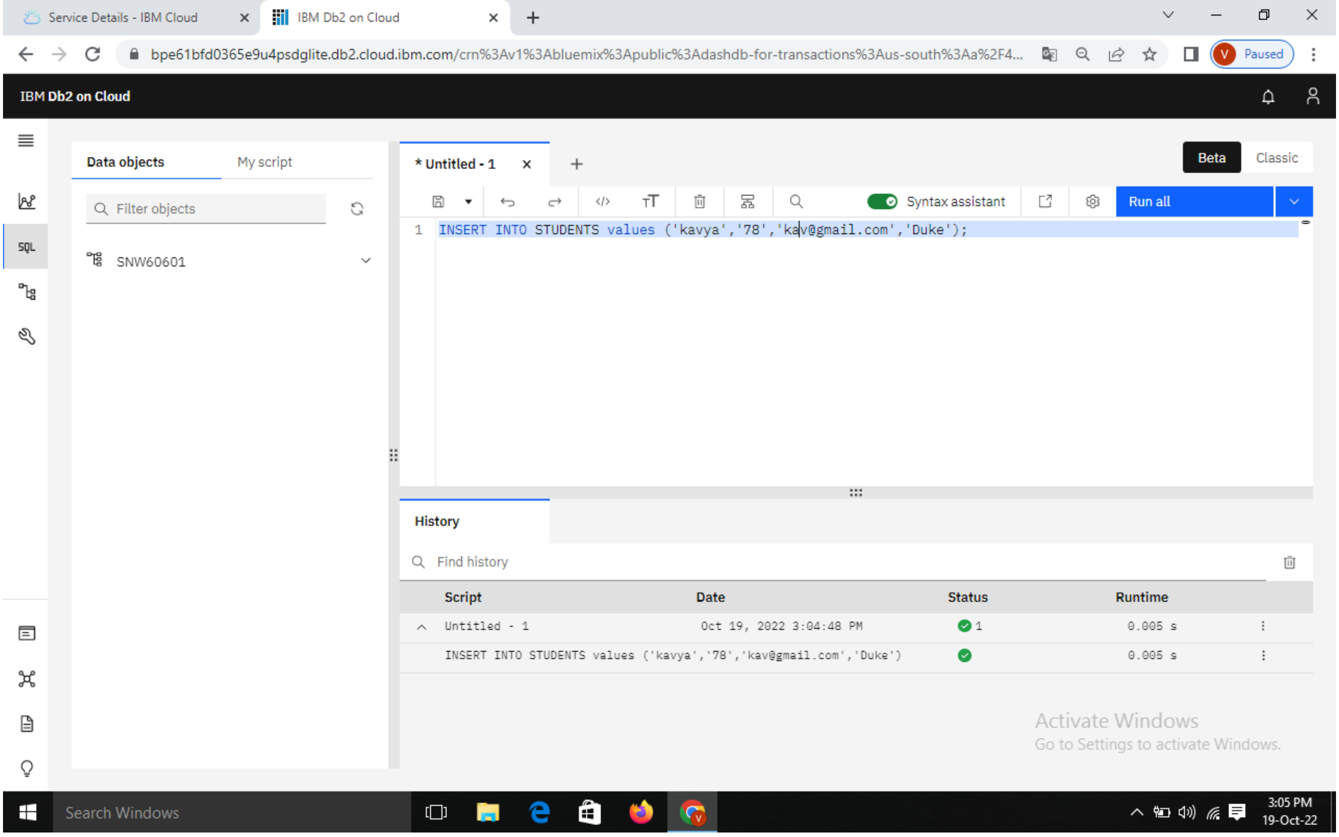
Assignment - 2

IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	KAVYA A
Student Roll Number	613019104036
Maximum Marks	2 Marks

Questions:

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

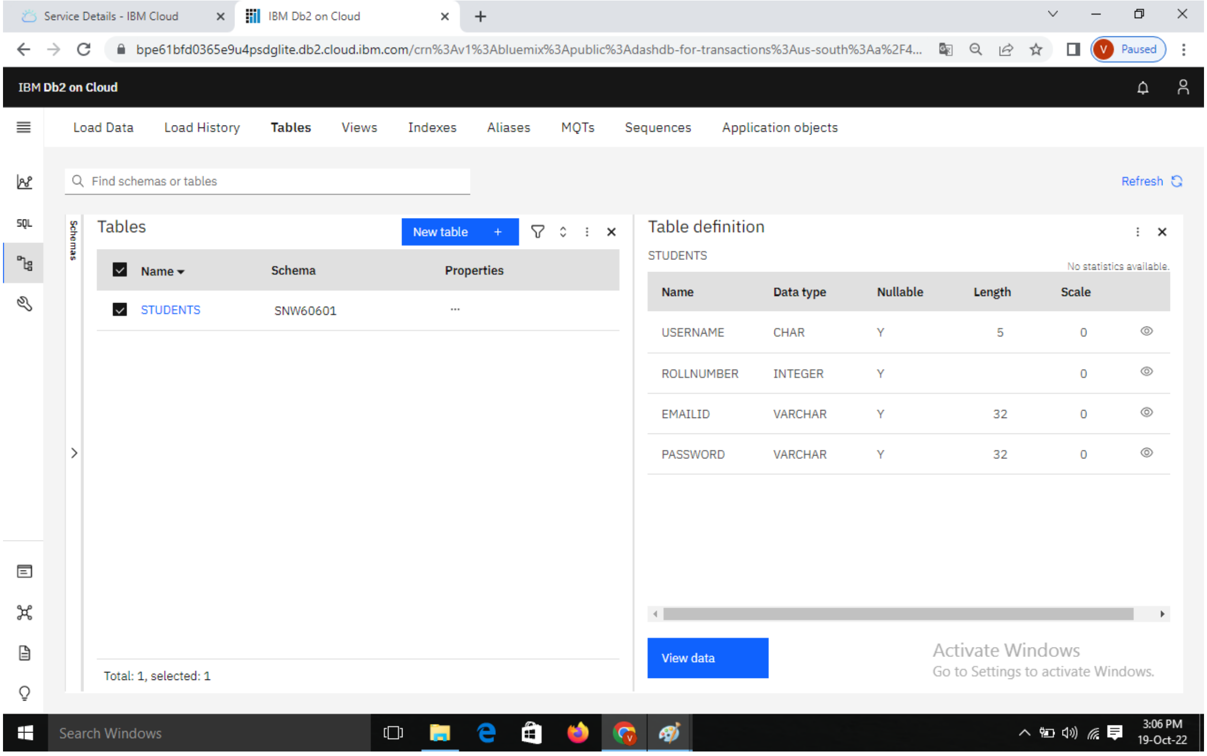


```
INSERT INTO STUDENTS values ('kavya','78','kav@gmail.com','Duke');
```

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 3:04:48 PM	✓ 1	0.005 s
INSERT INTO STUDENTS values ('kavya','78','kav@gmail.com','Duke')		✓	0.005 s

