

Assignment -2
IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	SALAM LEMBA LUWANG
Student Roll Number	960519104071
Maximum Marks	2 Marks

Questions:

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

IBM Db2 on Cloud

Load DataLoad HistoryTablesViewsIndexesAliasesMQTsSequencesApplication objects

Find schemas or tables

Refresh

Schemas

Tables

New table

Name	Schema	Properties
USERTABLE	DTP46044	...

Total: 1, selected: 1

Table definition

USERTABLE

No statistics available.

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

View data

DTP46044.USERTABLE

Back

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

There is no data here yet

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

IBM Db2 on Cloud

Data objects My script

Filter objects

DTP46044

SQL

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Oct 10, 2022 12:51:13 PM	✓ 1	0.018 s
INSERT INTO USERTABLE VALUES ('VK',21,'VK@gamil.com','1234')		✓	0.018 s

12:51 10-10-2022

IBM Db2 on Cloud

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

DTP46044.USERTABLE

Back

Export to CSV

USERNAME	ROLLNO	EMAIL	PASSWORD
VK	21	VK@gamil.com	1234

12:51 10-10-2022

DELETE TABLE:-

IBM Db2 on Cloud

Load DataLoad HistoryTablesViewsIndexesAliasesMQTsSequencesApplication objects

DTP46044.USERTABLE

Back

Export to CSV

USERNAME	ROLLNO	EMAIL	PASSWORD
PARAMESH	21	VK@gamil.com	1234
VK	23	VK@gamil.com	12D34

IBM Db2 on Cloud

Data objectsMy script

Filter objects

DTP46044

*Untitled - 1

BetaClassic

Run all

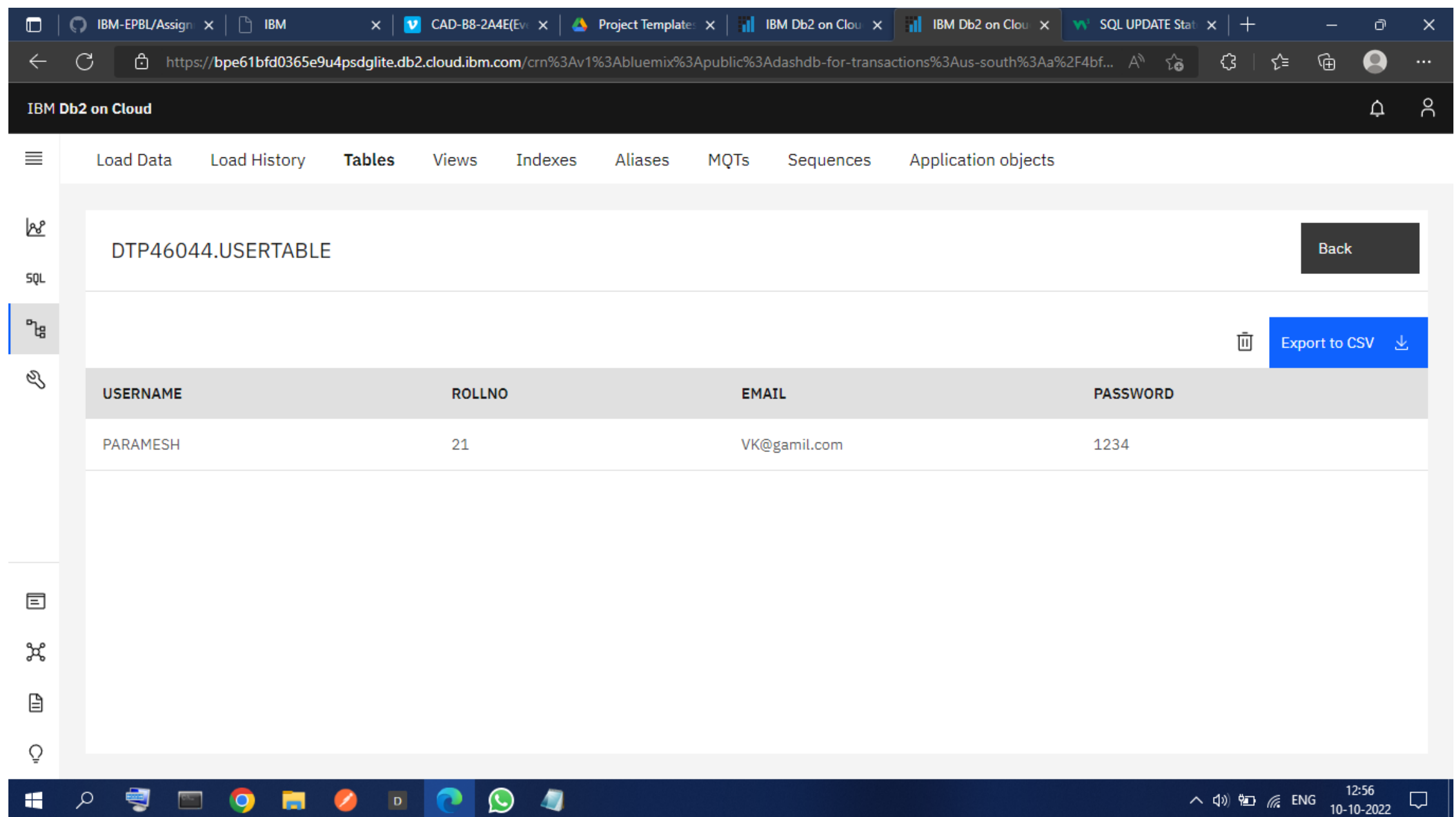
1DELETE FROM USERTABLE WHERE ROLLNO = 23 ;

