

Assignment -2

IBM CLOUD DB2

Assignment Date	29 September 2022
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Student Roll Number	412319104001
Maximum Marks	2 Marks

Questions:

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

The top screenshot shows the IBM Db2 on Cloud console interface. The 'Tables' tab is selected, and a table named 'USERTABLE' is listed under the schema 'DTP46044'. The table definition is shown on the right, with columns: USERNAME (CHAR, 5, nullable), ROLLNUMBER (INTEGER, nullable), EMAIL (CHAR, 5, nullable), and PASSWORD (VARCHAR, 32, nullable). The bottom screenshot shows the 'DTP46044.USERTABLE' page, which is currently empty with a message 'There is no data here yet'.

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

IBM Db2 on Cloud

Data objects My script

Filter objects

DTP46044

SQL

*Untitled - 1

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

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

Windows taskbar: 12:51 10-10-2022

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

Windows taskbar: 12:51 10-10-2022

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

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

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;
}

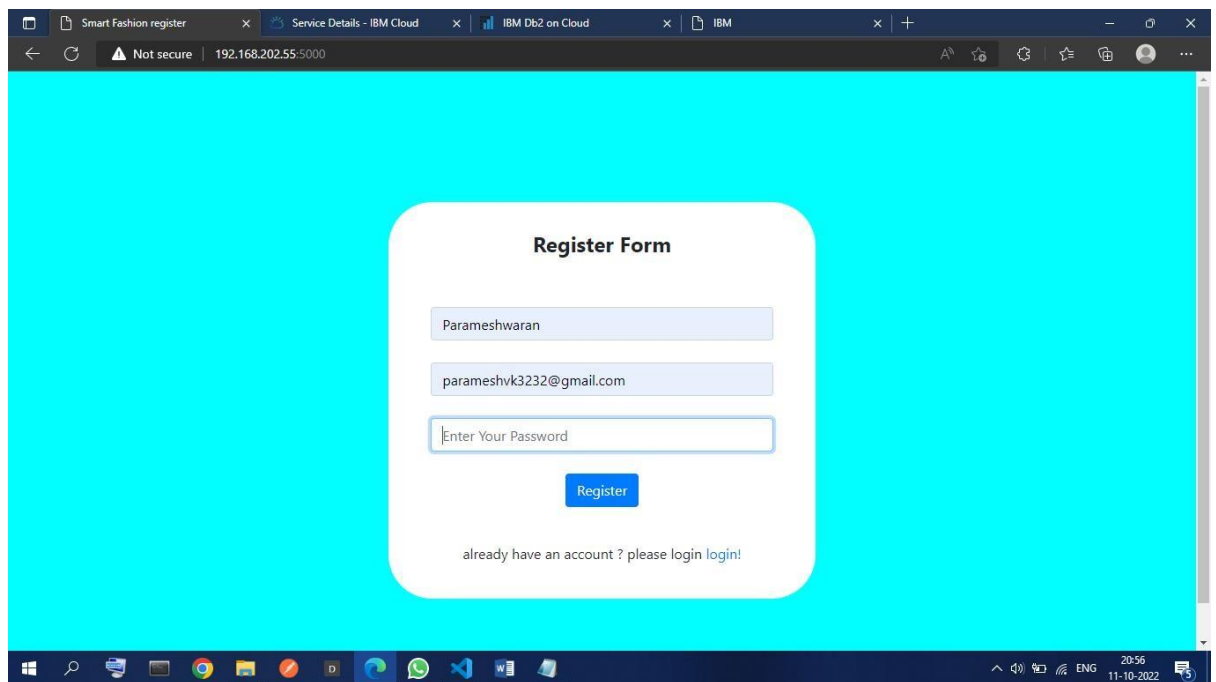
input {
width: 80% !important;
}

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



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 red 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 Windows taskbar is visible at the bottom of the screen.

