

Assignment -2

IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	Dinesh V
Student Roll Number	511319205005
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 web interface. The 'Tables' tab is selected, showing a list of tables. The 'USER' table is highlighted. The 'Table definition' panel on the right provides details about the table's structure:

Name	Data type	Nullable	Length	Scale
USERNAME	CHAR	Y	21	0
ROLLNUMBER	INTEGER	Y		0
EMAIL	CHAR	Y	18	0
PASSWORD	VARCHAR	Y	32	0

A 'View data' button is located at the bottom of the table definition panel.

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

The screenshot shows the IBM Db2 on Cloud console. On the left, the 'Data objects' pane shows a table named 'SSJ38990'. The main editor area shows a script titled '*Untitled - 1' with the following SQL statement: `INSERT INTO USER VALUES('DD',05,'abcd123@gmail.com','1234')`. The 'History' pane at the bottom shows the execution of this script on Oct 25, 2022 at 10:22:06 PM, with a status of 'Success' and a runtime of 0.011 s.

Script	Date	Status	Runtime
Untitled - 1	Oct 25, 2022 10:22:06 PM	Success	0.011 s
INSERT INTO USER VALUES('DD',05,'abcd123@gmail.com','1234')		Success	0.011 s

The screenshot shows the IBM Db2 on Cloud console displaying the contents of the 'SSJ38990.USER' table. The table has four columns: 'USERNAME', 'ROLLNUMBER', 'EMAIL', and 'PASSWORD'. The data is as follows:

USERNAME	ROLLNUMBER	EMAIL	PASSWORD
DD	5	abcd123@gmail.com	1234
steve	20	sss123@gmail.com	5678

DELETE TABLE:-

The screenshot shows the IBM Db2 on Cloud console. On the left, the 'Data objects' tab is active, displaying a search bar and a list of objects including 'SSJ38990'. The main area shows a script editor with a single line of SQL: `DELETE FROM USER WHERE ROLLNUMBER = 20`. Below the script editor, the 'History' tab is selected, showing a table of executed scripts.

Script	Date	Status	Runtime
Untitled - 1	Oct 25, 2022 10:20:28 PM	✓ 1	0.008 s
DELETE FROM USER WHERE ROLLNUMBER = 20		✓	0.008 s
Untitled - 1	Oct 25, 2022 10:25:42 PM	✓ 1	0.010 s
INSERT INTO USER VALUES('steve', 20, 'sss123@gmail.com', '5678')		✓	0.010 s
Untitled - 1	Oct 25, 2022 10:22:06 PM	✓ 1	0.011 s

The screenshot shows the IBM Db2 on Cloud console with the 'Tables' tab selected. The table 'SSJ38990.USER' is displayed. The table structure is shown with columns: USERNAME, ROLLNUMBER, EMAIL, and PASSWORD. The table contains one row of data.

USERNAME	ROLLNUMBER	EMAIL	PASSWORD
DD	5	abcd123@gmail.com	1234

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=b70af05b-76e4-4bca-a1f5-
23dbb4c6a74e.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32716;SECURITY=SSL;S
SLServerCertificate=DigiCertGlobalRootCA.crt;UID=ssj38990;PWD=Hx1Yb6uGpN7HxBRW","")
@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\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>
  <!-- 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\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-image: url(https://1unique.s3.jp-tok.cloud-object-
storage.appdomain.cloud/w1.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;

