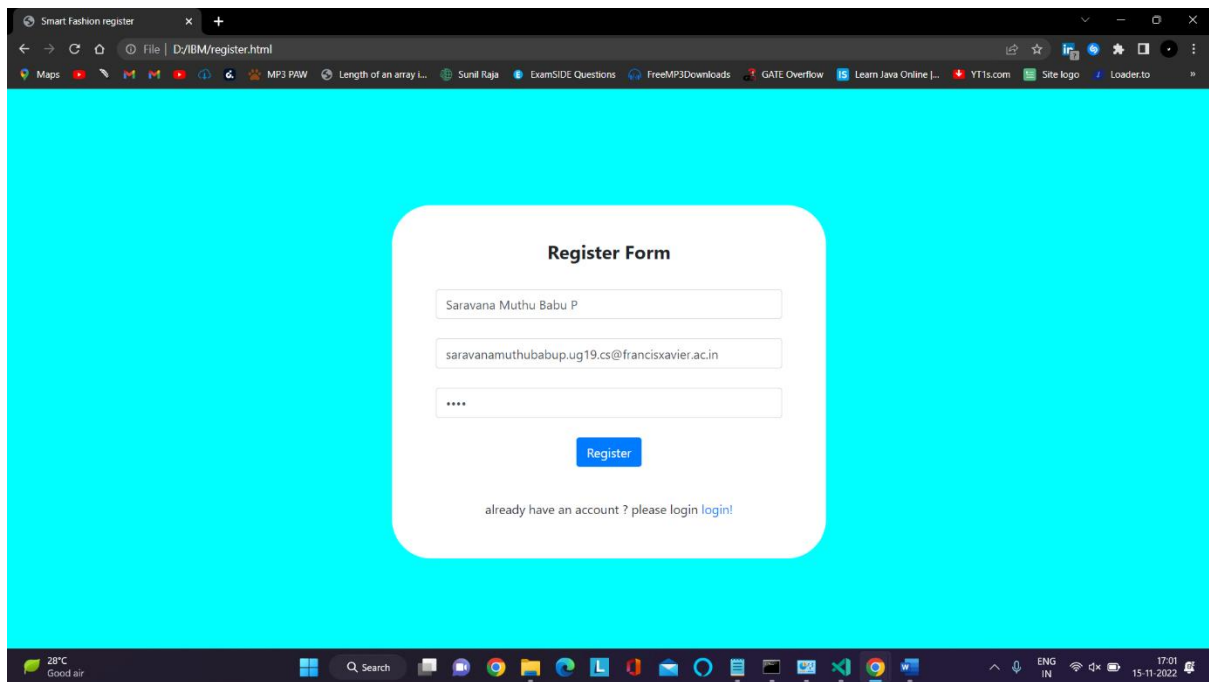
form {
    display: flex;
    flex-direction: column;
    align-items: center;
    justify-content: center;
    background-color: white;
    width: 40%;
    height: 450px;
    border-radius: 50px;
    margin: 100px;
    gap: 25px;
}

```

```
}  
  
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 with the title "Smart Fashion register". The address bar shows the file path "D:/IBM/register.html". The page has a solid blue background. In the center, there is a white rounded rectangle containing the "Register Form". The form has three input fields: the first contains "Saravana Muthu Babu P", the second contains "saravanamuthubabup.ug19.cs@franciscxavier.ac.in", and the third contains four asterisks. Below the inputs 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

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Register Form

Saravana Muthu Babu P

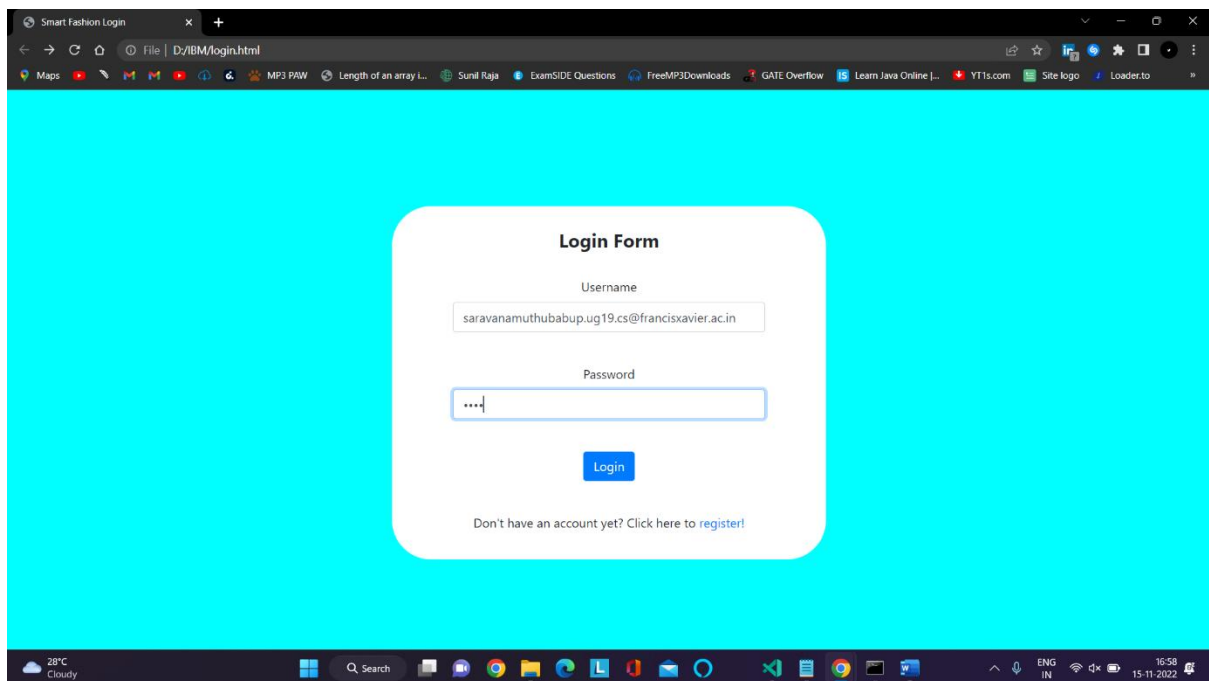
saravanamuthubabup.ug19.cs@franciscxavier.ac.in

