

Assignment -2

IBM CLOUD DB2

Assignment Date	29 SEPTEMBER 2022
Student Name	ASHWIN S
Student Roll Number	1905009
Maximum Marks	2 Marks

Questions:

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

The screenshot shows the IBM Db2 on Cloud console. In the 'Tables' tab, a table named 'USER' is listed under the schema 'DRQ17778'. The 'Table definition' pane on the right displays the table's structure:

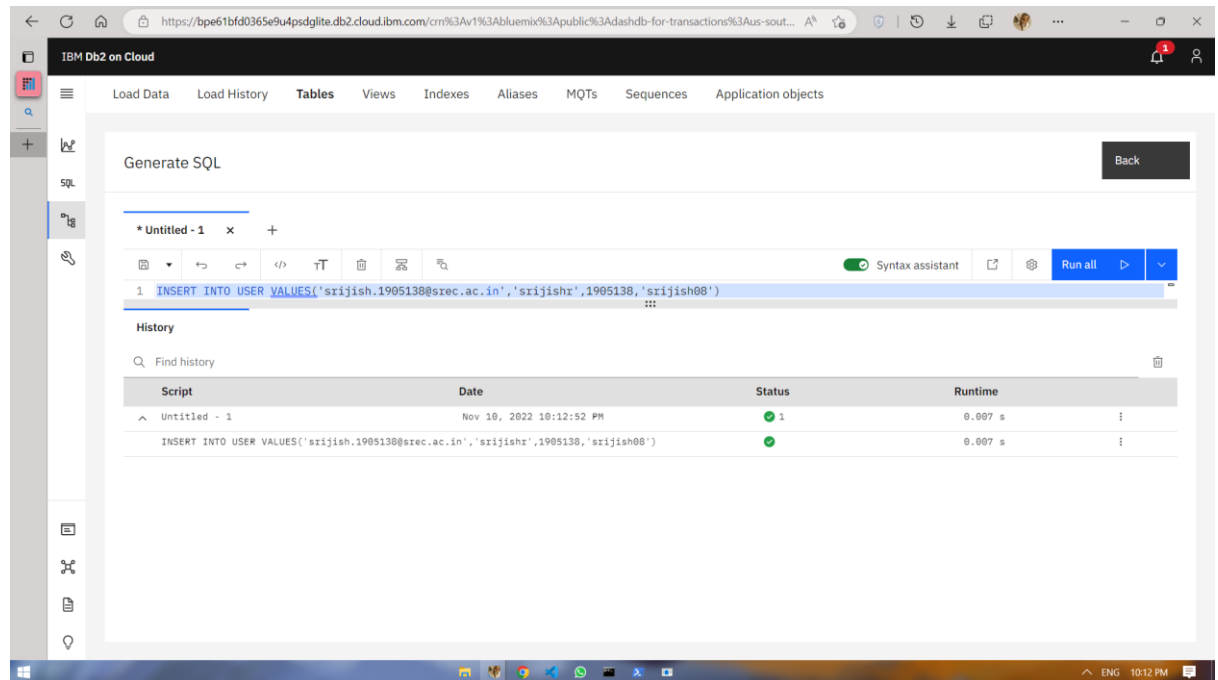
Name	Data type	Nullable	Length	Scale
EMAIL	CHAR	Y	100	0
USERNAME	CHAR	Y	100	0
ROLLNUMBER	INTEGER	Y		0
PASSWORD	VARCHAR	Y	32	0

The screenshot shows the IBM Db2 on Cloud console with the 'DRQ17778.USER' table selected. The table is empty, and a message 'There is no data here yet' is displayed. The table structure is visible at the top:

EMAIL	USERNAME	ROLLNUMBER	PASSWORD
-------	----------	------------	----------

2. Perform UPDATE, DELETE Queries with user table.

UPDATE TABLE:-



Generate SQL

Back

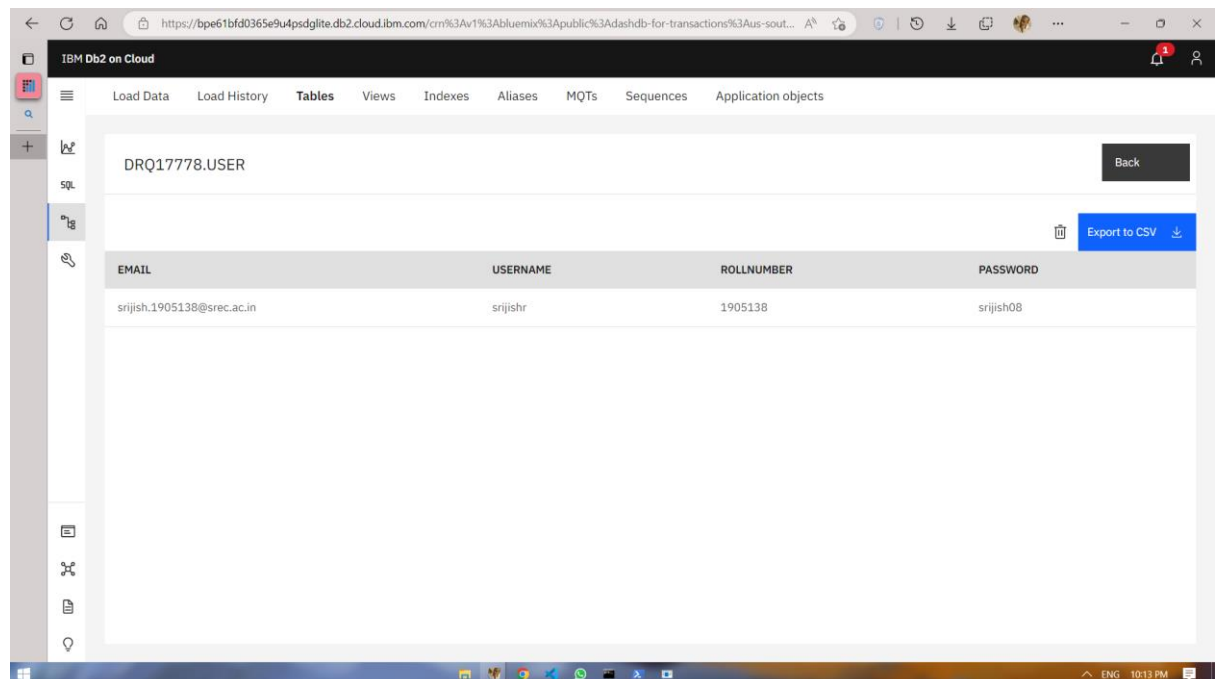
*Untitled - 1 x +

1 INSERT INTO USER VALUES('srijish.1905138@srec.ac.in','srijishr',1905138,'srijish08')

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Nov 10, 2022 10:12:52 PM	1	0.007 s
INSERT INTO USER VALUES('srijish.1905138@srec.ac.in','srijishr',1905138,'srijish08')			0.007 s



DRQ17778.USER

Back

Export to CSV

EMAIL	USERNAME	ROLLNUMBER	PASSWORD
srijish.1905138@srec.ac.in	srijishr	1905138	srijish08

DELETE TABLE:-

The screenshot shows the IBM Db2 on Cloud interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, and the table 'DRQ17778.USER' is displayed. A 'Back' button is in the top right. Below the table name, there is an 'Export to CSV' button. The table structure is as follows:

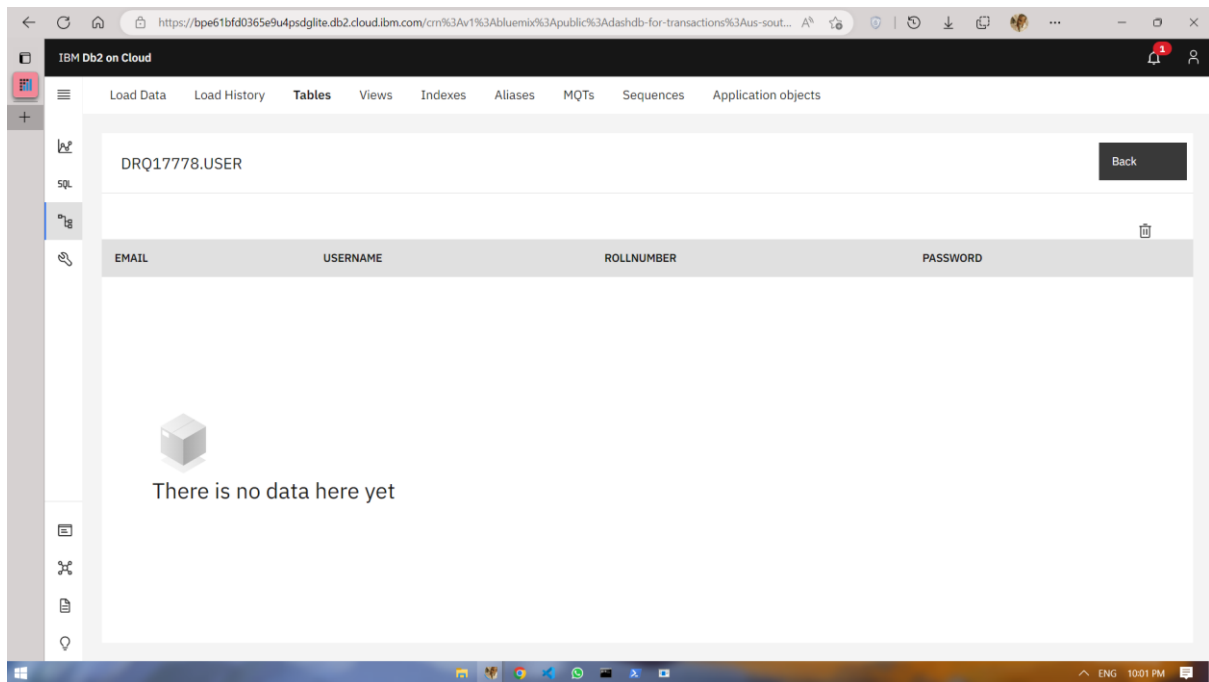
EMAIL	USERNAME	ROLLNUMBER	PASSWORD
srijish.1905138@srec.ac.in	srijishr	1905138	srijish08

The screenshot shows the 'Generate SQL' screen in the IBM Db2 on Cloud interface. The top navigation bar is the same as the previous screenshot. The 'Generate SQL' screen has a 'Back' button in the top right. Below the title, there is a tab labeled '*Untitled - 1'. The SQL editor contains the following code:

```
1 DELETE FROM USER WHERE ROLLNUMBER = 1905138;
```

Below the editor, there is a 'History' section with a search bar and a table showing the execution history:

Script	Date	Status	Runtime
Untitled - 1	Nov 10, 2022 10:14:35 PM	✓ 1	0.006 s
DELETE FROM USER WHERE ROLLNUMBER = 1905138		✓	0.006 s



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

```

File Edit Selection View Go Run Terminal Help
app.py - SRC2 - Visual Studio Code (Administrator)

1 from flask import Flask, render_template, request, redirect, url_for, session
2 import ibm_db
3 import re
4
5 app = Flask(__name__)
6
7 app.secret_key = 'a'
8
9 conn = ibm_db.connect("DATABASE=#;HOSTNAME=#;PORT=#;USERNAME=#;PASSWORD=#;SECURITY=SSL;SSLSERVERCERTIFICATE=DiglCertGlobalRootCA.crt", "", "")
10
11 @app.route('/', methods=['GET', 'POST'])
12 def register():
13     msg = ''
14     if request.method == 'POST':
15         username = request.form['username']
16         email = request.form['email']
17         password = request.form['password']
18         sql = "SELECT * FROM users WHERE username =?"
19         stmt = ibm_db.prepare(conn, sql)
20         ibm_db.bind_param(stmt, 1, username)
21         ibm_db.execute(stmt)
22         account = ibm_db.fetch_assoc(stmt)
23         print(account)
24         if account:
25             msg = 'Account already exists !'
26         elif not re.match(r'([a-z0-9]+@[a-z0-9]+\.[a-z]+)', email):
27             msg = 'Invalid email address !'
28         elif not re.match(r'[A-Za-z0-9]+', username):
29             msg = 'name must contain only characters and numbers !'
30         else:
31             insert_sql = "INSERT INTO users VALUES (?, ?, ?)"
32             prep_stmt = ibm_db.prepare(conn, insert_sql)
33             ibm_db.bind_param(prepare_stmt, 1, username)
34             ibm_db.bind_param(prepare_stmt, 2, email)
35             ibm_db.bind_param(prepare_stmt, 3, password)
36             ibm_db.execute(prepare_stmt)
37             msg = 'You have successfully registered !'
38         elif request.method == 'POST':
39             msg = 'Please fill out the form !'
40         return render_template('register.html', msg=msg)
41
42
43 @app.route('/login', methods=['GET', 'POST'])
44 def login():
45     global userid
46     msg = ''
47

```


Login.html

```
login.html - SRC - Visual Studio Code [Administrator]
File Edit Selection View Go Run Terminal Help
login.html X register.html homepage.html app.py style.css style2.css style3.css
templates > login.html
1 <!DOCTYPE html>
2 <html lang="en">
3
4 <head>
5   <meta charset="UTF-8">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Smart Fashion Recommender</title>
8   <!-- favicon -->
9   <!-- <link rel="shortcut icon" href="/assets/img/favicon.ico" type="image/x-icon" -->
10  <!-- <link rel="icon" href="/assets/img/favicon.ico" type="image/x-icon" -->
11  <link rel="icon" type="image/png" sizes="16x16" href="/assets/img/favicon-32x32.png">
12  <!-- bootstrap css cdn -->
13  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
14    integrity="sha384-JcKb8q3wJk8QJ6pdeGvm9Kt8nDwZJJhVlUayNDe78f3IqM72Q5f8TlWJp7h80" crossorigin="anonymous">
15  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.css">
16  <!-- css stylesheet -->
17  <link rel="stylesheet" href="/static/css/style2.css">
18  <!-- font styles cdn -->
19  <link rel="preconnect" href="https://fonts.gstatic.com">
20  <link href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap" rel="stylesheet">
21  <link href="https://fonts.googleapis.com/css2?family=Alegreya:wght@600&display=swap" rel="stylesheet">
22 </head>
23 <body>
24   <div class="login text-center mt-5">
25     <form action="/login" method="post">
26       <h2 class="form-text-h2">Login</h2>
27       <div>
28       </div>
29       <div class="form-group mb-3">
30         <label class="label" for="username">Username</label>
31         <input type="text" class="form-control" placeholder="Username" name="username" required minlength="6">
32       </div>
33       <div class="form-group mb-3">
34         <label class="label" for="password">Password</label>
35         <input type="password" class="form-control" placeholder="Password" name="password" required minlength="6">
36       </div>
37       <div>
38         <button style="background-color: white;color:black;border-color:#dcdddc" type="submit" id="button" class="btn btn-primary"> login </button>
39       </div>
40       <div class="note mt-3 text-center">
41         <br>
42         <p> Don't have an account ? <a href="/"/>Click here to register </a> </p>
43       </div>
44     </form>
45   </div>
46 </body>
47 </html>
```

Style.css

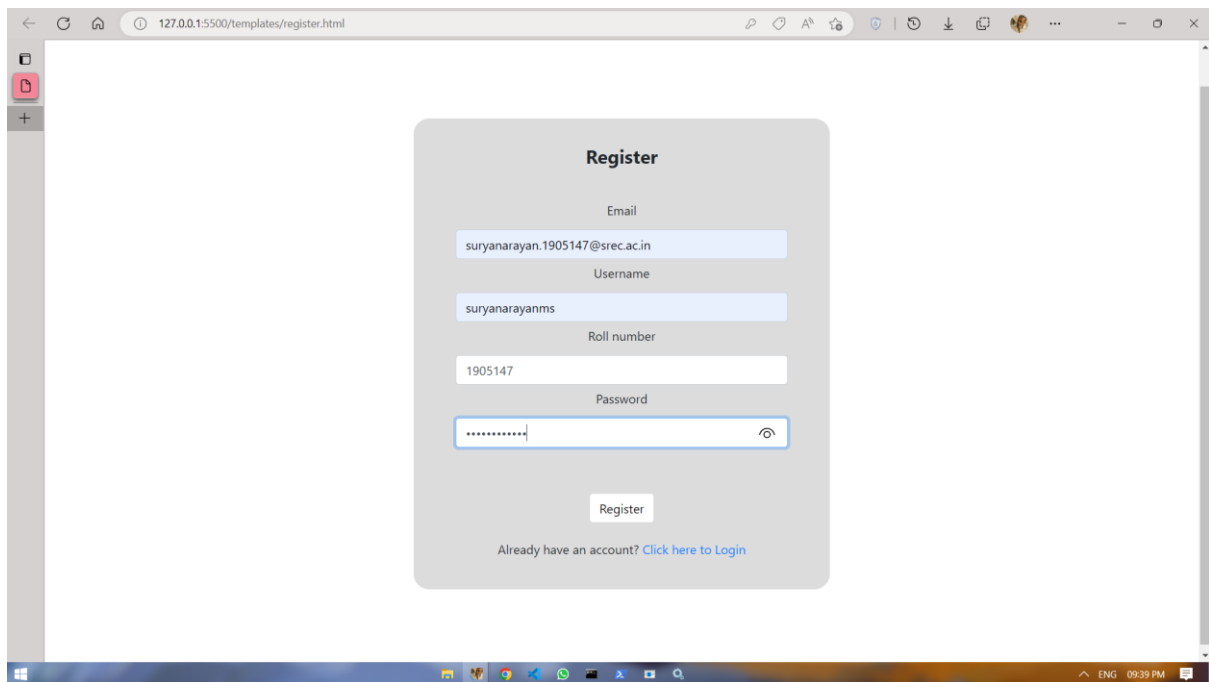
```
style.css - SRC - Visual Studio Code [Administrator]
File Edit Selection View Go Run Terminal Help
login.html X register.html homepage.html app.py style.css X style2.css style3.css
static > css > # style.css > form
1 {
2   margin: 0;
3   padding: 0;
4 }
5
6
7
8 body {
9   background-color: #fff;
10  display: flex;
11  flex-direction: column;
12  align-items: center;
13  justify-content: center;
14 }
15
16 form {
17  display: flex;
18  flex-direction: column;
19  align-items: center;
20  justify-content: center;
21  background-color: #dcdddc;
22  width: 400px;
23  height: 200px;
24  border-radius: 20px;
25  margin: 10px;
26 }
27
28
29 h2 {
30  font-size: large;
31  font-weight: bold;
32 }
33
34 input {
35  width: 80% !important;
36 }
37
38 div {
39  display: flex;
40  align-items: center;
41  justify-content: center;
42  flex-direction: column;
43  width: 80%;
44 }
45
46 .form-text-h2 {
47  font-size: small;
48  padding-bottom: 10px;
49 }
50
51 .form-text-h2 {
52  font-size: x-large;
53  padding-top: 10px;
54 }
```

```
File Edit Selection View Go Run Terminal Help style2.css - SRC - Visual Studio Code [Administrator]
style2.css
1 {
2   margin: 0;
3   padding: 0;
4 }
5
6
7 body {
8   background-color: #white;
9   display: flex;
10  flex-direction: column;
11  align-items: center;
12  justify-content: center;
13 }
14
15 form {
16   display: flex;
17   flex-direction: column;
18   align-items: center;
19   justify-content: center;
20   background-color: #f0f0f0;
21   width: 400px;
22   height: 500px;
23   border-radius: 20px;
24   margin: 100px;
25   gap: 10px;
26 }
27
28
29 h2 {
30   font-size: larger;
31   font-weight: bolder;
32 }
33
34 input {
35   width: 80% !important;
36 }
37
38 div {
39   display: flex;
40
41   align-items: center;
42   justify-content: center;
43   flex-direction: column;
44   width: 80%;
45 }
46
47 .form-text-vk {
48   font-size: small;
49   padding-bottom: 10px;
50 }
51
52 .form-text-h2 {
53   font-size: x-large;
54   padding-top: 10px;
55 }
```

```
File Edit Selection View Go Run Terminal Help style3.css - SRC - Visual Studio Code [Administrator]
style3.css
1 {
2   margin: 0;
3   padding: 0;
4 }
5
6
7 body {
8   background-color: #white;
9   display: flex;
10  flex-direction: column;
11  align-items: center;
12  justify-content: center;
13 }
14
15 form {
16   display: flex;
17   flex-direction: column;
18   align-items: center;
19   justify-content: center;
20   background-color: #f0f0f0; /*
21   width: 400px;
22   height: 500px;
23   border-radius: 20px;
24   margin: 100px;
25   gap: 10px;
26 }
27
28
29 h2 {
30   font-size: larger;
31   font-weight: bolder;
32 }
33
34 input {
35   width: 80% !important;
36 }
37
38 div {
39   display: flex;
40
41   align-items: center;
42   justify-content: center;
43   flex-direction: column;
44   width: 80%;
45 }
46
47 .form-text-vk {
48   font-size: small;
49   padding-bottom: 10px;
50 }
51
52 .form-text-h2 {
53   font-size: x-large;
54   padding-top: 10px;
55 }
```

Output:-

Registration page:-

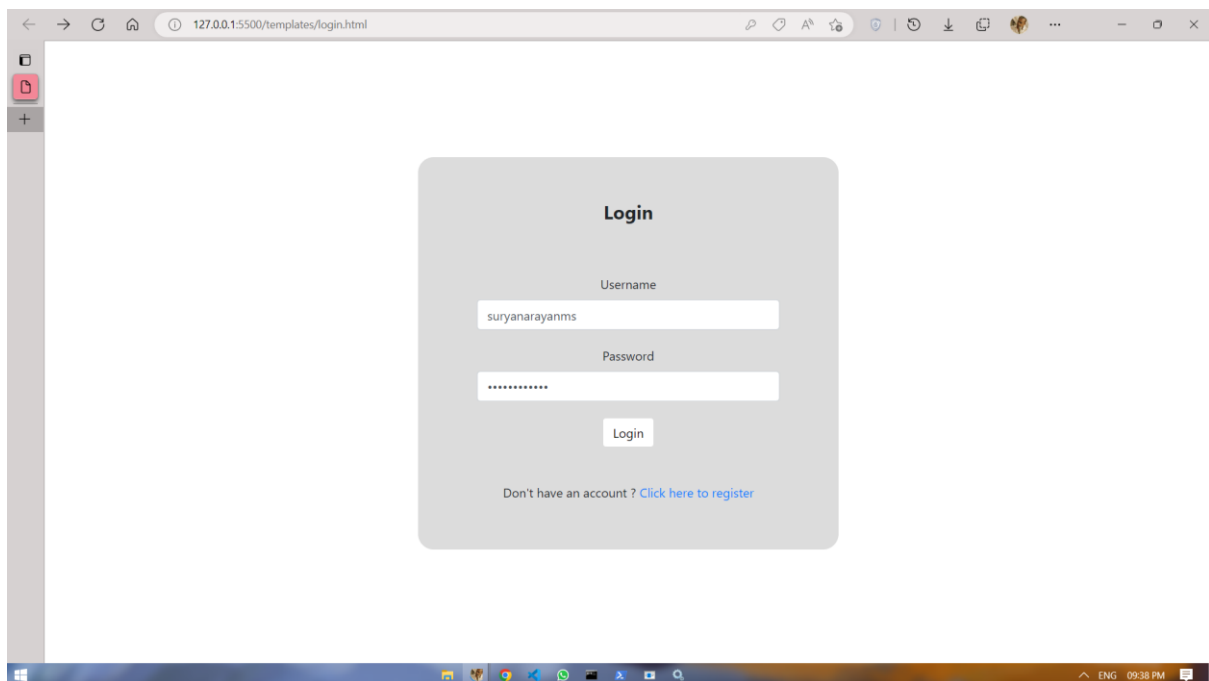


The screenshot shows a web browser window with the address bar displaying "127.0.0.1:5500/templates/register.html". The browser interface includes standard navigation buttons (back, forward, refresh, home) and a tab bar with a single tab. The main content area displays a registration form titled "Register" centered on a light gray background. The form contains the following fields and elements:

- Email:** A text input field containing "suryanarayan.1905147@srec.ac.in".
- Username:** A text input field containing "suryanarayanms".
- Roll number:** A text input field containing "1905147".
- Password:** A password input field with masked characters "*****" and a toggle icon (an eye) on the right.
- Register Button:** A white button with the text "Register".
- Footer:** Below the button, the text "Already have an account? [Click here to Login](#)" is displayed.

The Windows taskbar is visible at the bottom of the screen, showing various application icons and the system clock indicating "ENG 09:39 PM".

Login Page:-

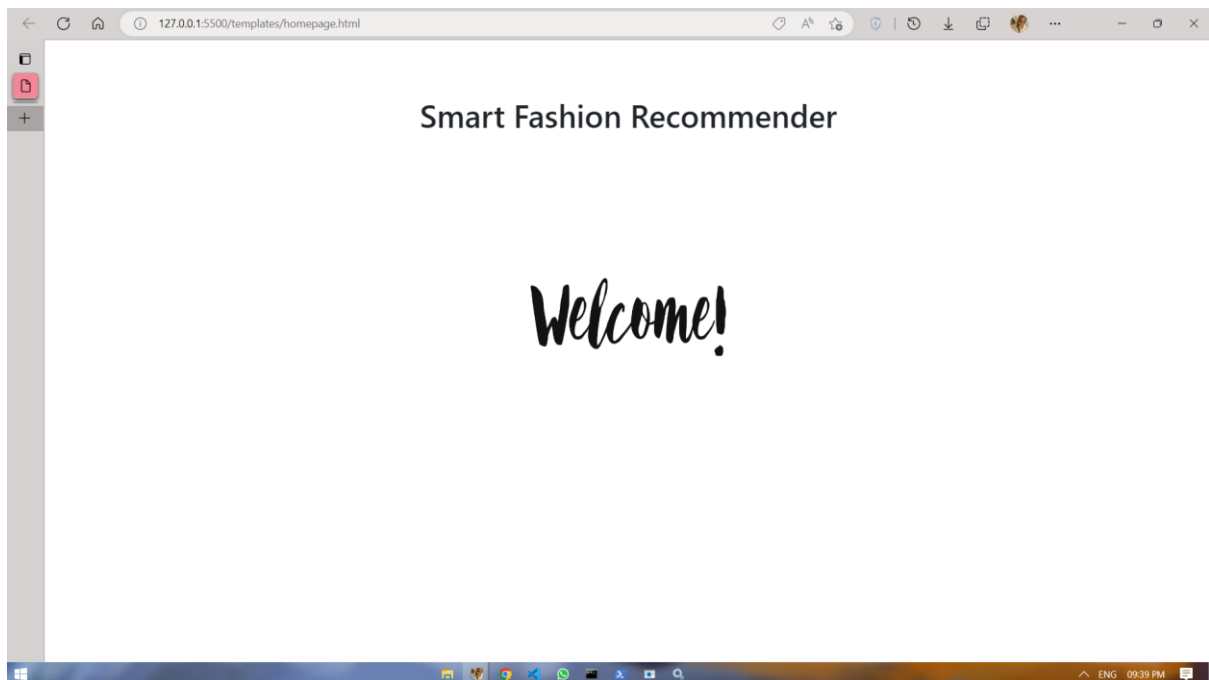


The screenshot shows a web browser window with the address bar displaying "127.0.0.1:5500/templates/login.html". The browser interface is consistent with the previous screenshot, showing navigation buttons and a single tab. The main content area displays a login form titled "Login" centered on a light gray background. The form contains the following fields and elements:

- Username:** A text input field containing "suryanarayanms".
- Password:** A password input field with masked characters "*****".
- Login Button:** A white button with the text "Login".
- Footer:** Below the button, the text "Don't have an account? [Click here to register](#)" is displayed.

The Windows taskbar is visible at the bottom of the screen, showing various application icons and the system clock indicating "ENG 09:38 PM".

Welcome Page:-



Data Base Table:-