History

Results

Find history

Script	Date	Status	Runtime
^Untitled - 1	Oct 10, 2022 1:02:49 PM	✓1	0.006 s
DELETE FROM USERTABLE WHERE ROLLNO = 23		✓	0.006 s
^Untitled - 1	Oct 10, 2022 1:00:11 PM	✓1	0.007 s
INSERT INTO USERTABLE VALUES ('VK',23,'VK@gamil.com','12D34')		✓	0.007 s
^Untitled - 1	Oct 10, 2022 12:59:55 PM	✗1	0.044 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

```
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=fbd88901-ebdb-4a4f-a32e-9822b9fb237b.c1ogj3sd0tgtu0lqde00.
databases.appdomain.cloud;PORT=32731;USERNAME=ntp46044;PASSWORD=95soX0sZGhb4To
Uj;SECURITY=SSL;SSLSERVERCERTIFICATE=DigiCertGlobalRootCA.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(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 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>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+VmmDGMN5t9U
J0Z" 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/css/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+VmmDGMN5t9U
J0Z" 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/css/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-color: aqua !important;
  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 x Service Details - IBM Cloud x IBM Db2 on Cloud x IBM

Not secure | 192.168.202.55:5000

Register Form

Parameshwaran

parameshvk3232@gmail.com

Enter Your Password

Register

already have an account ? please login [login!](#)

20:56 11-10-2022

Login Page:-

Smart Fashion Login x Service Details - IBM Cloud x IBM Db2 on Cloud x IBM

Not secure | 192.168.202.55:5000/login

Login Form

Username

Parameshwaran

Password

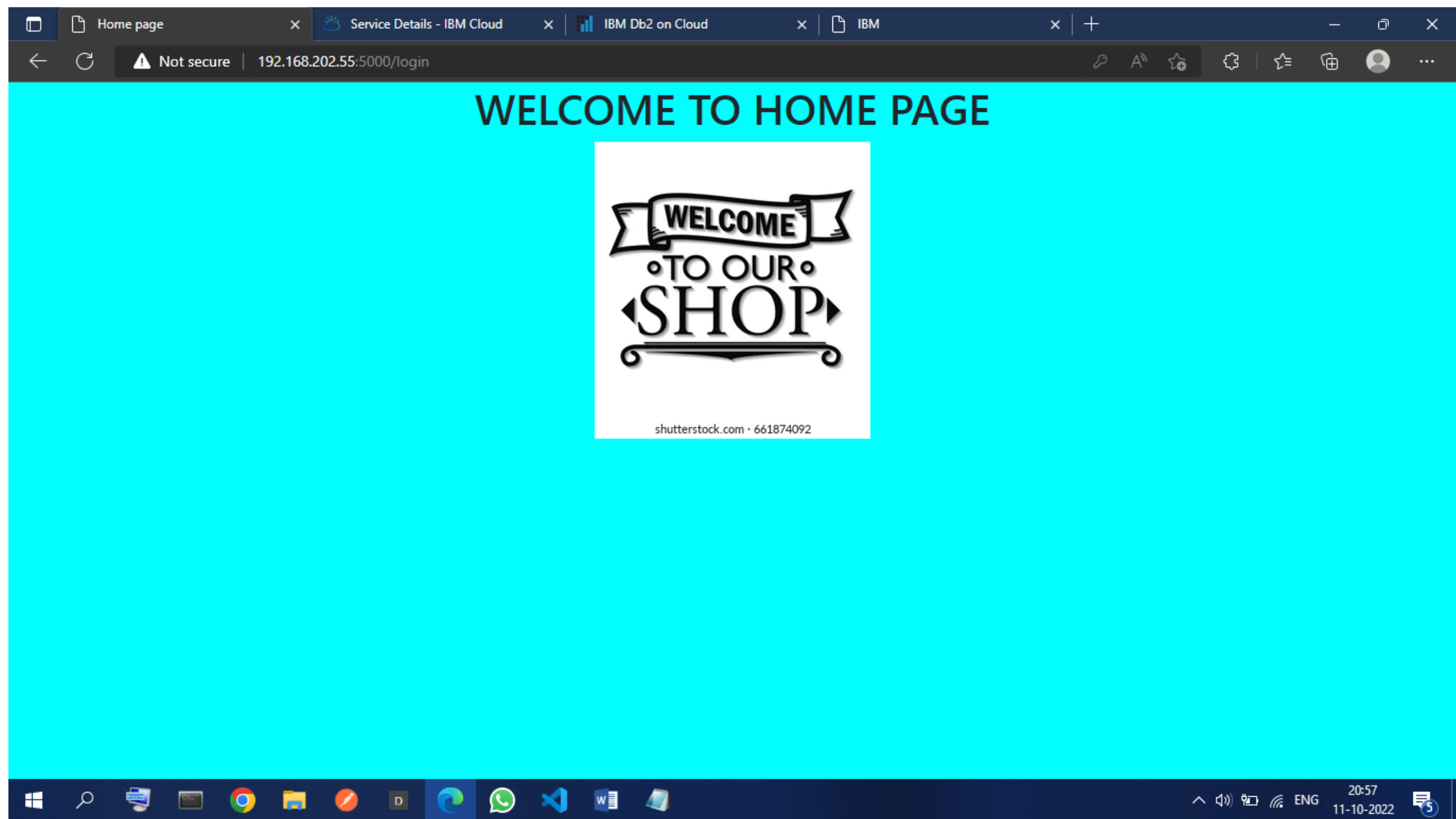
.....

Login

Don't have an account yet? Click here to [register!](#)

20:57 11-10-2022

Welcome Page:-



Data Base Table :-

A screenshot of the IBM Db2 on Cloud console. The browser address bar shows a long URL starting with 'https://bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/'. The console header shows 'IBM Db2 on Cloud' and a user profile icon. The left sidebar has a menu with icons for 'SQL' and 'Tables'. The main content area has a tabbed interface with 'Tables' selected. The table 'DTP46044.USERS' is displayed. It has three columns: 'USERNAME', 'EMAIL', and 'PASSWORD'. One row is visible with the values 'Parameshwaran', 'parameshvk3232@gmail.com', and '123432'. There are 'Back' and 'Export to CSV' buttons in the top right of the table view. The Windows taskbar is visible at the bottom.