Register

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

28°C Good air Search 15-11-2022 17:01

Login Page:



The screenshot shows a web browser window with the title "Smart Fashion Login". The address bar shows the file path "D:/IBM/login.html". The page has a solid blue background. In the center, there is a white rounded rectangle containing the "Login Form". The form has two input fields: the first is labeled "Username" and contains "saravanamuthubabup.ug19.cs@franciscxavier.ac.in", and the second is labeled "Password" and contains four asterisks. Below the inputs 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 16:58.

Smart Fashion Login

File | D:/IBM/login.html

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Login Form

Username

saravanamuthubabup.ug19.cs@franciscxavier.ac.in

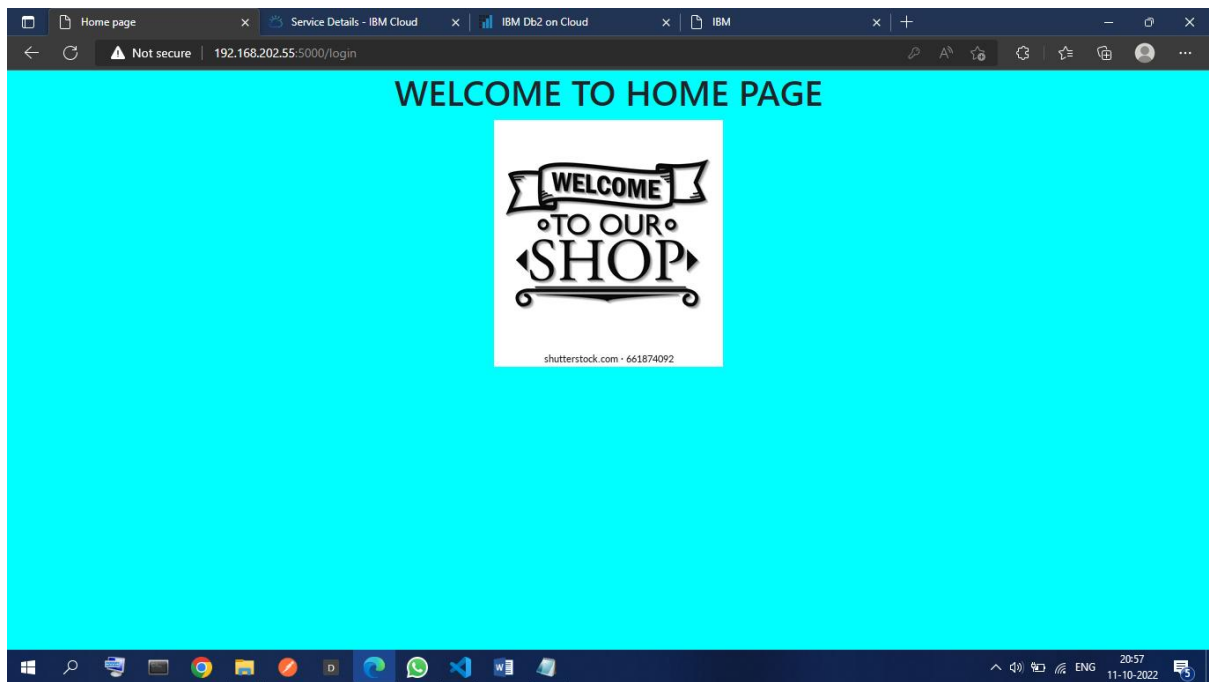
Password

Login

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

28°C Cloudy Search 15-11-2022 16:58

Welcome Page:



Data Base Table:

