

Assignment -2
IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	GOKUL. R
Student Roll Number	110619205002
Maximum Marks	2 Marks

Questions:

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

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
USERTABLE	DTP46044	...

Total: 1, selected: 1


Table definition

USERTABLE No statistics available

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

View data

DTP46044.USERTABLE Back

USERNAME	ROLLNUMBER	EMAIL	PASSWORD
 <p>There is no data here yet</p>			

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

IBM Db2 on Cloud

SQL

Filter objects

DTP46044

*Untitled - 1

Beta Classic

Syntax assistant

Run all

```

1 INSERT INTO USERTABLE VALUES ('VK',21,'VK@gamil.com','1234')
2

```

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
PARAMESH	21	VK@gamil.com	1234
VK	23	VK@gamil.com	12034

IBM Db2 on Cloud

Data objects My script

Filter objects

DTP46044

Untitled - 1

```
1 DELETE 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

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@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

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:-**

Register Form

Parameshwaran

parameshvk3232@gmail.com

Enter Your Password

Register

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

Login Page:-

Login Form

Username

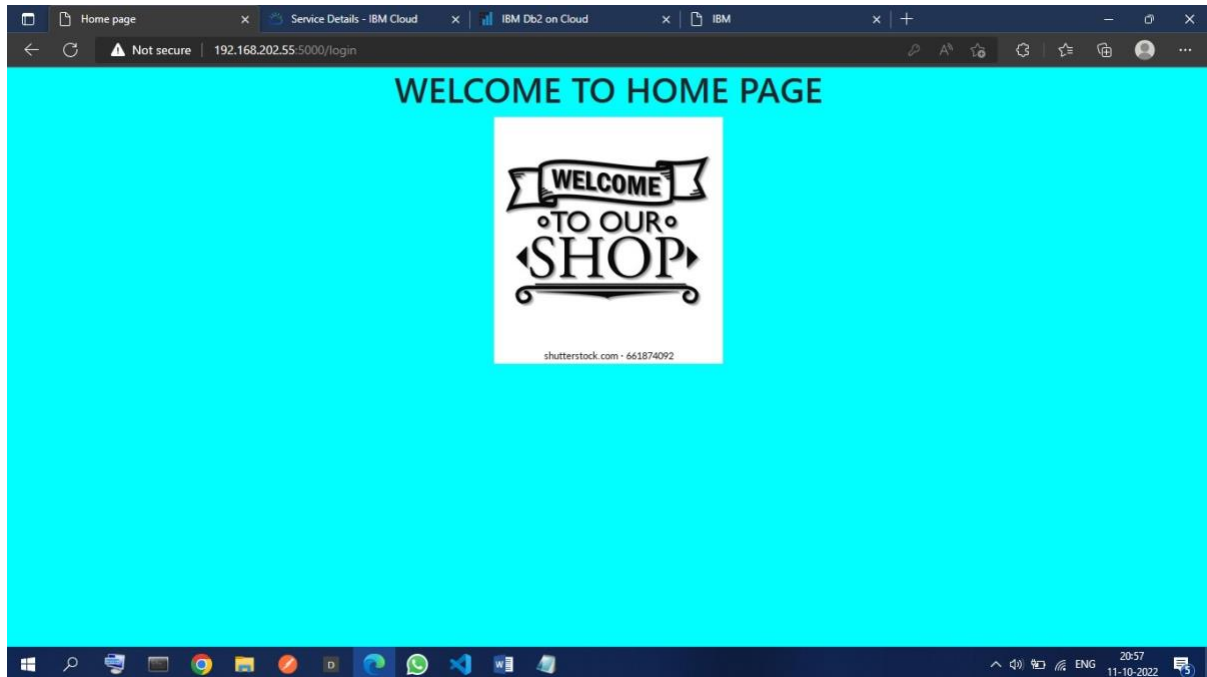
Parameshwaran

Password

Login

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

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 table named 'DTP46044.USERS'. A 'Back' button is located in the top right corner of the table view. Below the table name, there is a table structure with three columns: 'USERNAME', 'EMAIL', and 'PASSWORD'. The 'PASSWORD' column contains a value '123432' which is highlighted in blue. An 'Export to CSV' button is visible in the top right corner of the table view. The console also features a left sidebar with icons for various database operations and a bottom status bar with system information.

USERNAME	EMAIL	PASSWORD
Parameshwaran	parameshvk3232@gmail.com	123432