

Assignment -2

IBM CLOUD DB2

Questions:

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

The screenshot shows the IBM Db2 on Cloud interface. The 'Tables' tab is selected, displaying a list of tables. A table named 'USERTABLE' is selected, and its definition is shown on the right. The table has four columns: USERNAME (CHAR, 5, 0), ROLLNUMBER (INTEGER, 0), EMAIL (CHAR, 5, 0), and PASSWORD (VARCHAR, 32, 0). All columns are nullable (Y).

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 screenshot shows the IBM Db2 on Cloud interface. The 'Table definition' for 'DTP46044.USERTABLE' is displayed. The table has four columns: USERNAME, ROLLNUMBER, EMAIL, and PASSWORD. The table is empty, and a message 'There is no data here yet' is shown.

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

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

The screenshot shows the IBM Db2 on Cloud SQL editor interface. On the left, the 'Data objects' pane shows a database 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')
```

The query has been executed successfully. The 'History' pane at the bottom shows the execution details:

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 SQL editor interface displaying the contents of the 'DTP46044.USERTABLE' table. The table has the following columns: USERNAME, ROLLNO, EMAIL, and PASSWORD. The table contains one row of data:

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

The interface also includes a 'Back' button and an 'Export to CSV' button.

DELETE TABLE:-

IBM Db2 on Cloud

Load DataLoad History**Tables**ViewsIndexesAliasesMQTsSequencesApplication objects

DTP46044.USERTABLE

Back

Export to CSV

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

IBM Db2 on Cloud

Data objectsMy script

Filter objectsDTP46044

Untitled - 1

1DELETE FROM USERTABLE WHERE ROLLNO = 23 ;

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

USERNAME	ROLLNO	EMAIL	PASSWORD
PARAMESH	21	VK@gamil.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 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;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/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/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;
}

```

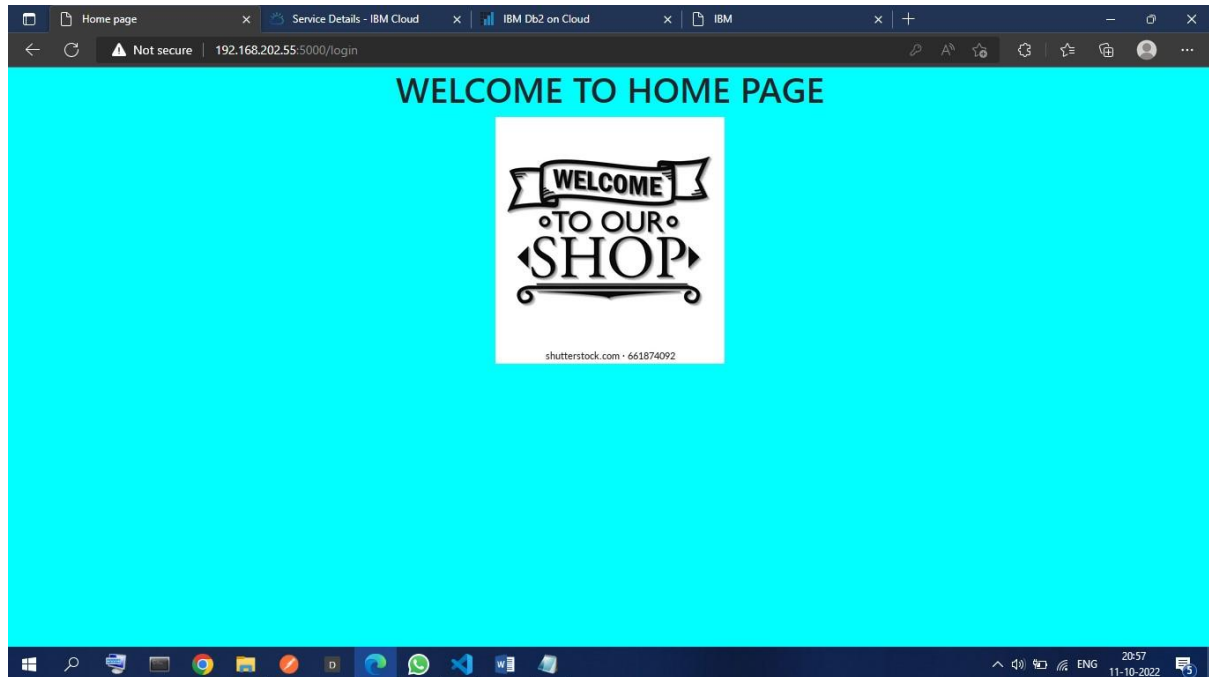
Output:- registration page:-

login!'. The browser's address bar shows '192.168.202.55:5000'."/>

Login Page:-

register!'. The browser's address bar shows '192.168.202.55:5000/login'."/>

Welcome Page:-



Data Base Table :-

IBM Db2 on Cloud			
Load Data Load History Tables Views Indexes Aliases MQTs Sequences Application objects			
DTP46044.USERS			Back
			Export to CSV
USERNAME	EMAIL	PASSWORD	
Parameshwaran	parameshvk3232@gmail.com	123432	