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-



Tables

☑	Name	Schema	Properties
☑	STUDENTS	SNW60601	···

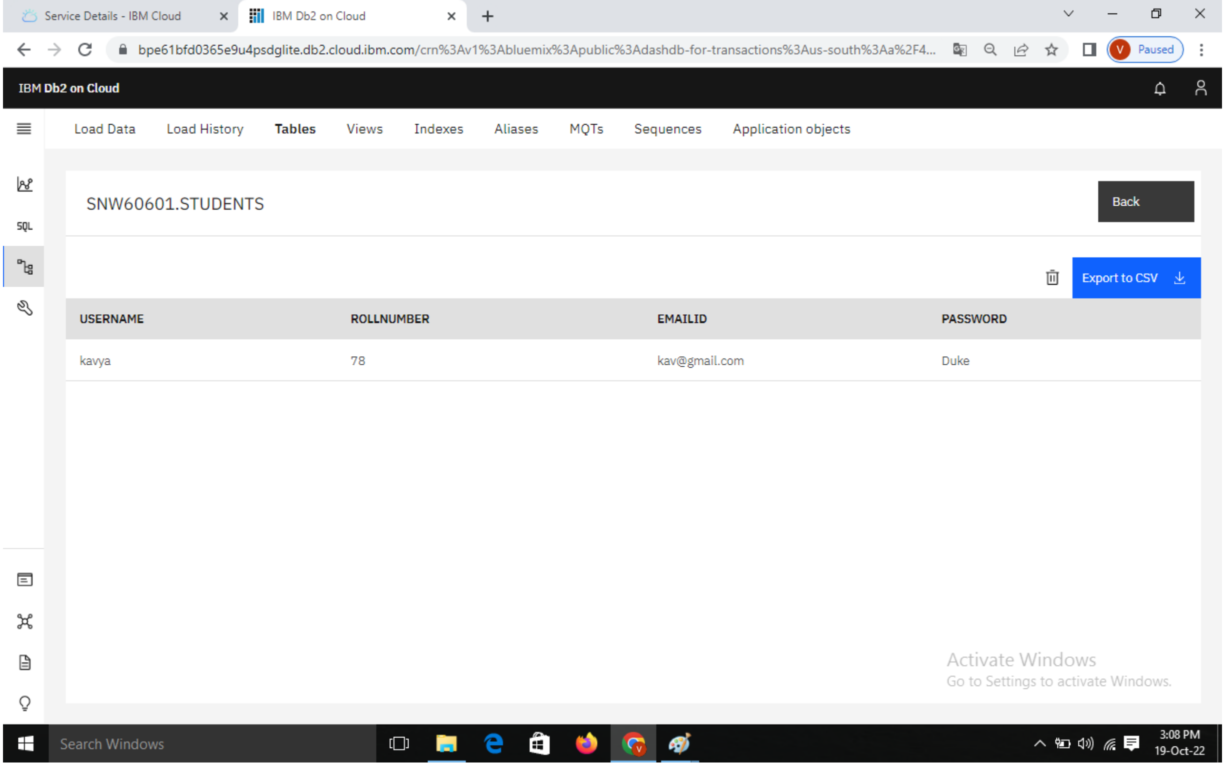
