

Assignment-2

Assignment Date	29 September 2022
Student Name	Purushothaman.C
Student Roll Number	511319205020
Maximum Marks	2 Marks

Questions:

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

The screenshot shows the IBM Db2 on Cloud web interface. The 'Tables' tab is selected, displaying a list of tables. A table named 'USER' is visible under the schema 'VFB94483'. The 'Table definition' panel on the right shows the structure of the 'USER' table:

Name	Data type	Nullable	Length	Scale
USERNAME	CHAR	Y	20	0
ROLLNUMBER	INTEGER	Y		0
EMAIL	CHAR	Y	25	0
PASSWORD	VARCHAR	Y	32	0

2. Perform Update, Delete Queries with user table.

Update Table:

The screenshot shows the IBM Db2 on Cloud web interface with a SQL script being executed. The script is as follows:

```
1 INSERT INTO USER VALUES('Purushoth', '20', 'purushoth012@gmail.com', '09876')
2
```

The 'History' panel at the bottom shows the execution results:

Script	Date	Status	Runtime
Untitled - 1	Oct 25, 2022 8:25:03 PM	✓ 1	0.007 s
INSERT INTO USER VALUES('Purushoth', '20', 'purushoth012@gmail.co...		✓	0.007 s

Service Details - IBM Cloud x IBM Db2 on Cloud x +

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/cm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F0c63d1ab7d6245198ebe3e7ae2cac...

IBM Db2 on Cloud

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

VFB94483.USER Back

Export to CSV

USERNAME	ROLLNUMBER	EMAIL	PASSWORD
Purushoth	20	purushoth012@gmail.com	09876
Steve	21	steve012@gmail.com	54321

Type here to search 20:26 25-10-2022

Delete Table:

Service Details - IBM Cloud x IBM Db2 on Cloud x +

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/cm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F0c63d1ab7d6245198ebe3e7ae2cac...

IBM Db2 on Cloud

Data objects My script

Filter objects

VFB94483

*Untitled - 1 x + Beta Classic

Run all

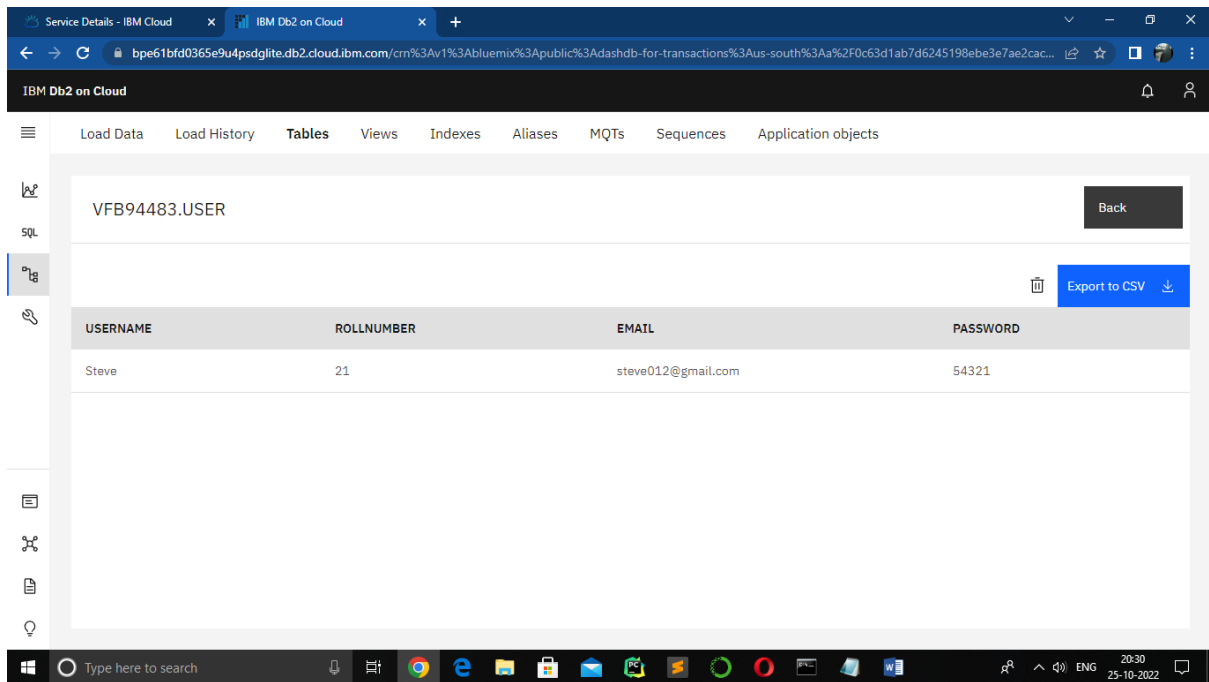
```
1 DELETE FROM USER WHERE USERNAME='Purushoth'
```

