

## Assignment -2

### IBM CLOUD DB2

Assignment Date	26 OCTOBER 2022
Student Name	DEEPIKA D
Student Roll Number	711719104022
Maximum Marks	2 Marks

#### Questions:

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

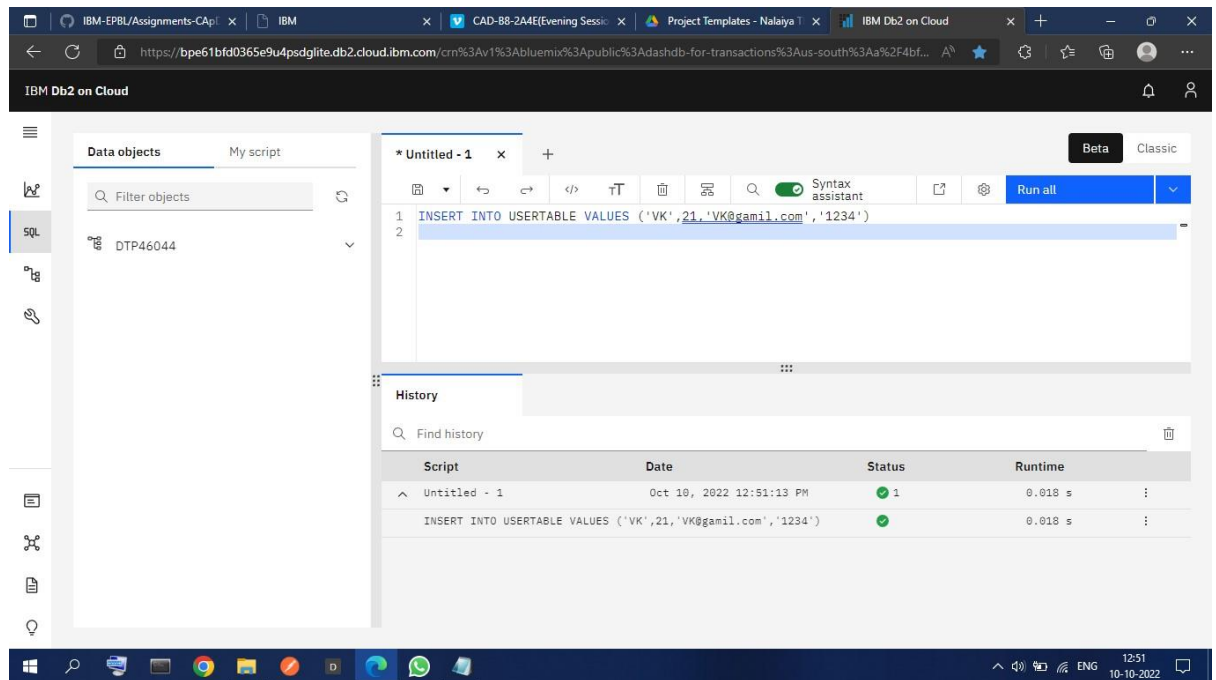
The first screenshot shows the IBM Db2 on Cloud console interface. The 'Tables' tab is selected, and a search for 'USERTABLE' in schema 'DTP46044' has been performed. The table definition is displayed on the right:

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 second screenshot shows the same console after clicking 'View data'. The table 'DTP46044.USERTABLE' is displayed with columns: USERNAME, ROLLNUMBER, EMAIL, and PASSWORD. The message 'There is no data here yet' is shown, indicating the table is empty.

2. Perform UPDATE,DELETE Queries with user table.

### UPDATE TABLE:-

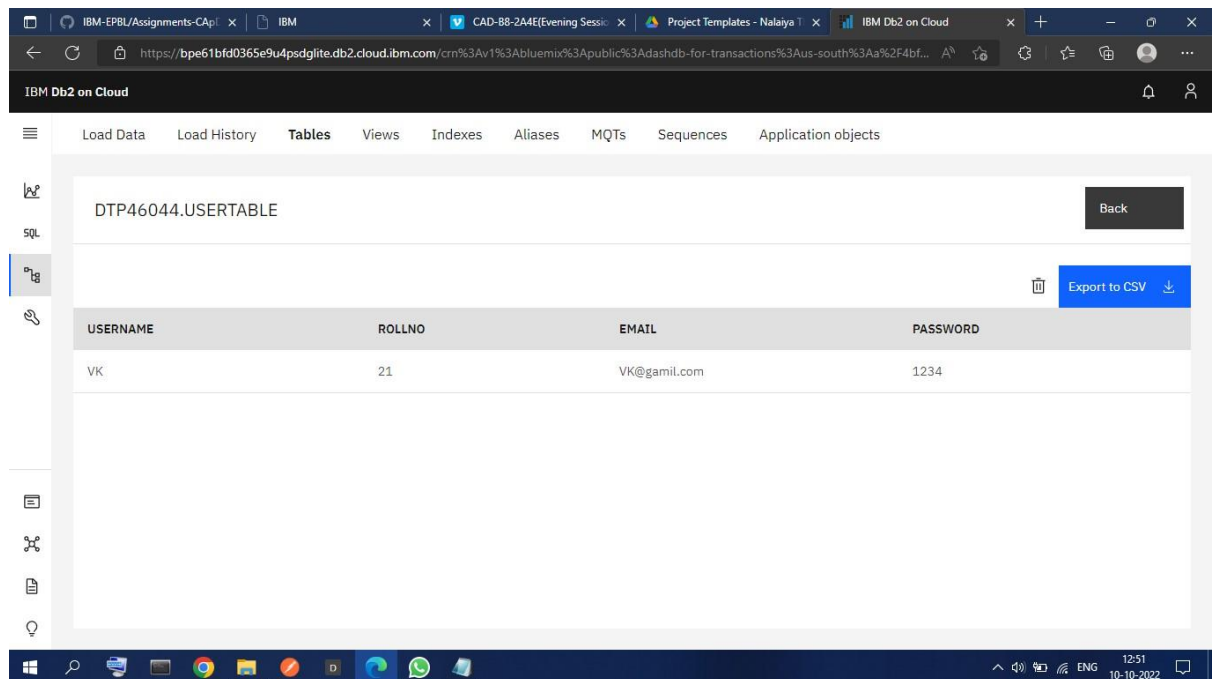


The screenshot shows the IBM Db2 on Cloud console. On the left, the 'Data objects' pane shows a table named 'DTP46044'. The main editor area shows a script titled '\*Untitled - 1' with the following SQL query:

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

Below the script editor, the 'History' pane shows a table with the following data:

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



The screenshot shows the IBM Db2 on Cloud console displaying the details of the 'DTP46044.USERTABLE' table. The table structure is as follows:

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

## DELETE TABLE:-

The screenshot shows the IBM Db2 on Cloud console interface. The top navigation bar includes tabs for Load Data, Load History, Tables, Views, Indexes, Aliases, MQTs, Sequences, and Application objects. The 'Tables' tab is selected, displaying the table 'DTP46044.USERTABLE'. A 'Back' button is visible in the top right corner. Below the table name, there is an 'Export to CSV' button. The table structure is shown with columns: USERNAME, ROLLNO, EMAIL, and PASSWORD. The data rows are as follows:

USERNAME	ROLLNO	EMAIL	PASSWORD
PARAMESH	21	VK@gamil.com	1234
VK	23	VK@gamil.com	12034

The screenshot shows the IBM Db2 on Cloud console interface with the SQL editor open. The 'Data objects' tab is selected, showing the table 'DTP46044'. The SQL editor contains the following statement:

```
1 DELETE FROM USERTABLE WHERE ROLLNO = 23 ;
```

The 'History' tab is selected, showing the execution history of the script. The history table is as follows:

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','12034')			0.007 s
Untitled - 1	Oct 10, 2022 12:59:55 PM	1	0.044 s

The screenshot shows the IBM Db2 on Cloud web interface. The table 'DTP46044.USERTABLE' is displayed with the following data:

USERNAME	ROLLNO	EMAIL	PASSWORD
PARAMESH	21	VK@gmail.com	1234

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

app = Flask(__name__)
app.secret_key = 'a'

conn = ibm_db.connect(
    "DATABASE=b1udb;HOSTNAME=fbd88901-ebdb-4a4f-a32e-9822b9fb237b.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32731;USERNAM
E=dtp46044;PASSWORD=95soX0sZGhb4ToUj;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/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/favicon32x32.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/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>
            <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 screenshot displays a web browser window with a registration form. The browser's address bar shows the URL 'n/?editors=1000'. The page has a black header with buttons for 'Save', 'Settings', 'Sign Up', and 'Log In'. The main content area has a bright cyan background. In the center is a white rounded rectangle titled 'Register Form'. It contains three input fields: the first has the text 'CASSANDRA MARIA MURPHY', the second has 'cassymaria67@gmail.com', and the third is a password field with dots. Below these is a blue 'Register' button. At the bottom of the form, it says 'already have an account ? please login [login!](#)'. The Windows taskbar is visible at the bottom with various application icons and a system clock showing 13:18 on 04-11-2022.

Assignments-CApD/Assignment x IBM-Project-43924-1660720670/ x Create a New Pen x +

n/?editors=1000

Save Settings Sign Up Log In

### Register Form

CASSANDRA MARIA MURPHY

cassymaria67@gmail.com

.....

Register

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

Search the web ENG IN 13:18 04-11-2022

## Login Page:-

en/?editors=1000

Save Settings Sign Up Log In

### Login Form

Username

cassymariya67@gmail.com

Password

.....

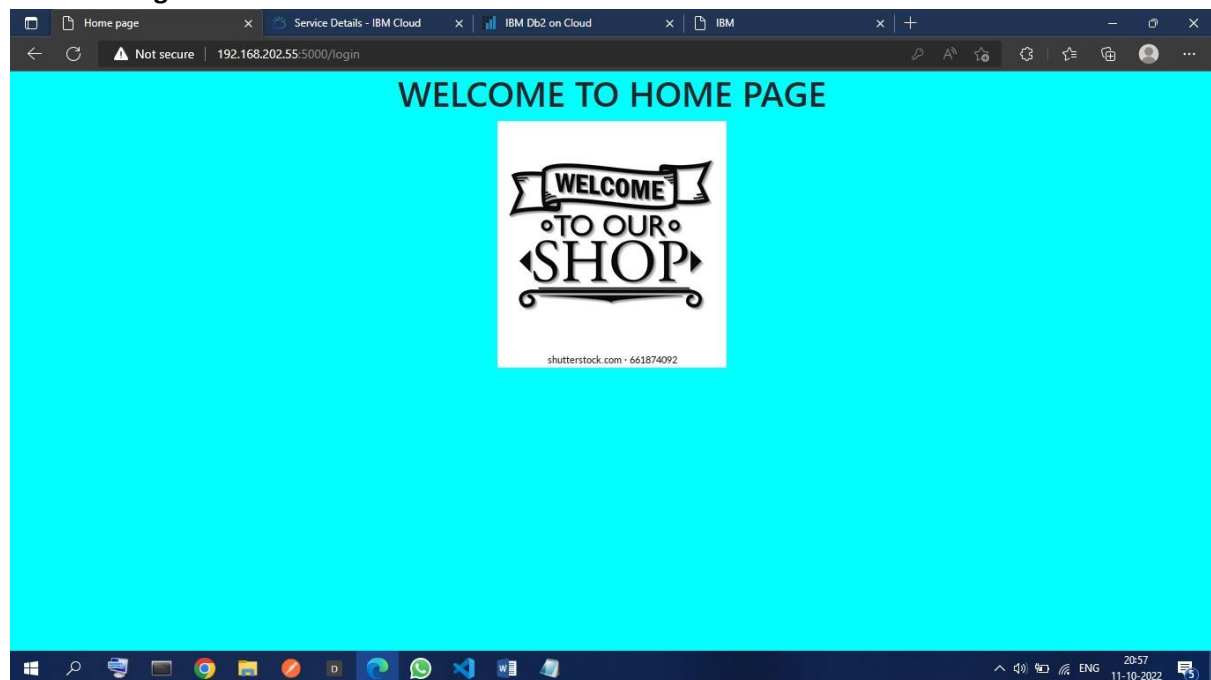
Login

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

Search the web

ENG IN 13:14 04-11-2022

## Welcome Page:-



## Data Base Table :-

IBM Db2 on Cloud

Load DataLoad History**Tables**ViewsIndexesAliasesMQTsSequencesApplication objects

DTP46044.USERS

Back

Export to CSV

USERNAME	EMAIL	PASSWORD
CASSANDRA MARIA MURPHY	cassymaria67@gmail.com	123432