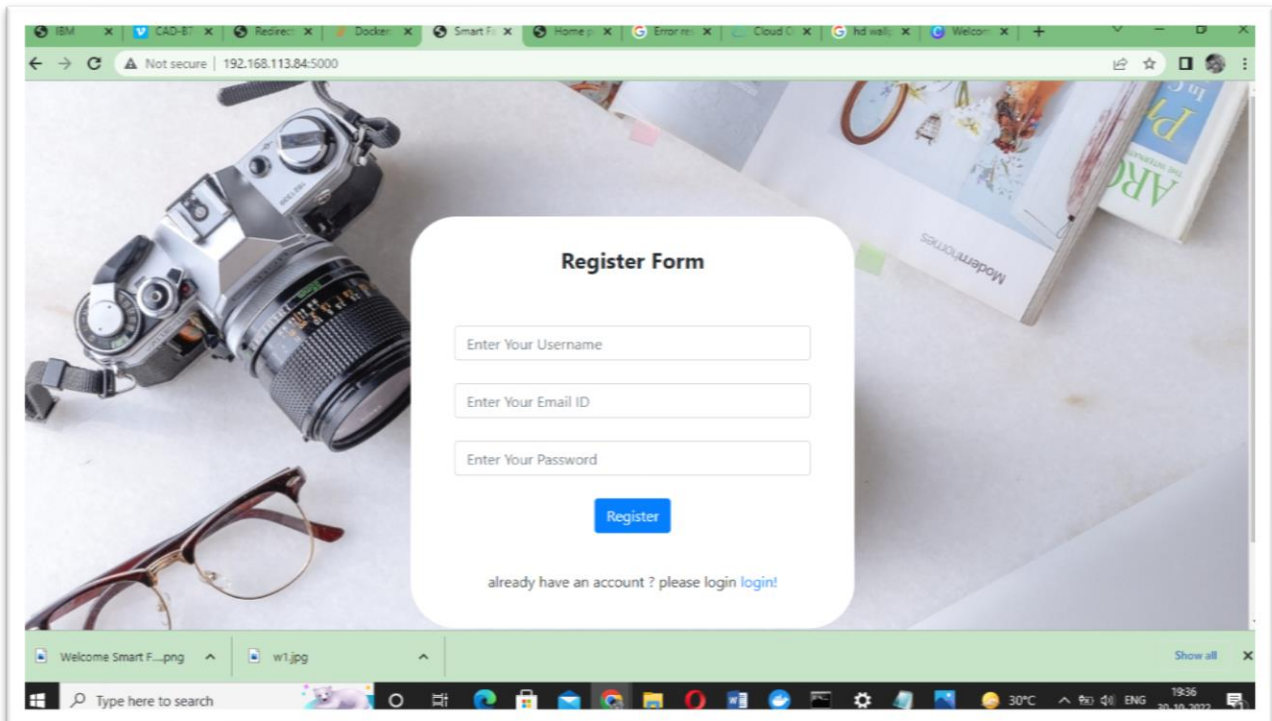
  width: 90%;
}
```

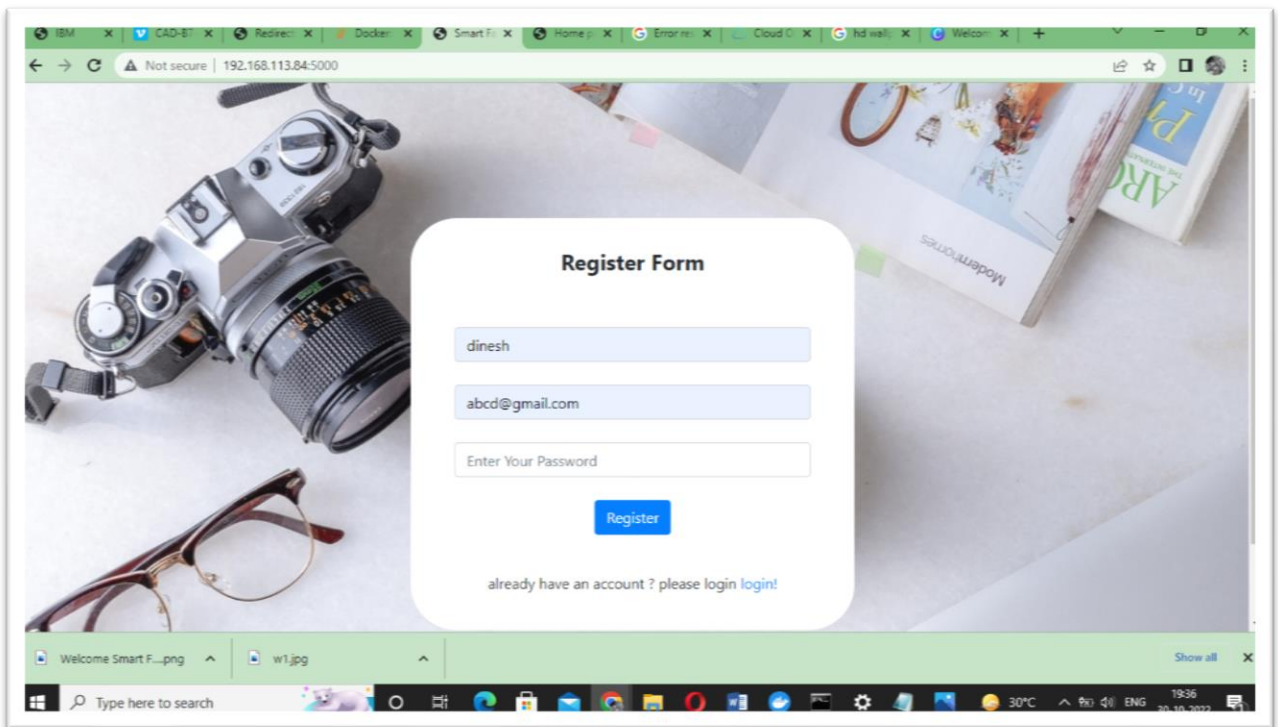
```
.form-text-vk {  