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Oct 25, 2022 8:29:52 PM	✓ 1	0.006 s
DELETE FROM USER WHERE USERNAME='Purushoth'		✓	0.006 s

Type here to search 20:30 25-10-2022



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=bludb;HOSTNAME=6667d8e9-9d4d-4ccb-ba32-21da3bb5aafc.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=30376;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=vfb94483;PWD=8y9yluoqSolgoUFu",'')
```

```
@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 user 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 user 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 user 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\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\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 {
  background-image:url(https://a-assign2.s3.jp-tok.cloud-object-
storage.appdomain.cloud/img8.jpg);
  background-color: #cccccc;
  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;
}

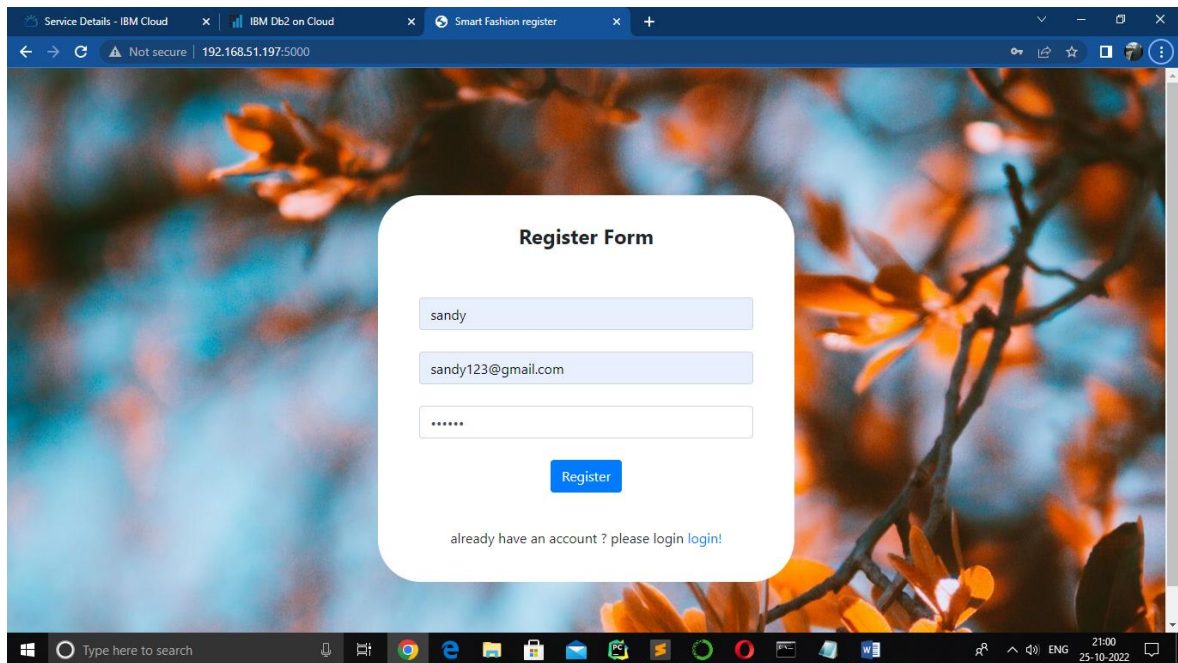
.form-text-h2 {

font-size: x-large;