Total: 1, selected: 1

Table definition

STUDENTS

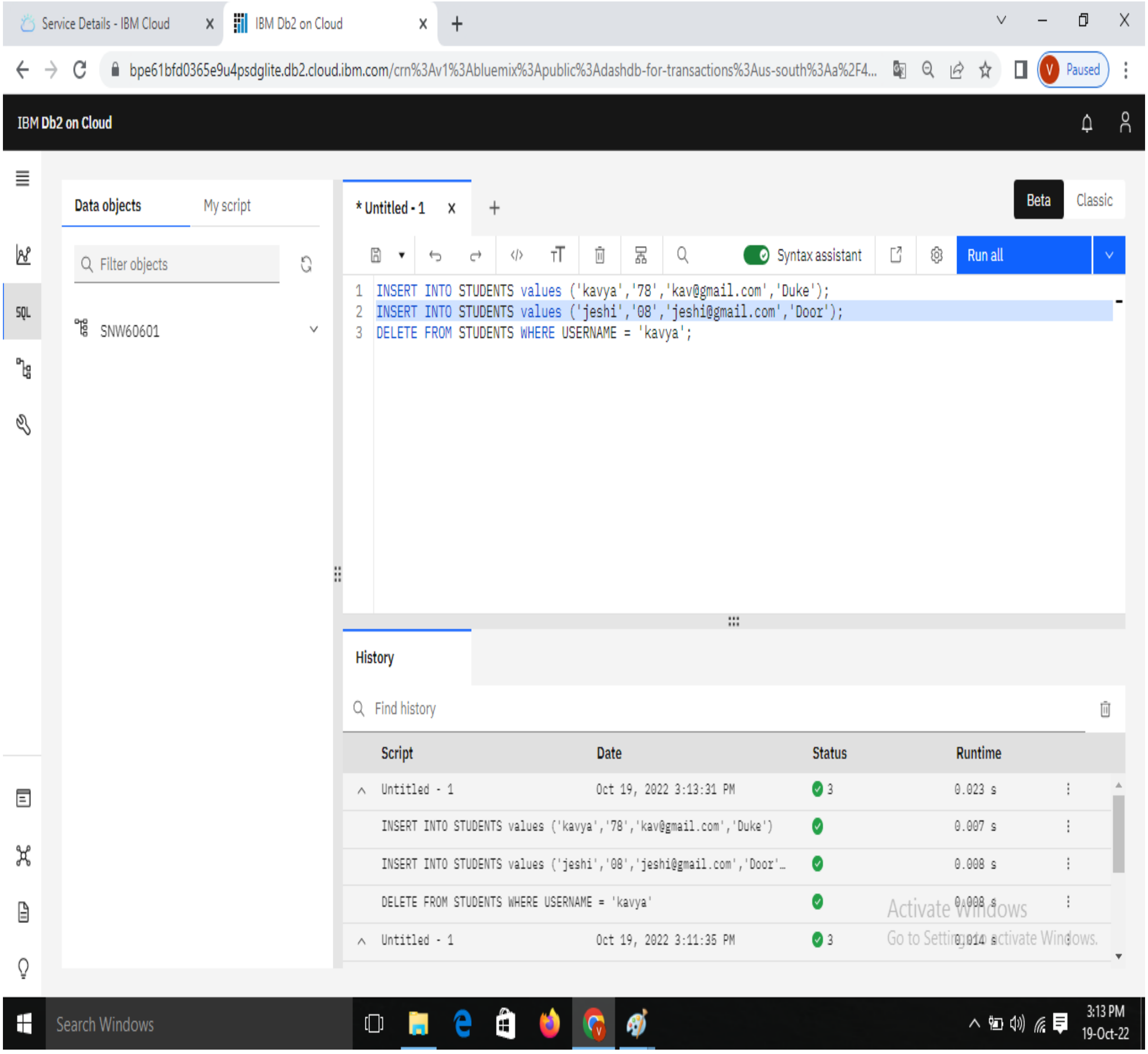
No statistics available.

Name	Data type	Nullable	Length	Scale
USERNAME	CHAR	Y	5	0
ROLLNUMBER	INTEGER	Y		0
EMAILID	VARCHAR	Y	32	0
PASSWORD	VARCHAR	Y	32	0


Service Details - IBM Cloud
IBM Db2 on Cloud
bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F4...
Paused
IBM Db2 on Cloud
Load Data
Load History
Tables
Views
Indexes
Aliases
MQTs
Sequences
Application objects
Back
Export to CSV
Activate Windows
Go to Settings to activate Windows.
Search Windows
3:08 PM
19-Oct-22

SNW60601.STUDENTS

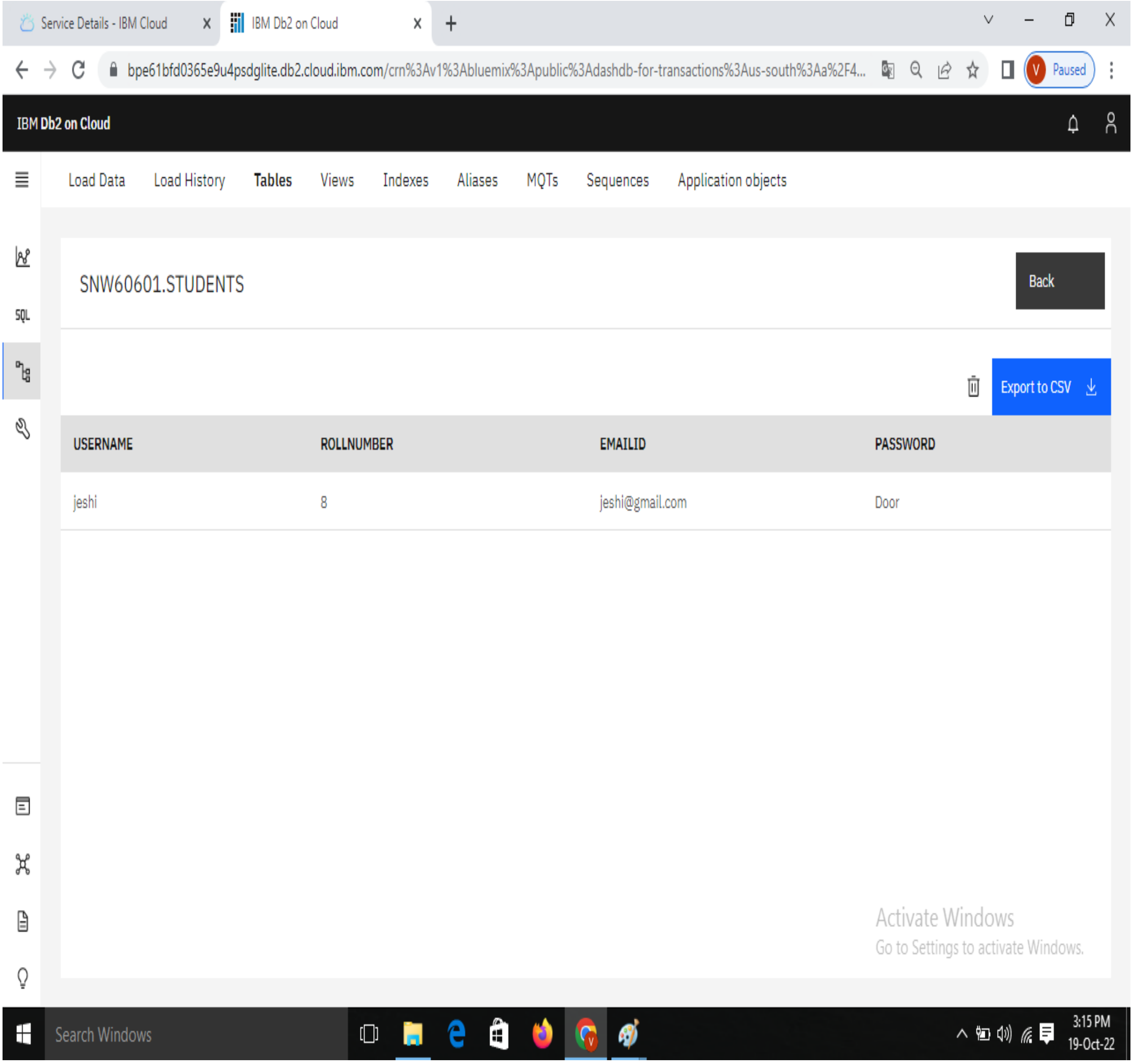
USERNAME	ROLLNUMBER	EMAILID	PASSWORD
kavya	78	kav@gmail.com	Duke



```sql
INSERT INTO STUDENTS values ('kavya','78','kav@gmail.com','Duke');
INSERT INTO STUDENTS values ('jeshi','08','jeshi@gmail.com','Door');
DELETE FROM STUDENTS WHERE USERNAME = 'kavya';
```

