

Assignment -2

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Questions:

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

The image shows two screenshots of the IBM Db2 on Cloud console. The top screenshot displays the 'Table definition' for the 'USER' table in the 'ZGP86687' schema. The table has four columns: USERNAME (CHAR, 20, NULLABLE), ROLLNUMBER (INTEGER, NULLABLE), EMAIL (CHAR, 35, NULLABLE), and PASSWORD (CHAR, 10, NULLABLE). The bottom screenshot shows the 'View data' page for the 'ZGP86687.USER' table, which is currently empty, displaying the message 'There is no data here yet'.

IBM Db2 on Cloud

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

Find schemas or tables Refresh

Tables

☒ Name Schema Properties

☒ USER ZGP86687 ...

Total: 1, selected: 1

Table definition

USER

Name	Data type	Nullable	Length	Scale
USERNAME	CHAR	Y	20	0
ROLLNUMBER	INTEGER	Y		0
EMAIL	CHAR	Y	35	0
PASSWORD	CHAR	Y	10	0

View data

ZGP86687.USER

Back

USERNAME ROLLNUMBER EMAIL PASSWORD

There is no data here yet

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

The screenshot shows the IBM Db2 on Cloud SQL editor interface. The left sidebar displays the 'Data objects' tree with 'ZGP86687' selected. The main editor area shows a SQL script with four INSERT statements. The 'History' tab is active, displaying a table of executed queries.

Script	Date	Status	Runtime
Untitled - 1	Nov 13, 2022 5:14:52 PM	✓	0.019 s
INSERT INTO USER VALUES('Suryaprakash P',1,'suryasuryaspk123@gmail.com','63797');		✓	0.006 s
INSERT INTO USER VALUES('Rajesh C R',2,'rajesh1001sujin@gmail.com','63828');		✓	0.005 s
INSERT INTO USER VALUES('Vignesh N',3,'viratvickyking143@gmail.com','63828');		✓	0.004 s
INSERT INTO USER VALUES('Vanathi S',4,'vanathi23032002a@gmail.com','82480');		✓	0.004 s

The screenshot shows the IBM Db2 on Cloud SQL editor interface with the 'Tables' tab selected. The table 'ZGP86687.USER' is displayed. The table has four columns: USERNAME, ROLLNUMBER, EMAIL, and PASSWORD. The data is as follows:

USERNAME	ROLLNUMBER	EMAIL	PASSWORD
Rajesh C R	2	rajesh1001sujin@gmail.com	63828
Suryaprakash P	1	suryasuryaspk123@gmail.com	63797
Vanathi S	4	vanathi23032002a@gmail.com	82480
Vignesh N	3	viratvickyking143@gmail.com	63828

DELETE TABLE:-

The screenshot shows the IBM Db2 on Cloud web interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, displaying a table named 'ZGP86687.USER'. A 'Back' button is in the top right corner. Below the table name, there is an 'Export to CSV' button. The table has four columns: 'USERNAME', 'ROLLNUMBER', 'EMAIL', and 'PASSWORD'. The data rows are as follows:

USERNAME	ROLLNUMBER	EMAIL	PASSWORD
Rajesh C R	2	rajesh1001sujin@gmail.com	63828
Suryaprakash P	1	suryasuryaspk123@gmail.com	63797
Vanathi S	4	vanathi23032002a@gmail.com	82480
Vignesh N	3	viratvickyking143@gmail.com	63828

The screenshot shows the IBM Db2 on Cloud web interface with the SQL editor open. The 'Data objects' panel on the left shows a tree view with 'ZGP86687', 'USER', 'Views', 'MQTs', 'Aliases', and 'Nicknames'. The SQL editor has two tabs: '*Untitled - 1' and '*Untitled - 2'. The SQL statement in the editor is:

```
1 delete from user where RollNumber=2;
```

The 'History' panel shows the execution results of the SQL statement. The table has four columns: 'Script', 'Date', 'Status', and 'Runtime'. The execution history is as follows:

Script	Date	Status	Runtime
Untitled - 2	Nov 13, 2022 5:18:08 PM	✓ 1	0.007 s
delete from user where RollNumber=2		✓	0.007 s
Untitled - 1	Nov 13, 2022 5:14:52 PM	✓ 4	0.019 s

Service Details - IBM Cloud | IBM Db2 on Cloud | CAD-88-2A4E(Evening Session) | IBM

bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3A%3A%3Apublic%3AAdashdb-for-transactions%3Aus-south%3Aa%2F2bd66852f17b46b2b168536359bce7ca%3Afab1291...

IBM Db2 on Cloud

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

ZGP86687.USER Back

Export to CSV

USERNAME	ROLLNUMBER	EMAIL	PASSWORD
Suryaprakash P	1	suryasuryaspk123@gmail.com	63797
Vanathi S	4	vanathi23032002a@gmail.com	82480
Vignesh N	3	viratvickyking143@gmail.com	63828

ENG IN 05:18 PM 13-11-2022

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, redirect, render_template, request, session, url_for
import re
import ibm_db
app = Flask(__name__)

app.secret_key = 'a'

conn = ibm_db.connect(
    "DATABASE=bludb;HOSTNAME=b1bc1829-6f45-4cd4-bef4-10cf081900bf.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32304;USERNAM
E=zgp86687;PASSWORD=qIed5beBPGveTpAo;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(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+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/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+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/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: rgb(22, 218, 244) !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: rgb(23, 214, 235);
  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:-

Service Details - IBM Cloud x IBM Db2 on Cloud x Smart Fashion register x Smart Fashion register x +

Not secure | 192.168.181.168:5000

Google Downloads Download desktop... Gmail YouTube Maps ASP.NET Core 6.0 C... uTorrent Web communicate - sury... K S RANGASAMY C...

Register Form

Suryaprakash P

suryasuryaspk123@gmail.com

.....

Register

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

ENG IN 10:02 AM 19-11-2022

Register Form

You have successfully registered !

Enter Your Username

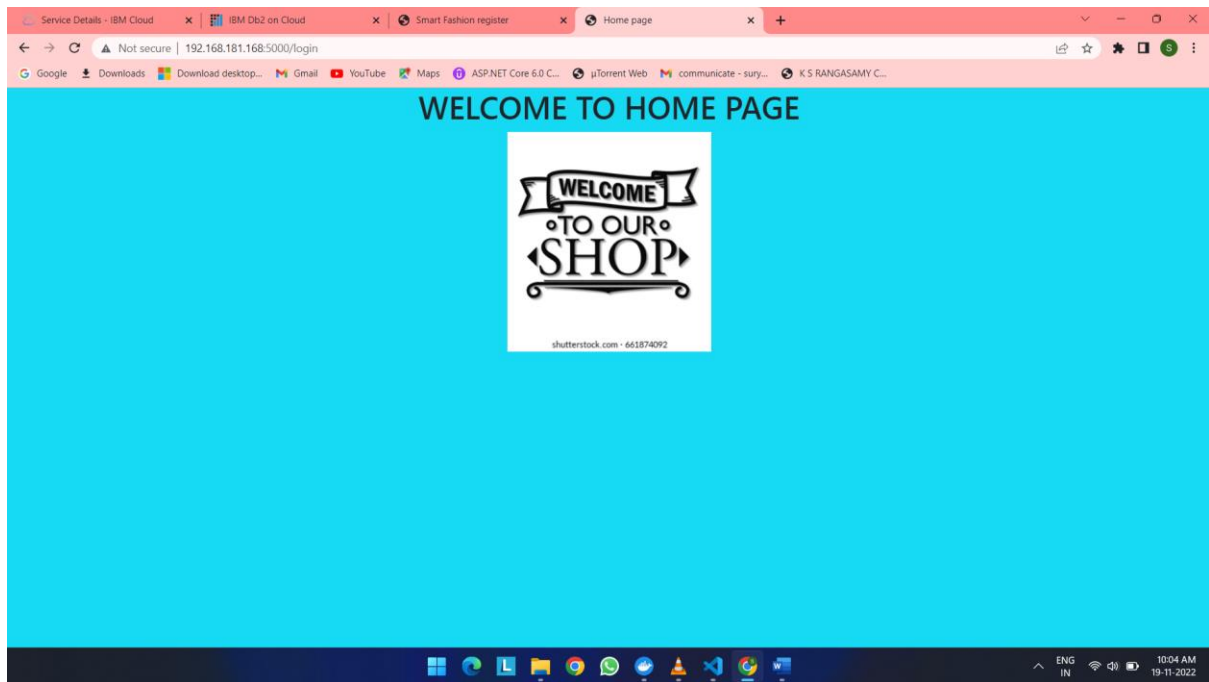
Enter Your Email ID

Enter Your Password

Register

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

ENG IN 10:03 AM 19-11-2022



Data Base Table :-

IBM Db2 on Cloud

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

ZGP86687.USERS

Back

Export to CSV

USERNAME	EMAIL	PASSWORD
Suryaprakash P	suryasuryaspk123@gmail.com	Prakash@001