Register Form

Parameshwaran

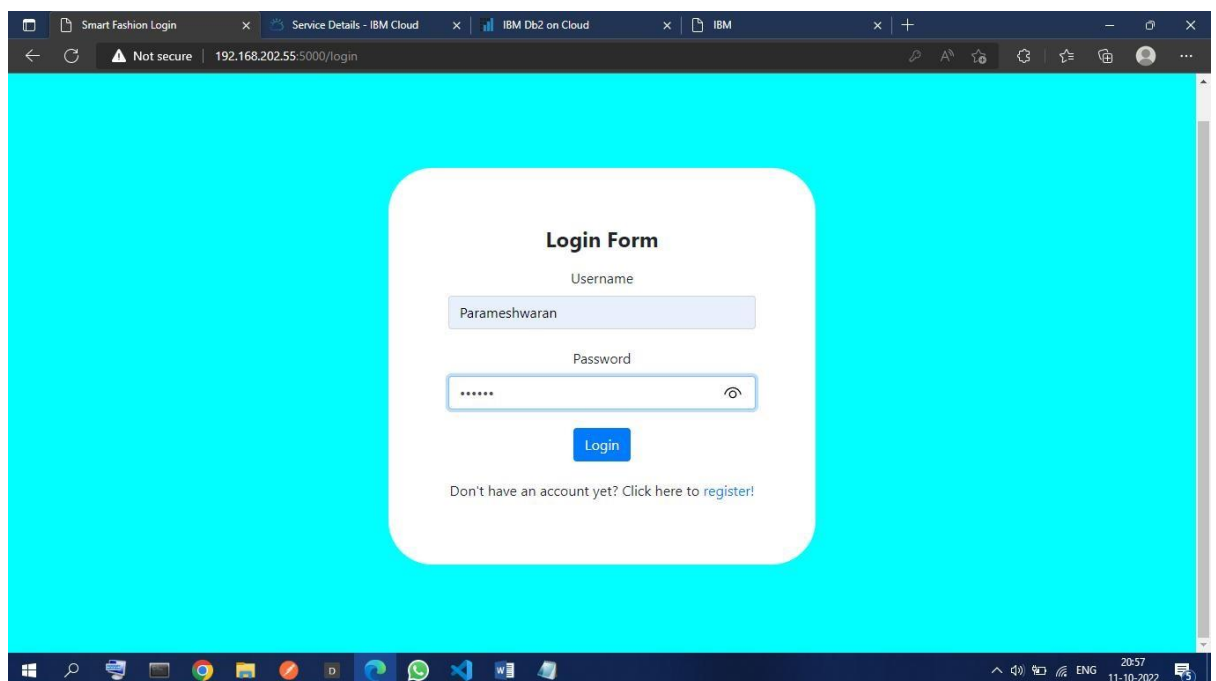
parameshvk3232@gmail.com

Enter Your Password

Register

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

page: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 red 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 "*****". 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 Windows taskbar is visible at the bottom of the screen.

Login Form

Username

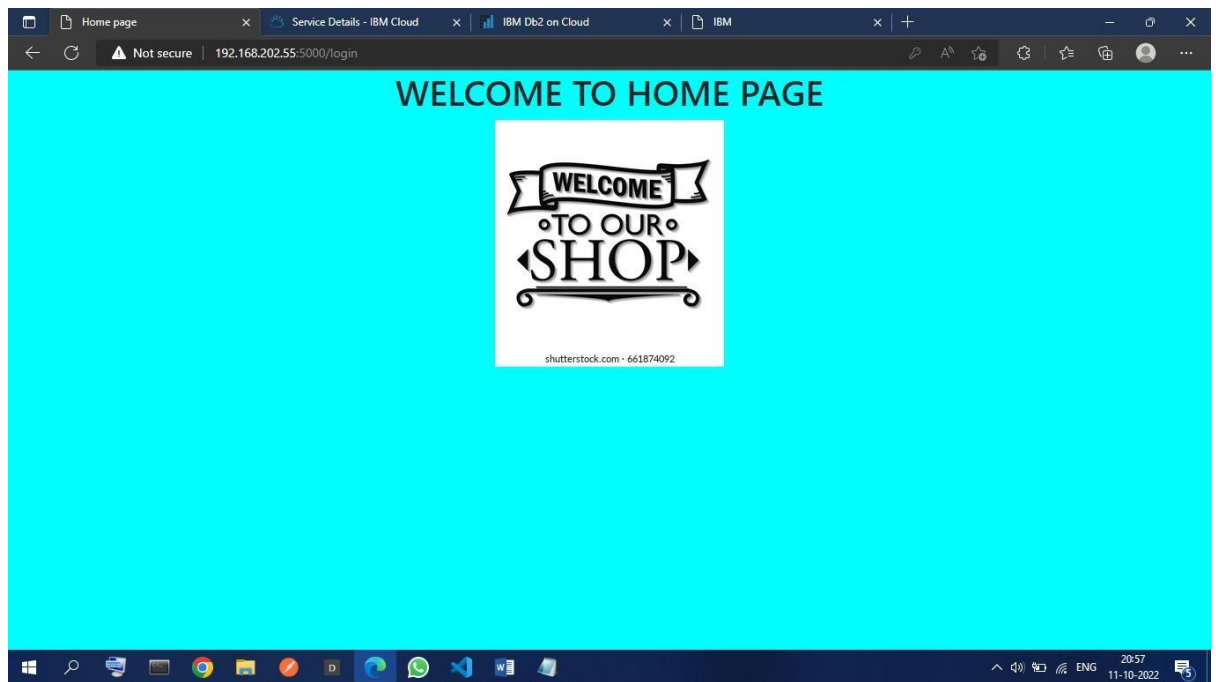
Parameshwaran

Password

Login

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

Welcome Page:-



Data Base Table :-

A screenshot of the IBM Db2 on Cloud console. The browser address bar shows a long URL. The console header is 'IBM Db2 on Cloud'. Below the header, there are tabs for 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected. On the left sidebar, there are icons for 'SQL', 'Data', and 'Security'. The main content area shows a table named 'DTP46044.USERS'. There is a 'Back' button in the top right corner of the table view. Below the table name, there is an 'Export to CSV' button. The table has three columns: 'USERNAME', 'EMAIL', and 'PASSWORD'. There is one data row with the following values: 'Parameshwaran', 'parameshvk3232@gmail.com', and '123432'. The Windows taskbar is visible at the bottom.