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 3:13:31 PM	✓ 3	0.023 s
INSERT INTO STUDENTS values ('kavya','78','kav@gmail.com','Duke')		✓	0.007 s
INSERT INTO STUDENTS values ('jeshi','08','jeshi@gmail.com','Door'…		✓	0.008 s
DELETE FROM STUDENTS WHERE USERNAME = 'kavya'		✓	0.008 s
Untitled - 1	Oct 19, 2022 3:11:35 PM	✓ 3	0.014 s

DELETE TABLE:-



SNW60601.STUDENTS

USERNAME	ROLLNUMBER	EMAILID	PASSWORD
jeshi	8	jeshi@gmail.com	Door

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=Db2New;HOSTNAME=19af6446-6171-4641-8aba-
9dcff8e1b6ff.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=30699;USERNAM
E=kgb92696;PASSWORD=3llWyGYU3bMlvwnX;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(prep_stmt, 1, username)
            ibm_db.bind_param(prep_stmt, 2, email)
            ibm_db.bind_param(prep_stmt, 3, password)
            ibm_db.execute(prep_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>Containment Zone Alerting 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="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

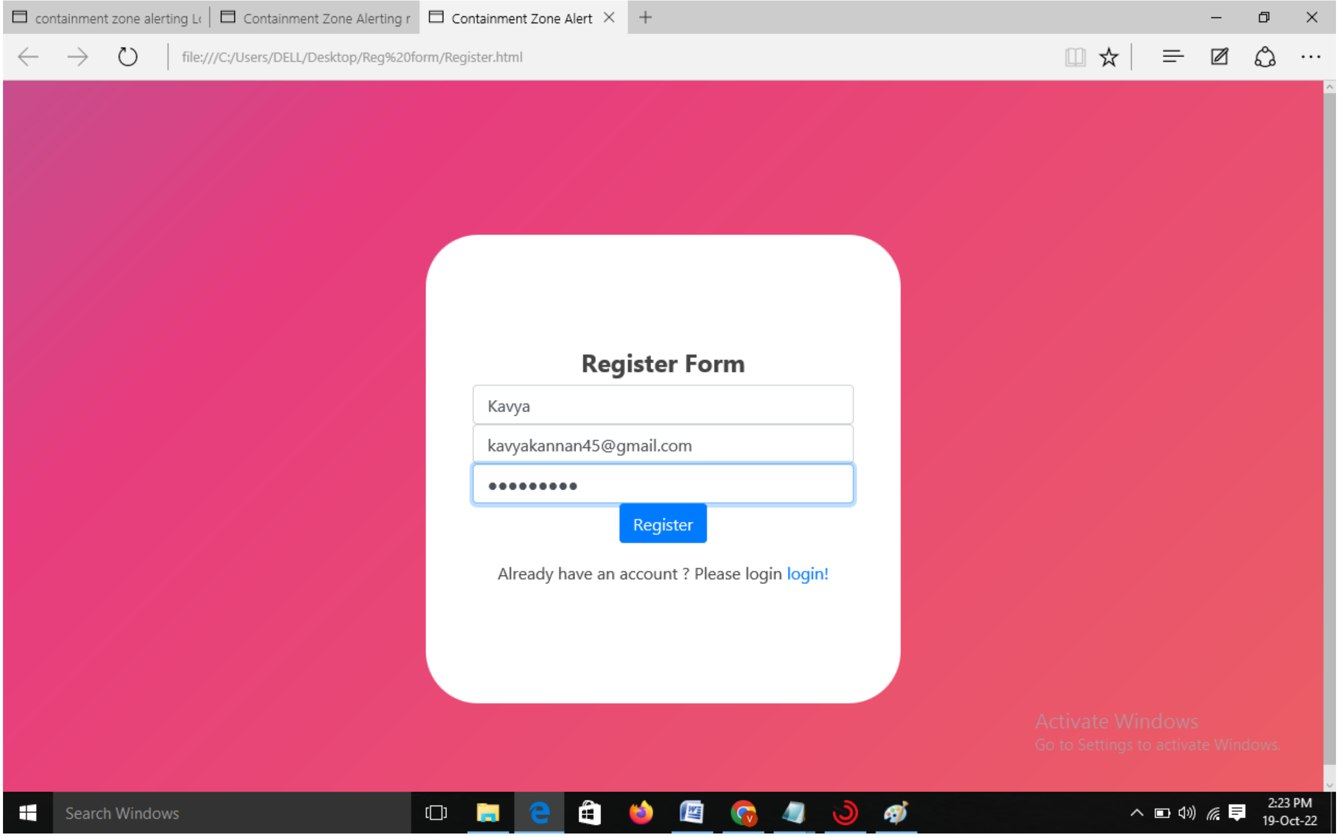
```
<!DOCTYPE html>
<html lang="en">

<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>Containment Zone Alerting 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="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">
```

```html
    <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

```css
* {
    margin: 0;
    padding: 0;
}
body {
    color: #444444;
    background:linear-gradient(-45deg, #EE7752, #E73C7E, #23A6D5, #23D5AB);
    background-size: 400% 400%;
    position: relative;
    display: flex;
    flex-direction: column;
    align-items: center;
    justify-content: center;
    animation: anime 10s ease-in-out infinite;
}
@keyframes anime{
  0%{
        background-position: 0 50%;
  }
  50%{
        background-position: 100% 50%;
  }
  100%{
        background-position: 0 50%;
  }
}
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:-


containment zone alerting Lo
Containment Zone Alerting r
Containment Zone Alert
file:///C:/Users/DELL/Desktop/Reg%20form/Register.html

