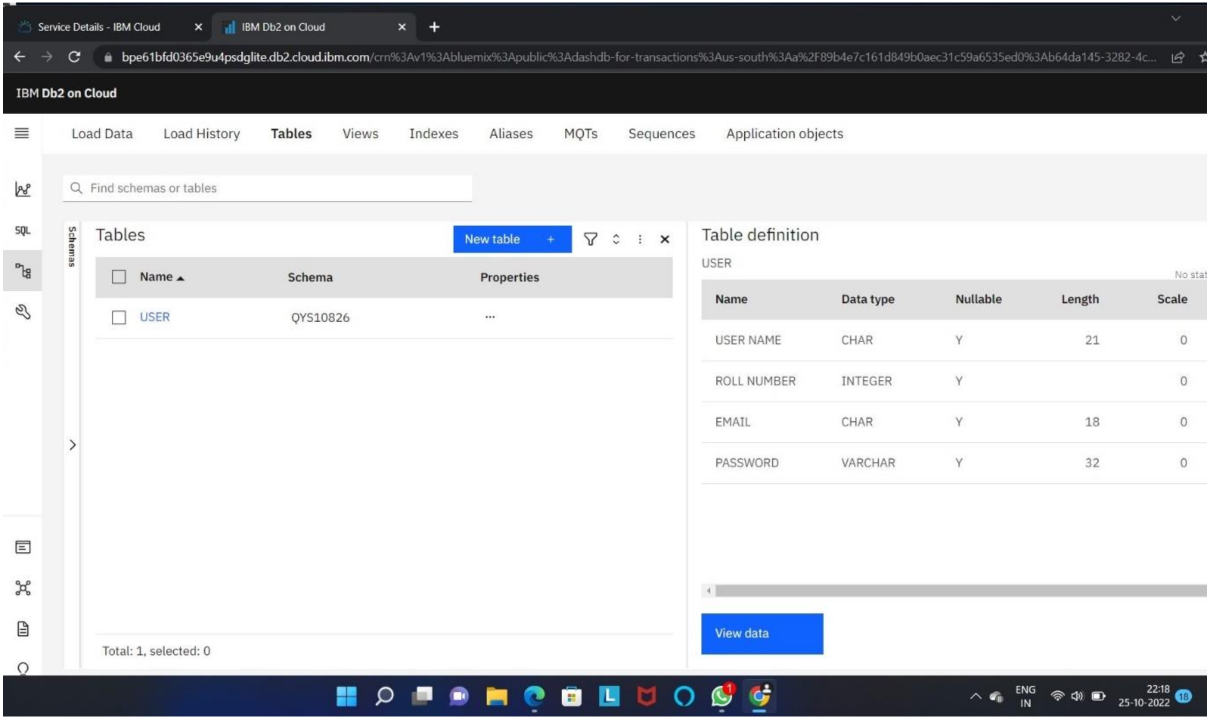
Assignment -2

IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	Saravanan L
Student Roll Number	511319205025
Maximum Marks	2 Marks

Questions:

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



Service Details - IBM Cloud
IBM Db2 on Cloud
bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F89b4e7c161d849b0aec31c59a6535ed0%3Ab64da145-3282-4c...
IBM Db2 on Cloud
Load Data
Load History
Tables
Views
Indexes
Aliases
MQTs
Sequences
Application objects
Find schemas or tables
Schemas
Tables
New table +
View data
No stat
ENG IN
22:18
25-10-2022

