

Assignment -2

IBM CLOUD DB2

Assignment Date	29 September 2022
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Maximum Marks	2 Marks

Questions:

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

The top screenshot displays the IBM Db2 on Cloud console interface. The 'Tables' tab is selected, showing a list of tables. The table 'USERTABLE' in the schema 'DTP46044' is selected. The 'Table definition' pane on the right shows the following columns:

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. The view is currently empty, displaying a message: 'There is no data here yet'.

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 database named 'DTP46044'. The main area is the SQL editor, titled '*Untitled - 1', containing the following SQL statement:

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

Below the editor is the 'History' pane, which shows a table of executed scripts:

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 with the 'Tables' tab selected. The table 'DTP46044.USERTABLE' is displayed. The table structure is as follows:

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

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

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@gmail.com	1234
VK	23	VK@gmail.com	12034

IBM Db2 on Cloud

Data objects My script

Filter objects

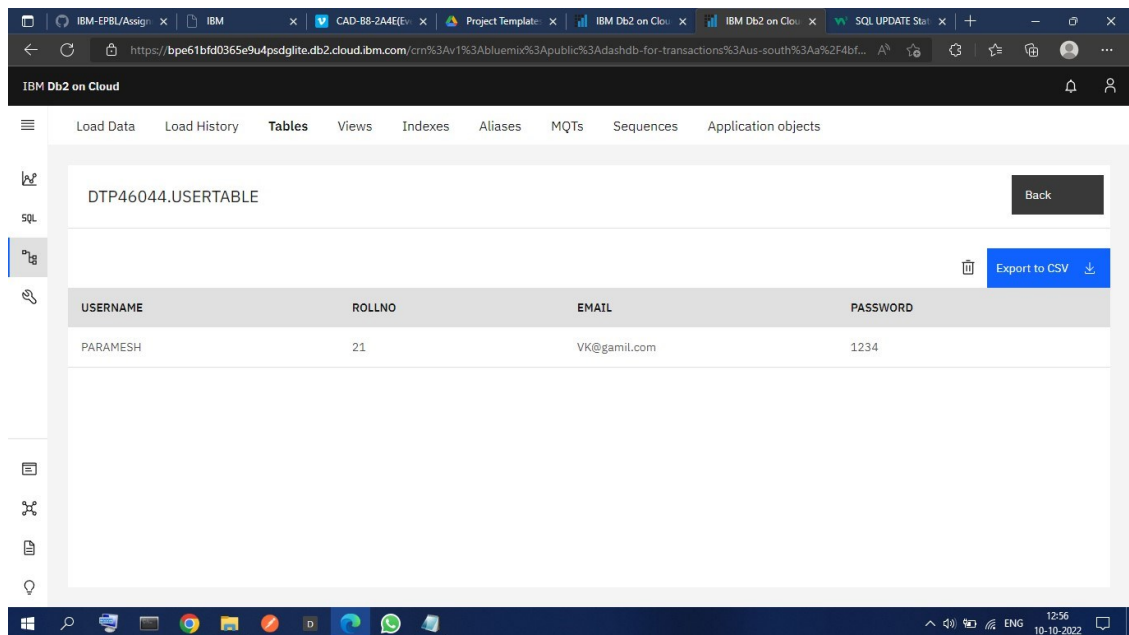
DTP46044

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@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.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;
}

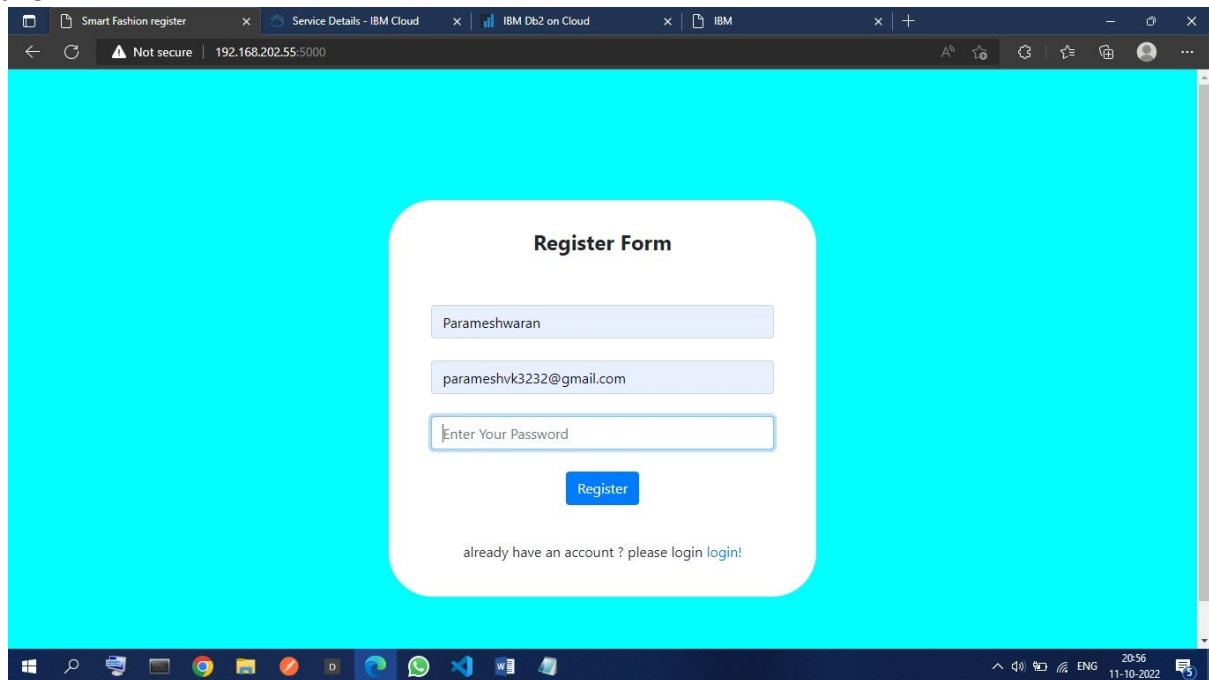
body {
background-color: aqua
!important; display: flex;
flex-direction: column; align-
items: center; justify-content:
center;
} form {
display:
flex; flex-direction:
column; align-items:
center; justify-
content: center;
background-color: white;
width: 40%; height:
450px; border-radius:
50px; margin: 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;
```

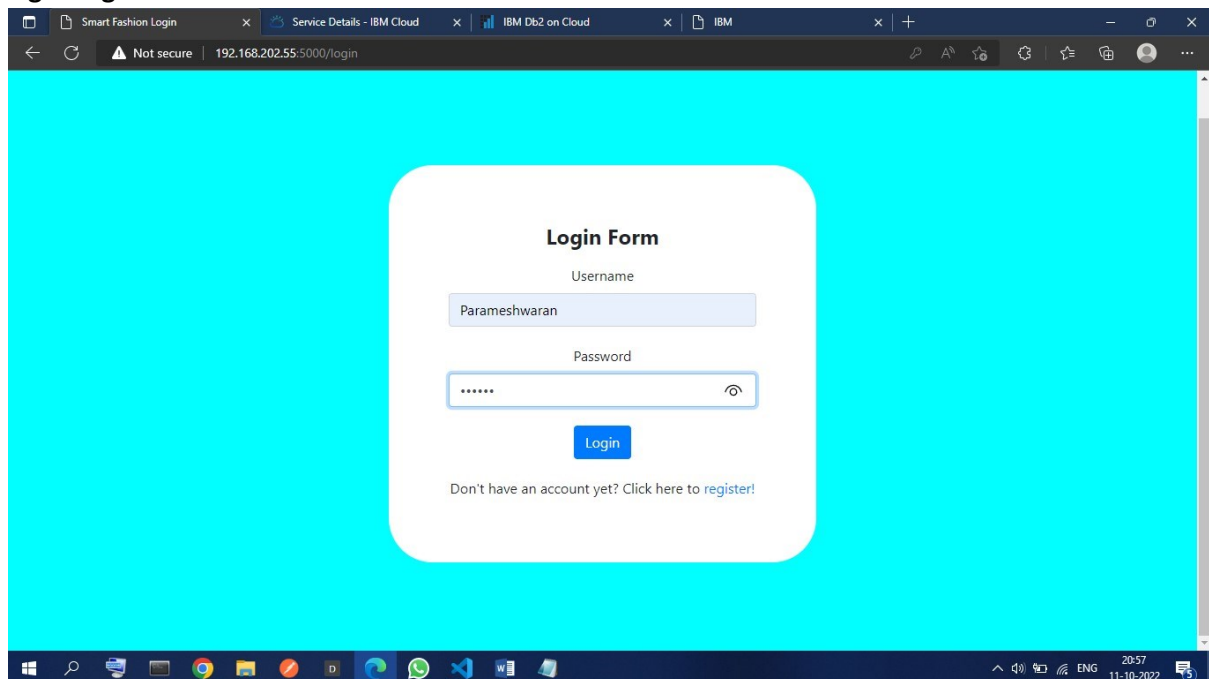
```
}  
  
.form-text-h2 {    font-size: x-large;    padding-top: 10px;  
}
```

Output:- registration page:-



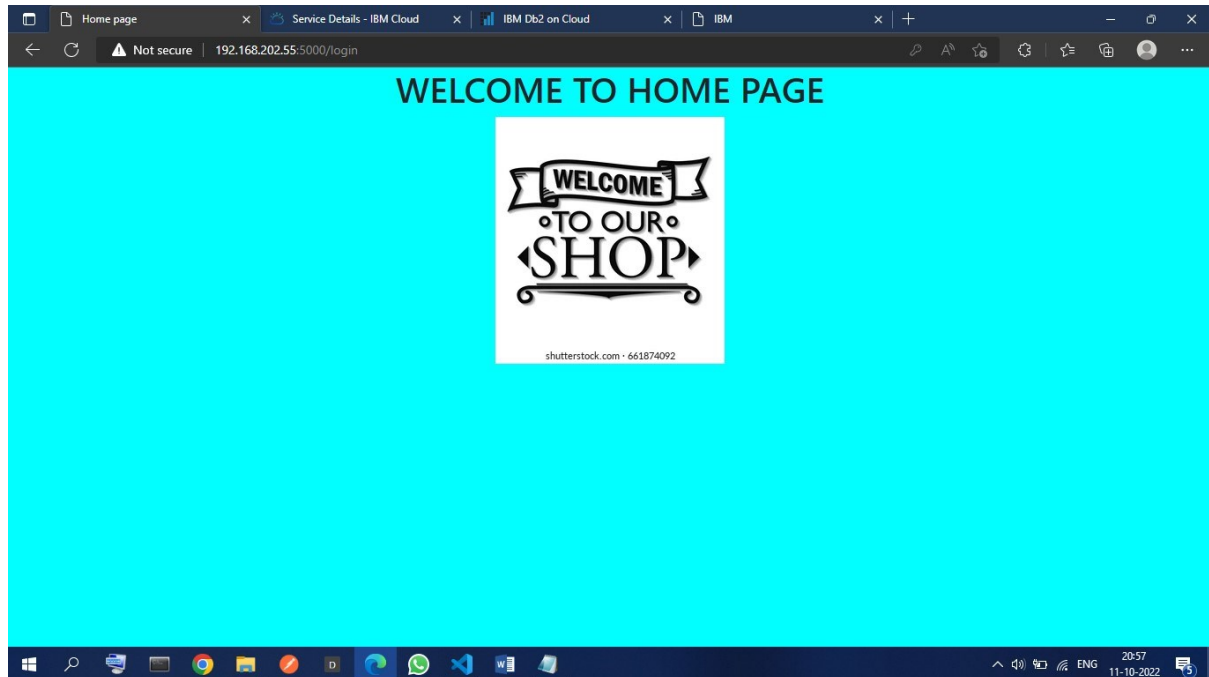
A screenshot of a web browser displaying a registration form. The browser's address bar shows the URL "192.168.202.55:5000". The page has a solid cyan background. In the center, there is a white rounded rectangle containing the "Register Form". The form includes three input fields: the first contains "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 form, there is a link that says "already have an account ? please login login!". The Windows taskbar is visible at the bottom of the screen.

Login Page:-



A screenshot of a web browser displaying a login form. The browser's address bar shows the URL "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. Below these fields is a blue "Login" button. At the bottom of the form, there is a link that says "Don't have an account yet? Click here to register!". The Windows taskbar is visible at the bottom of the screen.

Welcome Page:-



Data Base Table :-