Register Form

Kavya

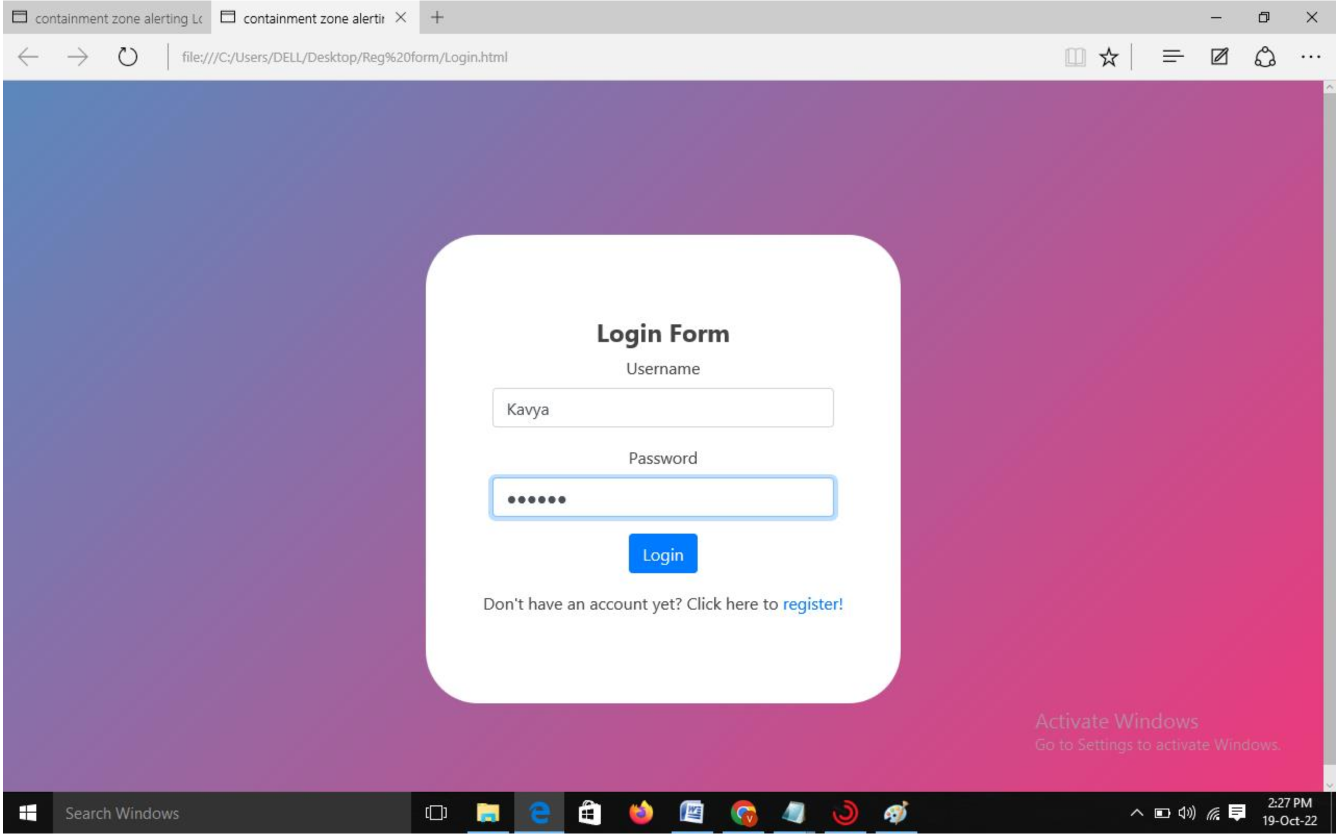
kavyakannan45@gmail.com

●●●●●●●●●

Already have an account ? Please login login!

Activate Windows
Go to Settings to activate Windows.
Search Windows
2:23 PM
19-Oct-22

LOGIN PAGE:-



containment zone alerting Lc
containment zone alertir
file:///C:/Users/DELL/Desktop/Reg%20form/Login.html

Login Form

Username

Kavya

Password

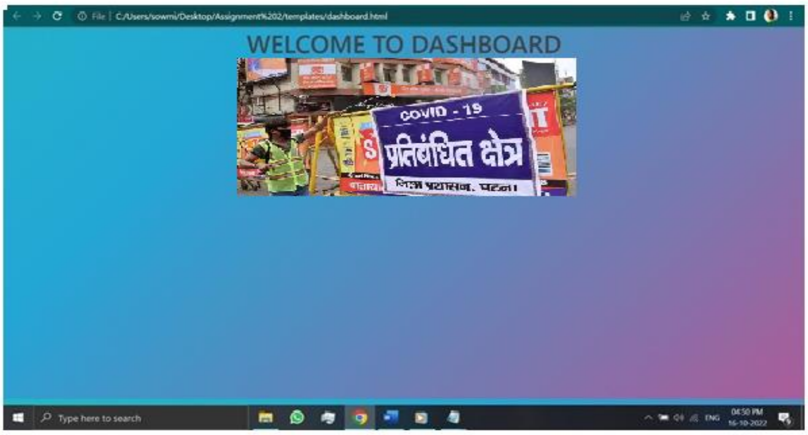
••••••

Login

Don't have an account yet? Click here to register!

Activate Windows
Go to Settings to activate Windows.
Search Windows
2:27 PM
19-Oct-22

WELCOME PAGE:-



File | C:/Users/sowmi/Desktop/Assignment%202/templates/dashboard.html

WELCOME TO DASHBOARD