Name ▲	Schema	Properties
USER	QYS10826	···

Total: 1, selected: 0

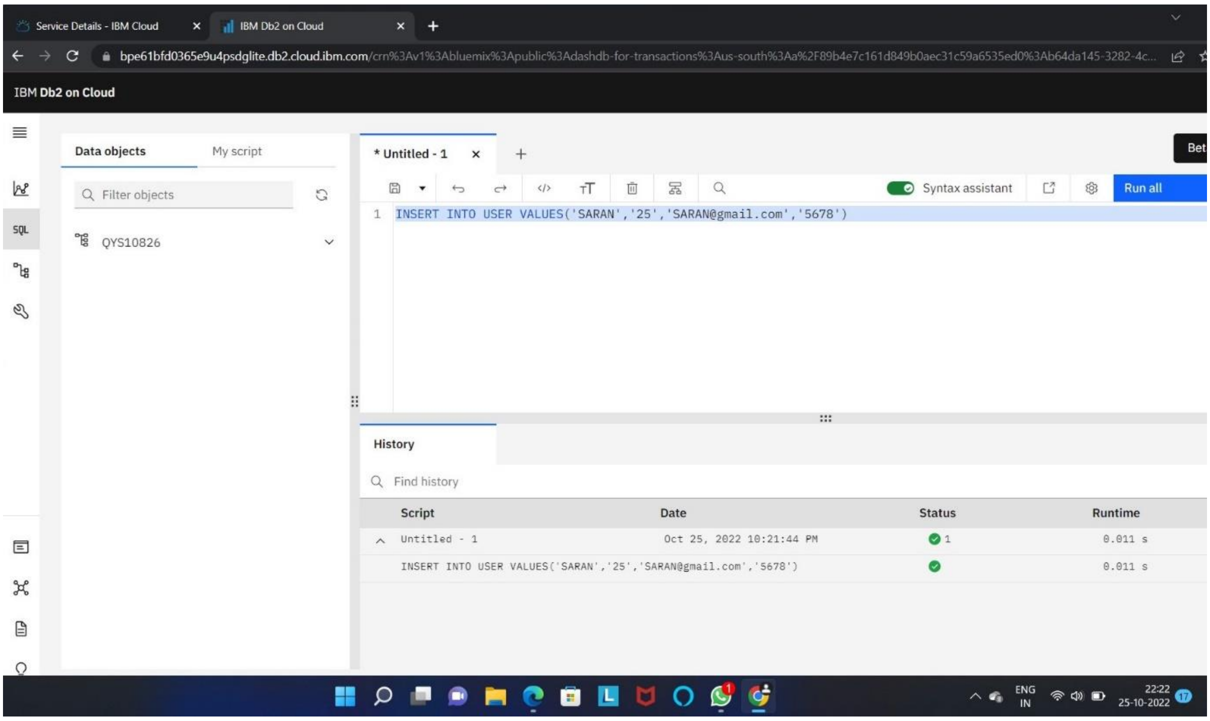
Table definition

USER

Name	Data type	Nullable	Length	Scale
USER NAME	CHAR	Y	21	0
ROLL NUMBER	INTEGER	Y		0
EMAIL	CHAR	Y	18	0
PASSWORD	VARCHAR	Y	32	0