padding-top: 10px;
}
```

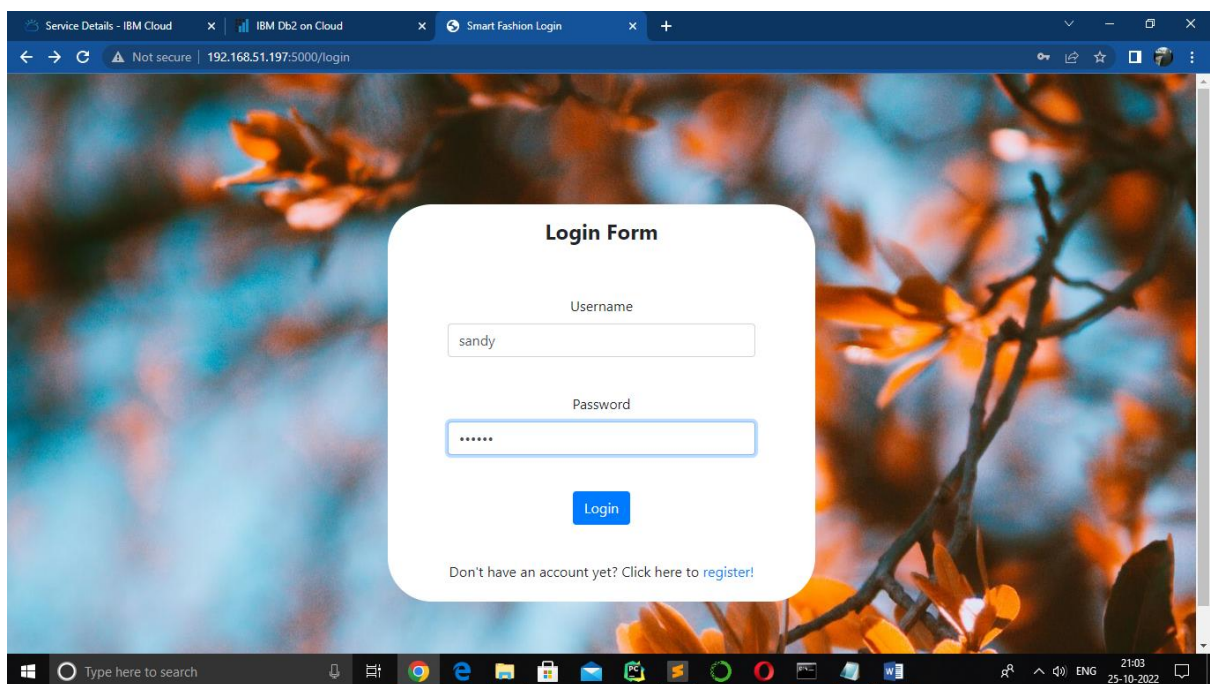
Output:

Registration Page:



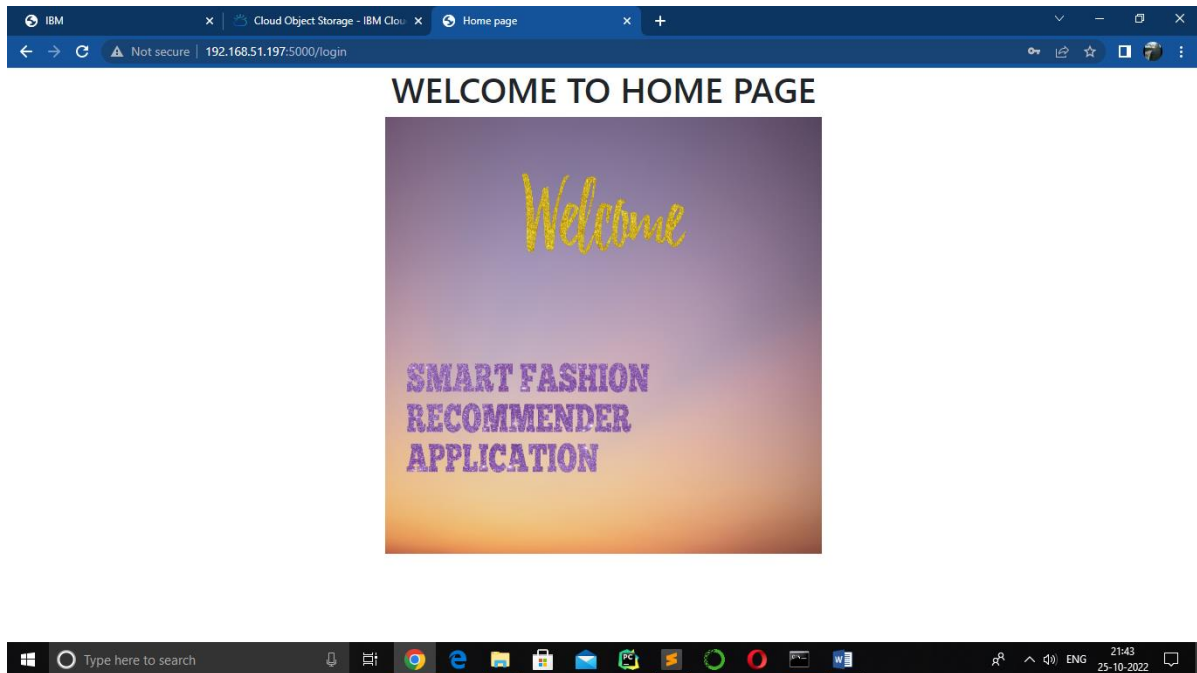
The screenshot shows a web browser window with the title "Smart Fashion register". The address bar shows "192.168.51.197:5000". The page features a "Register Form" with a background image of orange and blue foliage. The form contains three input fields: a username field with "sandy", an email field with "sandy123@gmail.com", and a password field with masked characters "*****". A blue "Register" button is positioned below the fields. At the bottom of the form, there is a link: "already have an account ? please login [login!](#)".

Login Page:



The screenshot shows a web browser window with the title "Smart Fashion Login". The address bar shows "192.168.51.197:5000/login". The page features a "Login Form" with a background image of orange and blue foliage. The form contains two input fields: a "Username" field with "sandy" and a "Password" field with masked characters "*****". A blue "Login" button is positioned below the fields. At the bottom of the form, there is a link: "Don't have an account yet? Click here to [register!](#)".

Welcome Page:



Data Base Table:

