

Assignment -2

IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	Bandi Alex S
Student Roll Number	311019205009
Maximum Marks	2 Marks
Team ID	PNT2022TMID27400

Questions:

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

The screenshot shows the IBM Db2 on Cloud web interface. The 'Tables' tab is active, displaying a list of tables. The 'USER' table is selected. The 'Table definition' pane on the right shows the table structure:

Name	Data type	Nullable	Length	Scale
USERNAME	VARCHAR	Y	32	0
EMAIL	VARCHAR	Y	32	0
PASSWORD	VARCHAR	Y	32	0

The screenshot shows the 'View data' page for the 'USER' table. The table contains the following data:

USERNAME	EMAIL	PASSWORD
abishek	19it01@kcgcollege.com	12345678
alex	19it07@kcgcollege.com	12345678
ashik	hameedashik100@gmail.com	1234578

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

The screenshot shows the IBM Db2 on Cloud SQL editor interface. The left sidebar contains a 'Data objects' tab and a 'Saved objects' tab. The 'Saved scripts' section is active, displaying a list of saved scripts. The main editor area shows a script titled 'Untitled - 1' with the following SQL code:

```
1 INSERT INTO user (username, email, password)
2 VALUES ('monish','19it30@kcgcollege.com','12345678');
3
```

The 'History' tab is selected, showing a table of script execution history:

Script	Date	Status	Runtime
Untitled - 1	Oct 31, 2022 11:35:12 AM	✓ 1	0.010 s
INSERT INTO user (username, email, password) VALUES ('monish'...		✓	0.010 s

The screenshot shows the IBM Db2 on Cloud Tables view. 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 'XYQ14276.USER'. The table has three columns: 'USERNAME', 'EMAIL', and 'PASSWORD'. The data is as follows:

USERNAME	EMAIL	PASSWORD
abishek	19it01@kcgcollege.com	12345678
alex	19it07@kcgcollege.com	12345678
ashik	hameedashik100@gmail.com	12345678
monish	19it30@kcgcollege.com	12345678

DELETE TABLE:-

The screenshot shows the IBM Db2 on Cloud SQL editor interface. The left sidebar contains a 'Saved scripts' list with various templates. The main editor area shows a script named 'Untitled - 1' with the following SQL statement:

```
1 DELETE FROM user WHERE username=monish;
```

The 'History' tab is active, displaying a table of executed scripts:

Script	Date	Status	Runtime
Untitled - 1	Oct 31, 2022 11:35:12 AM	✓ 1	0.010 s
INSERT INTO user (username, email, password) VALUES ('monish'...		✓	0.010 s

The screenshot shows the IBM Db2 on Cloud 'Tables' view for the 'XYQ14276.USER' table. The table structure is as follows:

USERNAME	EMAIL	PASSWORD
abishek	19it01@kcgcollege.com	12345678
alex	19it07@kcgcollege.com	12345678
ashik	hameedashik100@gmail.com	1234578

An 'Export to CSV' button is visible in the top right corner of the table view.

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=ntp46044;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/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: 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:-

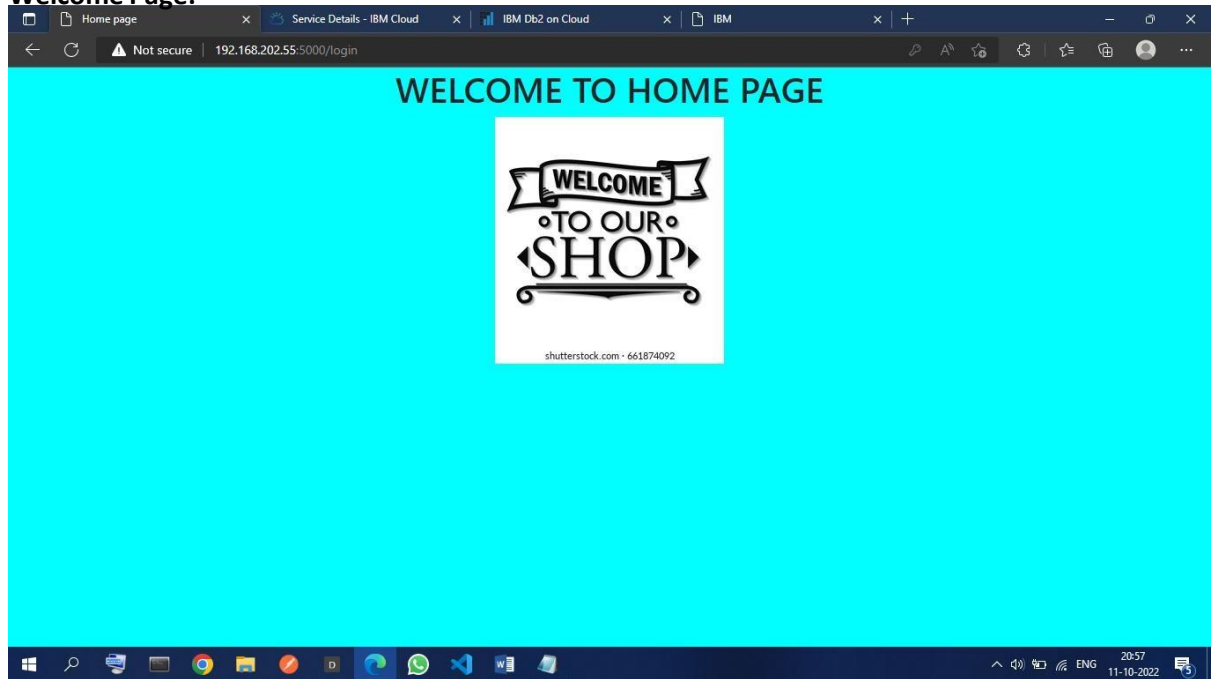
registration page:-

The screenshot shows a web browser window with the address bar displaying "192.168.202.55:5000". The page has a solid cyan background. In the center, there is a white rounded rectangle containing the "Register Form". The form includes three input fields: the first contains "Parameshwaran", the second contains "parameshvk3232@gmail.com", and the third is labeled "Enter Your Password". Below these fields is a blue "Register" button. At the bottom of the white box, there is a link that says "already have an account ? please login login!". The browser's taskbar at the bottom shows various application icons and the system clock indicating 20:56 on 11-10-2022.

Login Page:-

The screenshot shows a web browser window with the address bar displaying "192.168.202.55:5000/login". The page has a solid cyan background. In the center, there is a white rounded rectangle containing the "Login Form". The form includes two input fields: the first is labeled "Username" and contains "Parameshwaran", and the second is labeled "Password" and contains six dots, with an eye icon to its right. Below these fields is a blue "Login" button. At the bottom of the white box, there is a link that says "Don't have an account yet? Click here to register!". The browser's taskbar at the bottom shows various application icons and the system clock indicating 20:57 on 11-10-2022.

Welcome Page:-



Data Base Table :-

The screenshot displays 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, showing a list of tables. The table 'DTP46Q44.USERS' is highlighted, and its details are shown below. The table has three columns: 'USERNAME', 'EMAIL', and 'PASSWORD'. A single row of data is visible, with 'Parameshwaran' in the USERNAME column, 'parameshvk3232@gmail.com' in the EMAIL column, and '123432' in the PASSWORD column. There are buttons for 'Back' and 'Export to CSV' in the top right corner of the table view. The Windows taskbar at the bottom shows various application icons and the system clock indicating 20:57 on 11-10-2022.

USERNAME	EMAIL	PASSWORD
Parameshwaran	parameshvk3232@gmail.com	123432