    font-size: small;  
    padding-bottom: 10px;  
}
```

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

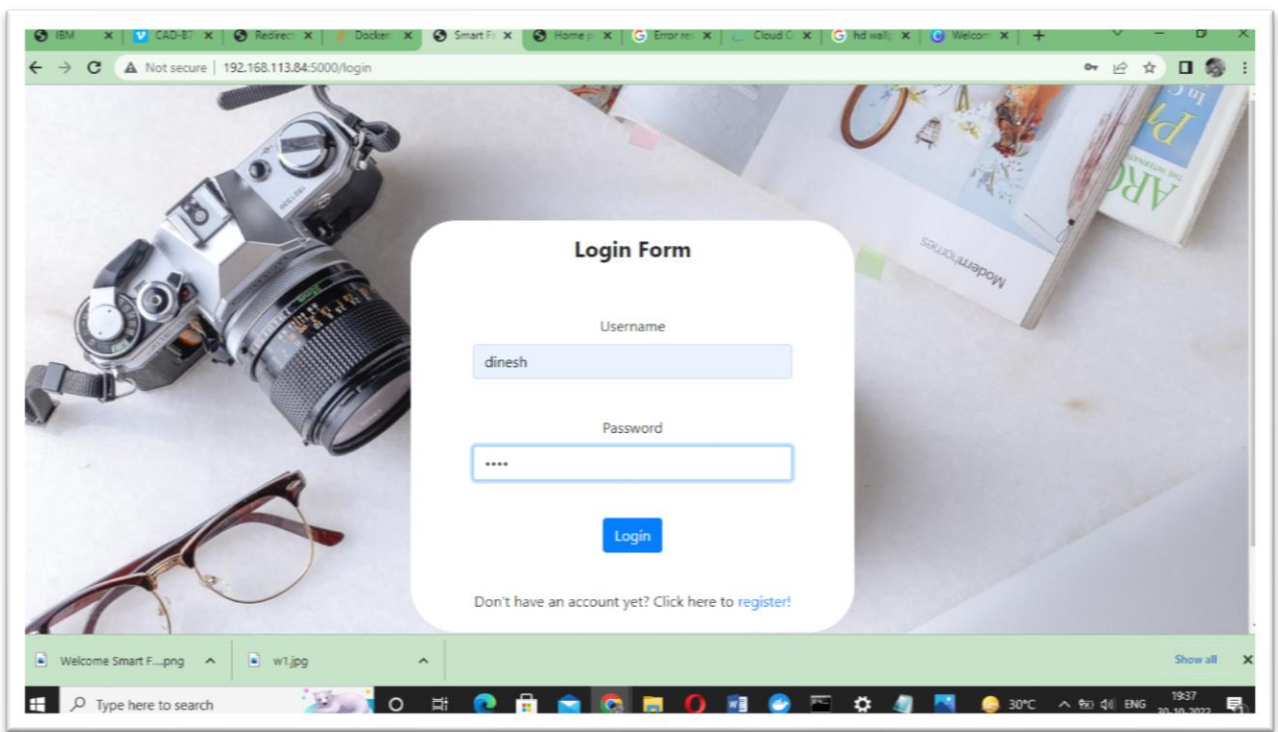