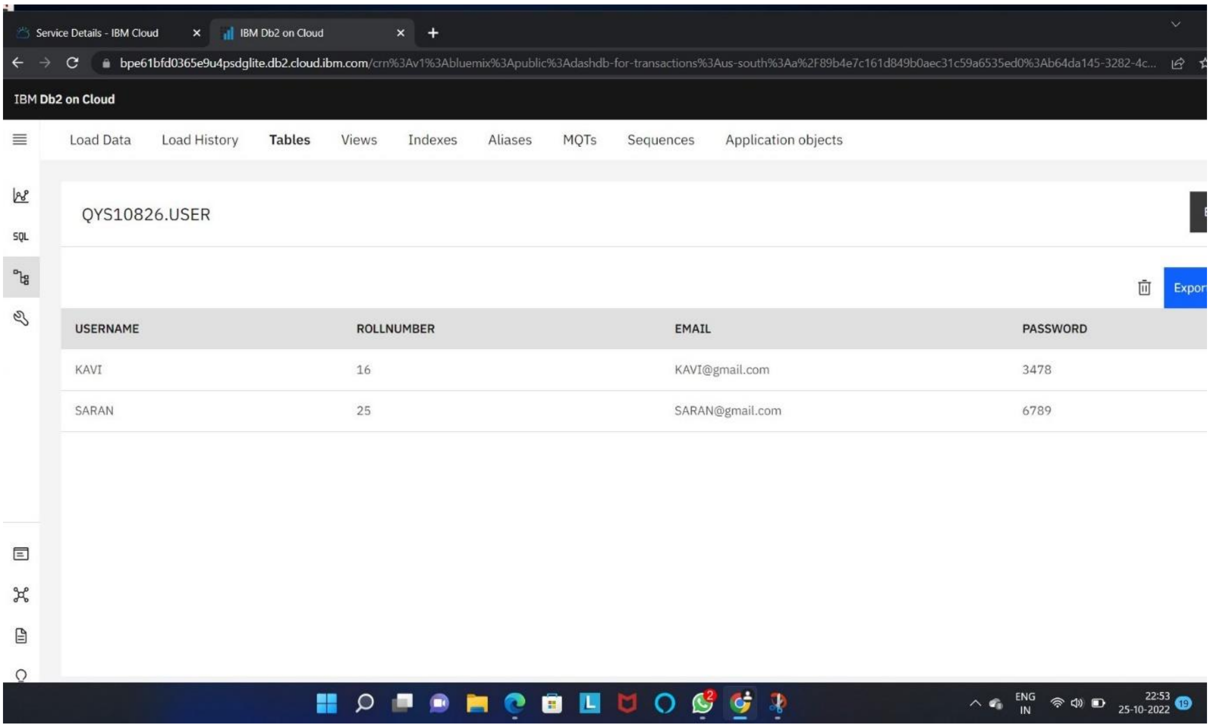
2.Perform UPDATE,DELETE Queries with user table

UPDATETABLE:-


Service Details - IBM Cloud
IBM Db2 on Cloud
bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F89b4e7c161d849b0aec31c59a6535ed0%3Ab64da145-3282-4c...
IBM Db2 on Cloud
Data objects
My script
Filter objects
QYS10826
* Untitled - 1
Syntax assistant
Run all
History
Find history

```
INSERT INTO USER VALUES('SARAN','25','SARAN@gmail.com','5678')
```

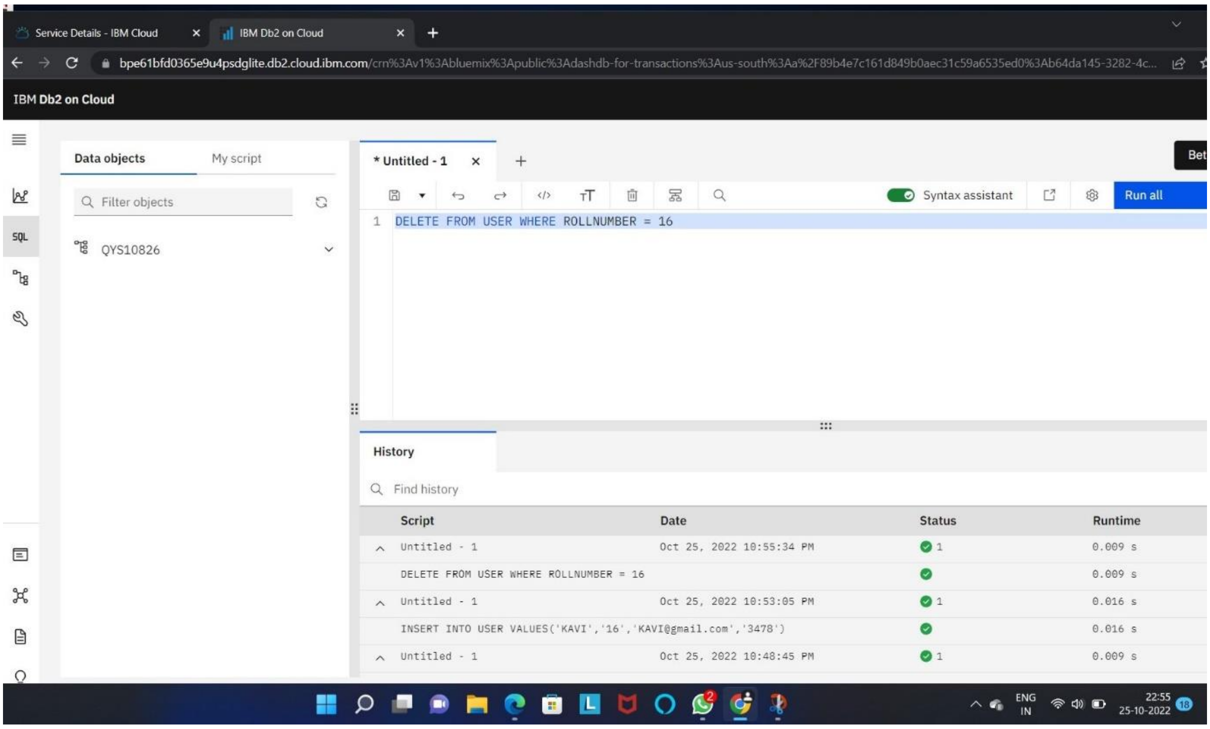
Script	Date	Status	Runtime
Untitled - 1	Oct 25, 2022 10:21:44 PM	✓ 1	0.011 s
INSERT INTO USER VALUES('SARAN','25','SARAN@gmail.com','5678')		✓	0.011 s


Service Details - IBM Cloud
IBM Db2 on Cloud
bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F89b4e7c161d849b0aec31c59a6535ed0%3Ab64da145-3282-4c...
IBM Db2 on Cloud
Load Data
Load History
Tables
Views
Indexes
Aliases
MQTs
Sequences
Application objects
Expor

QYS10826.USER

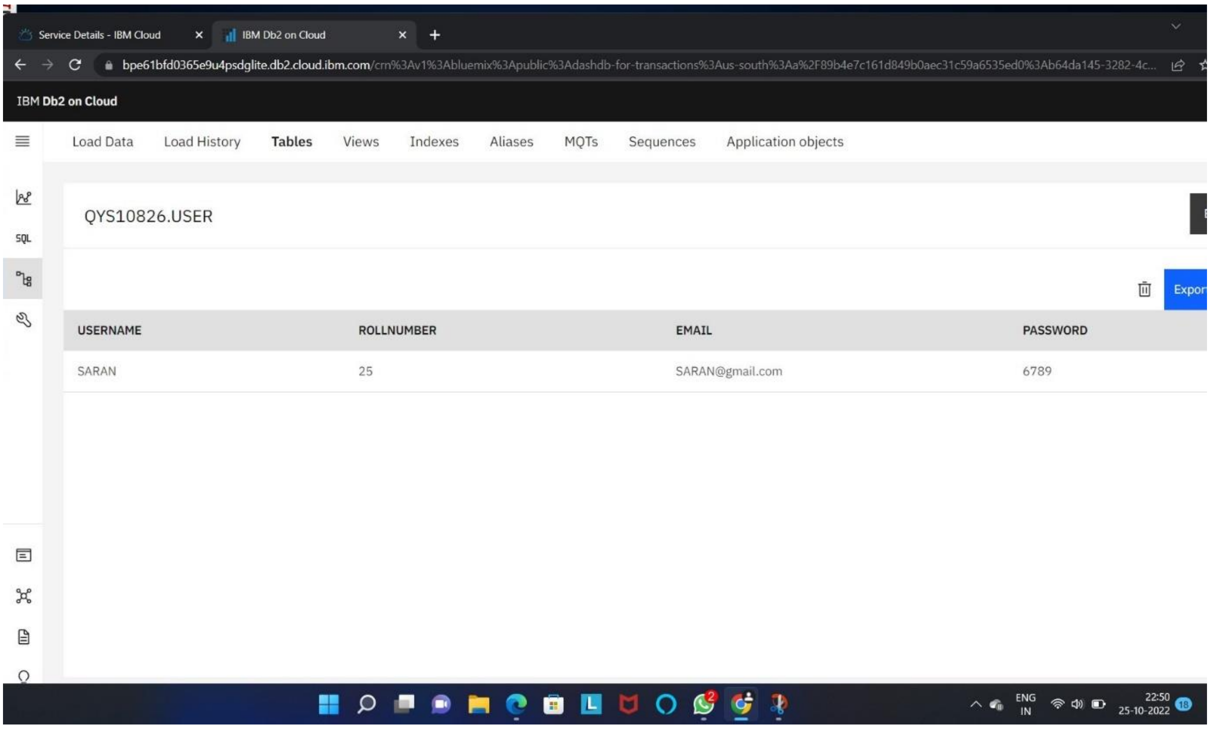
USERNAME	ROLLNUMBER	EMAIL	PASSWORD
KAVI	16	KAVI@gmail.com	3478
SARAN	25	SARAN@gmail.com	6789

DELETETABLE:-


Service Details - IBM Cloud
IBM Db2 on Cloud
bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F89b4e7c161d849b0aec31c59a6535ed0%3Ab64da145-3282-4c...
IBM Db2 on Cloud
Data objects
My script
Filter objects
QYS10826
* Untitled - 1
Syntax assistant
Run all
History
Find history
ENG
IN
22:55
25-10-2022

```
DELETE FROM USER WHERE ROLLNUMBER = 16
```

Script	Date	Status	Runtime
Untitled - 1	Oct 25, 2022 10:55:34 PM	✓ 1	0.009 s
DELETE FROM USER WHERE ROLLNUMBER = 16		✓	0.009 s
Untitled - 1	Oct 25, 2022 10:53:05 PM	✓ 1	0.016 s
INSERT INTO USER VALUES('KAVI','16','KAVI@gmail.com','3478')		✓	0.016 s
Untitled - 1	Oct 25, 2022 10:48:45 PM	✓ 1	0.009 s


Service Details - IBM Cloud
IBM Db2 on Cloud
bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F89b4e7c161d849b0aec31c59a6535ed0%3Ab64da145-3282-4c...
IBM Db2 on Cloud
Load Data
Load History
Tables
Views
Indexes
Aliases
MQTs
Sequences
Application objects
Expor
ENG
IN
22:50
25-10-2022

QYS10826.USER

USERNAME	ROLLNUMBER	EMAIL	PASSWORD
SARAN	25	SARAN@gmail.com	6789

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=1bbf73c5-d84a-4bb0-85b9-
ab1a4348f4a4.c3n41cmd0nqnrk39u98g.databases.appdomain.cloud;PORT=32286;SECURITY=SSL;SSL
ServerCertificate=DigiCertGlobalRootCA.crt;UID=qys10826;PWD=fXqq3tiLqGLZhxn8",'','')
@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(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 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>
```

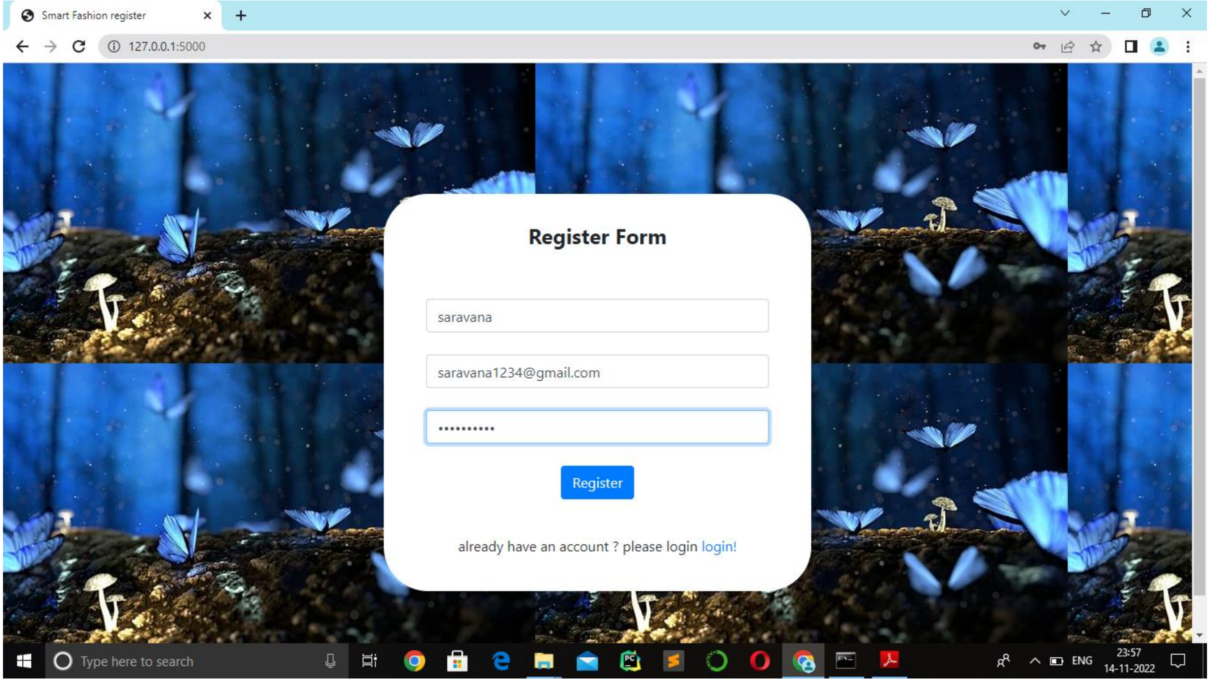
```
      </div>
      <div class="form-group mb-3">
        <label class="label" for="password">Password</label>
        <input type="password" class="form-control" placeholder="Password" name="password" required>
      </div>

      <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://simpleassignment1234.s3.jp-tok.cloud-object-storage.appdomain.cloud/image%20bucket.jpeg);
  background-color: #ccccc;
  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:



Smart Fashion register

127.0.0.1:5000

Register Form

saravana

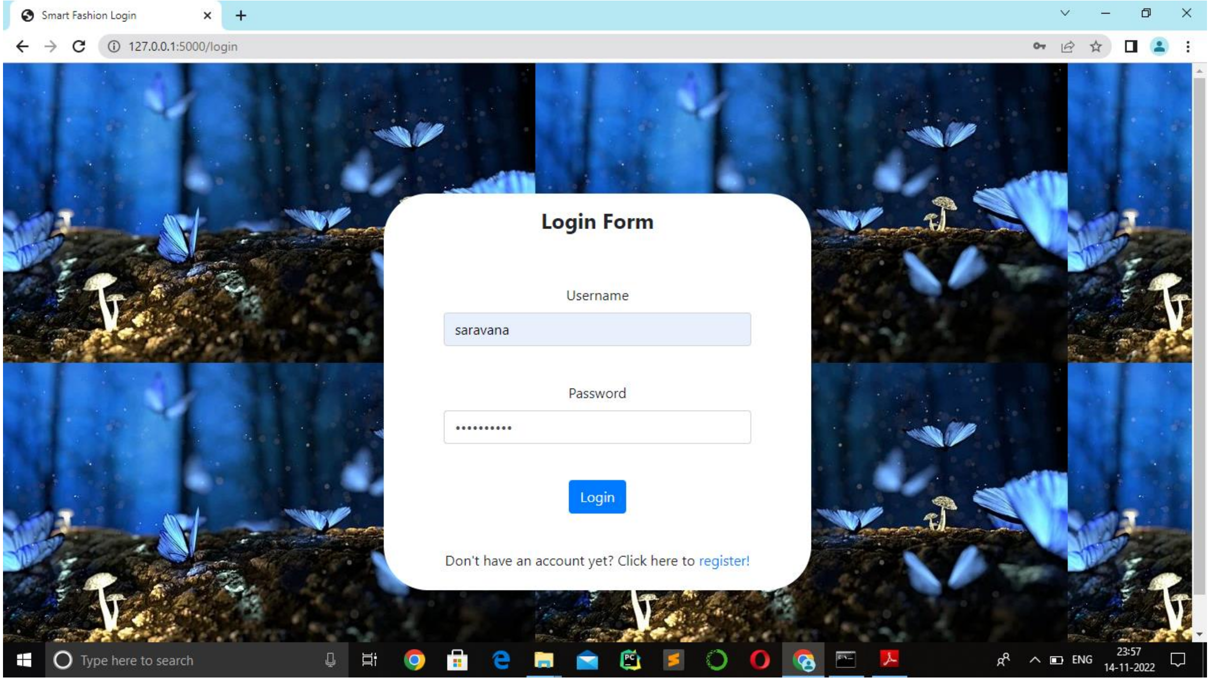
saravana1234@gmail.com

••••••••••

Register

already have an account ? please login login!

Login Page:



Smart Fashion Login

127.0.0.1:5000/login

Login Form

Username

saravana

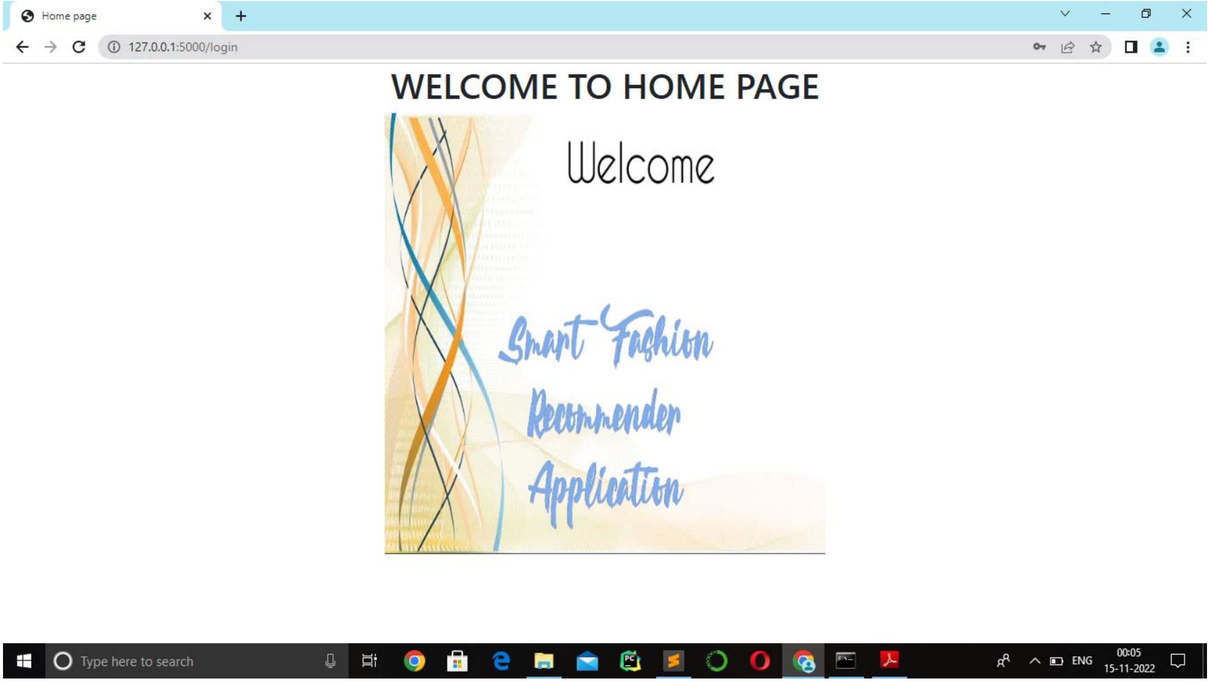
Password

••••••••••

Login

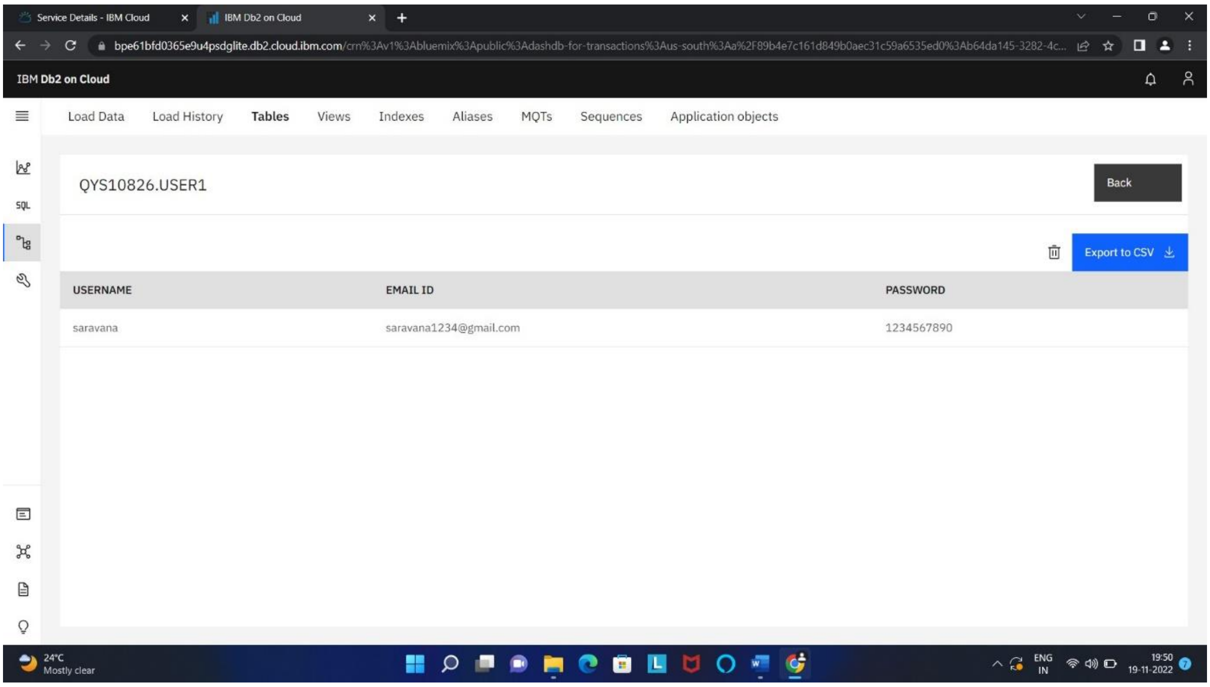
Don't have an account yet? Click here to register!

Welcome Page:



WELCOME TO HOME PAGE

Data Base Table:


Service Details - IBM Cloud
IBM Db2 on Cloud
bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F89b4e7c161d849b0aec31c59a6535ed0%3Ab64da145-3282-4c...
IBM Db2 on Cloud
Load Data
Load History
Tables
Views
Indexes
Aliases
MQTs
Sequences
Application objects
SQL
Back
Export to CSV
24°C
Mostly clear
ENG
IN
19:50
19-11-2022

QYS10826.USER1

USERNAME	EMAIL ID	PASSWORD
saravana	saravana1234@gmail.com	1234567890