

-----Assignment -2

IBM CLOUD DB2

Assignment Date	3 November 2022
Student Name	SURYA A
Student Roll Number	95221903065
Maximum Marks	2 Marks

**Questions:**

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

The top screenshot shows the IBM Db2 on Cloud interface. The 'Tables' tab is selected, and a table named 'USERTABLE' is listed under the schema 'DTP46044'. The 'Table definition' panel on the right shows the table structure:

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

The bottom screenshot shows the 'DTP46044.USERTABLE' view, which is currently empty with a message '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

Untitled - 1

Run all

1

2

INSERT INTO USERTABLE VALUES ('VK',21,'VK@gamil.com','1234')

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

IBM Db2 on Cloud

Load Data

Load History

Tables

Views

Indexes

Aliases

MQTs

Sequences

Application objects

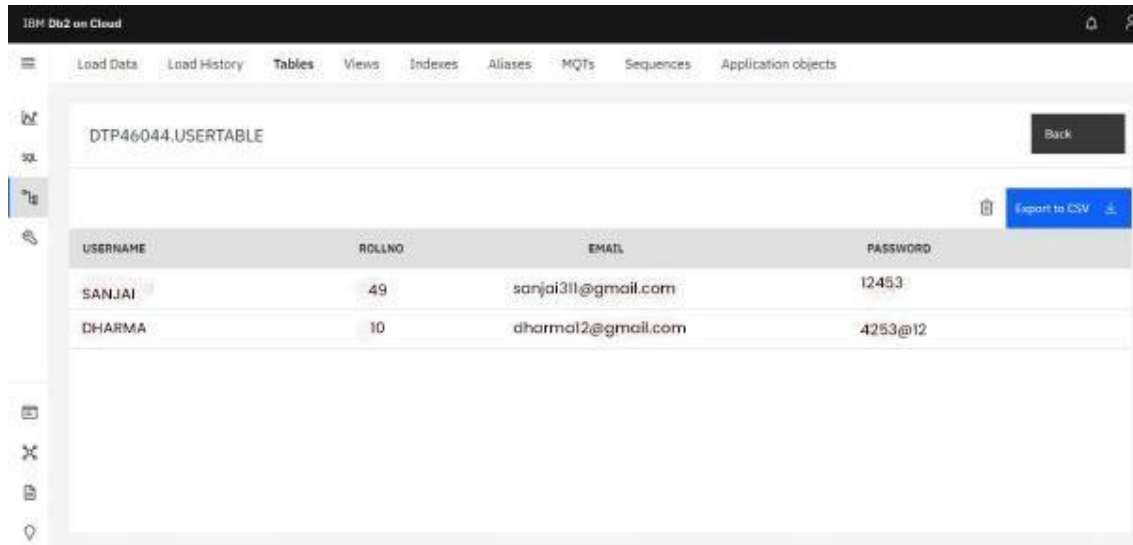
DTP46044.USERTABLE

Back

Export to CSV

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

## DELETE TABLE:-



IBM Db2 on Cloud

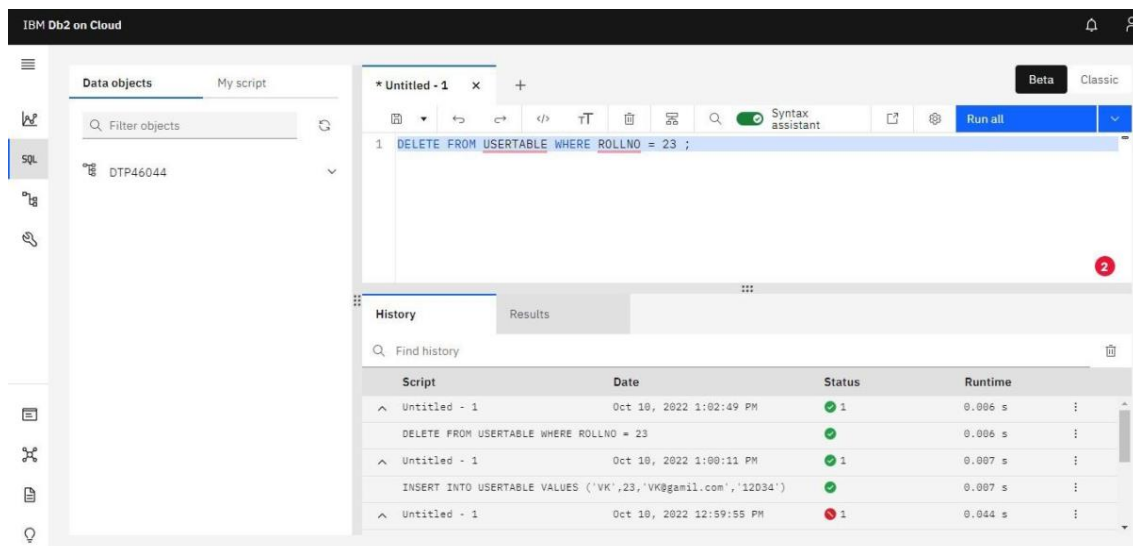
Load Data Load History Tables Views Indexes Aliases MQTs Sequences Application objects

DTP46044.USERTABLE

Back

Export to CSV

USERNAME	ROLLNO	EMAIL	PASSWORD
SANJAI	49	sanjai31@gmail.com	12453
DHARMA	10	dharmal2@gmail.com	4253@12



IBM Db2 on Cloud

Data objects My script

Filter objects

DTP46044

Untitled - 1

Beta Classic

Run all

1 DELETE FROM USERTABLE WHERE ROLLNO = 23 ;

History

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@gmail.com','12034')		✓	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.clogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32731;USERNA
M
E=dtP46044;PASSWORD=95soX0sZGhb4ToUj;SECURITY=SSL;SSLSERVERCERTIFICATE=DigiCe
r 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.cs
s"
integrity="sha384-
JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous">

```

```

    <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/fontawesome/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.cs
s
" integrity="sha384-
JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous">
  <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/fontawesome/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>
    </form>
  </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:-

The image shows a registration form titled "Register Form" centered on a solid blue background. The form is contained within a white rounded rectangle with a subtle drop shadow. It features three input fields: the first contains the text "SANJAI H", the second contains "sanjaihari2002@gmail.com", and the third is a password field with the placeholder text "Enter Your password". Below these fields is a blue "Register" button. At the bottom of the form, there is a link that reads "already have an account ? please login login!".

### Login Page:-



A login form titled "Login Form" is centered on a solid blue background. The form is a white rounded rectangle with a thin grey border. It contains a "Username" label above a text input field with the value "SANJAI H". Below this is a "Password" label above a password input field with masked characters "\*\*\*\*\*" and a toggle icon. A blue "Login" button is positioned below the password field. At the bottom of the form, there is a link: "Don't have an account yet? Click here to register".

### Welcome Page:-



### Data Base Table :-

[Back](#)

[Export to CSV](#)

USERNAME	ROLLNO	EMAIL	PASSWORD
SANJAI	49	sanjai311@gmail.com	12453
DHARMA	10	dharmal2@gmail.com	4253@12