Output:-

Registration page:-

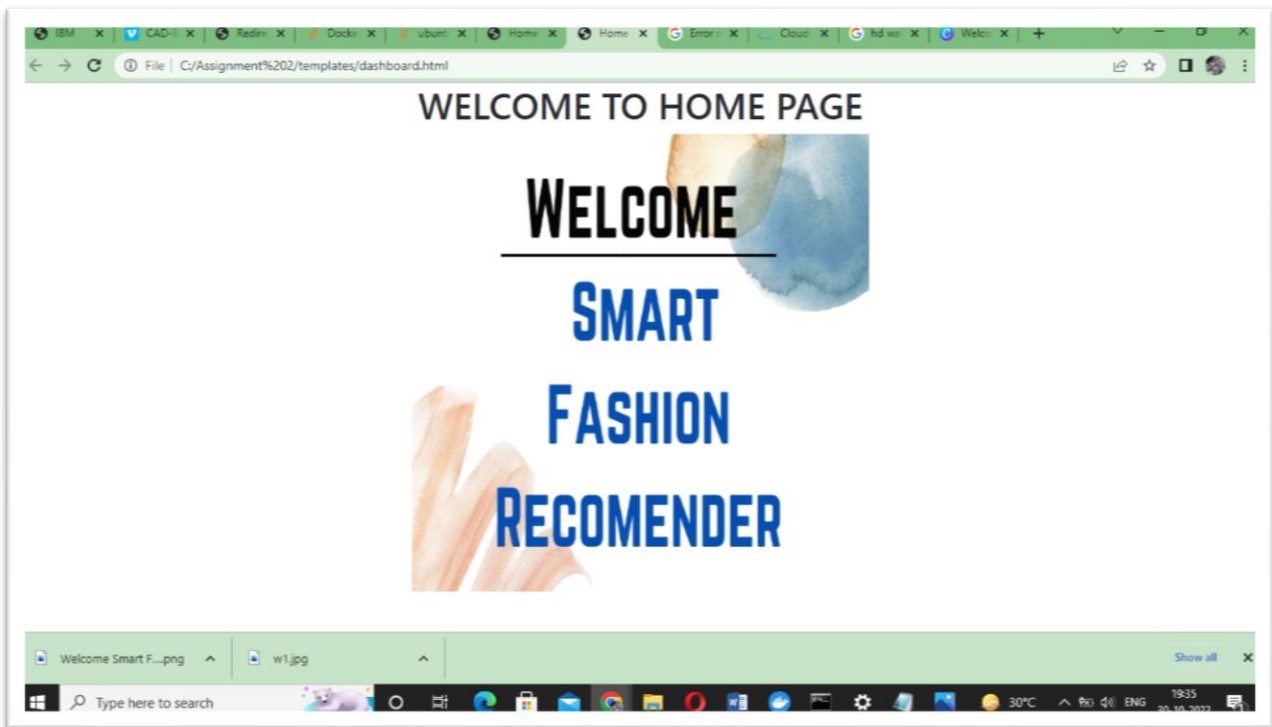




Login Page:



Welcome Page:



Database Table:

