

Assignment -2

IBM CLOUD DB2

Assignment Date	29 September 2022
Student Name	K.Peratchi Selvi
Student Roll Number	952819104039
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 New table

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

IBM Db2 on Cloud

Load Data Load History **Tables** Views Indexes Aliases MQTs Sequences Application objects

DTP46044.USERTABLE Back

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

There is no data here yet

2. Perform UPDATE, DELETE Queries with user table.

UPDATE TABLE:-

The screenshot shows the IBM Db2 on Cloud interface. On the left, the 'Data objects' pane shows a database named 'DTP46044'. The main area is a script editor titled '*Untitled - 1' with a 'Run all' button. The script contains two lines of SQL:

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

Below the script editor is a 'History' table showing the execution of the script:

Script	Date	Status	Runtime
Untitled - 1	Oct 10, 2022 12:51:13 PM	✓ 1	0.018 s
INSERT INTO USERTABLE VALUES ('VK',21,'VK@gmail.com','1234')		✓	0.018 s

The screenshot shows the IBM Db2 on Cloud interface with the 'Tables' tab selected. The table 'DTP46044.USERTABLE' is displayed. The table structure is as follows:

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

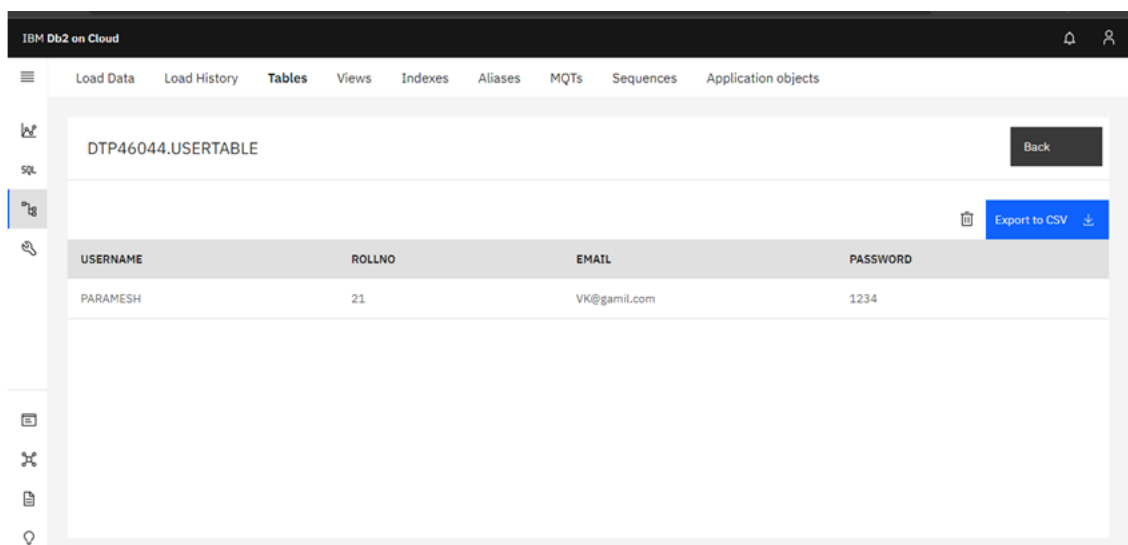
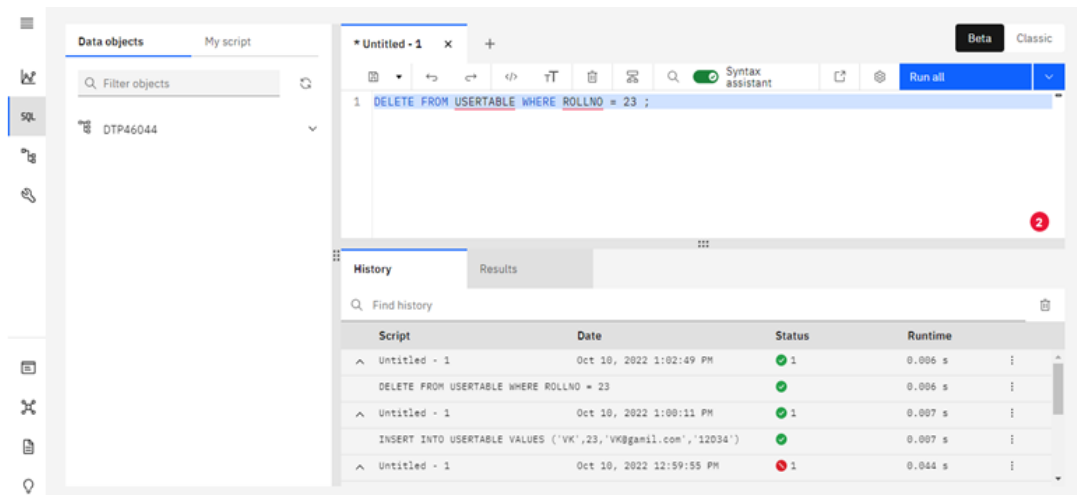
Buttons for 'Back' and 'Export to CSV' are visible.

DELETE TABLE:-

The screenshot shows the IBM Db2 on Cloud interface with the 'Tables' tab selected. The table 'DTP46044.USERTABLE' is displayed. The table structure is as follows:

USERNAME	ROLLNO	EMAIL	PASSWORD
PARAMESH	21	VK@gmail.com	1234
VK	23	VK@gmail.com	12D34

Buttons for 'Back' and 'Export to CSV' are visible.



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(prep_stmt,1, username)
            ibm_db.bind_param(prep_stmt,2, email)
            ibm_db.bind_param(prep_stmt,3, password)
            ibm_db.execute(prep_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

```

<!DOCTYPEhtml>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible"content="IE=edge">
    <metaname="viewport"content="width=device-width, initial-scale=1.0">
    <title>Smart Fashion register</title>
    <!-- bootstrap csscdn-->
    <link
rel="stylesheet"href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/b
ootstrap.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="styl
esheet">
    <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"> </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

```

<!DOCTYPEhtml>
<htmlLang="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>
  <link rel="icon" type="image/png" sizes="16x16" href="/assets/img/favicon-
32x32.png"> <link
rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/b
ootstrap.min.css"
  integrity="sha384-
JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z" crossorigin="
anonymous">

```

```

    <linkrel="stylesheet"href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/4.7.0/css/font-awesome.css">
    <!--css stylesheet -->
    <linkrel="stylesheet"href="/static/css/style2.css">
    <!-- font styles cdn-->
    <linkrel="preconnect"href="https://fonts.gstatic.com">
    <link
href="https://fonts.googleapis.com/css2?family=Alegreya&display=swap"rel="styl
esheet">
    <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"></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;
}

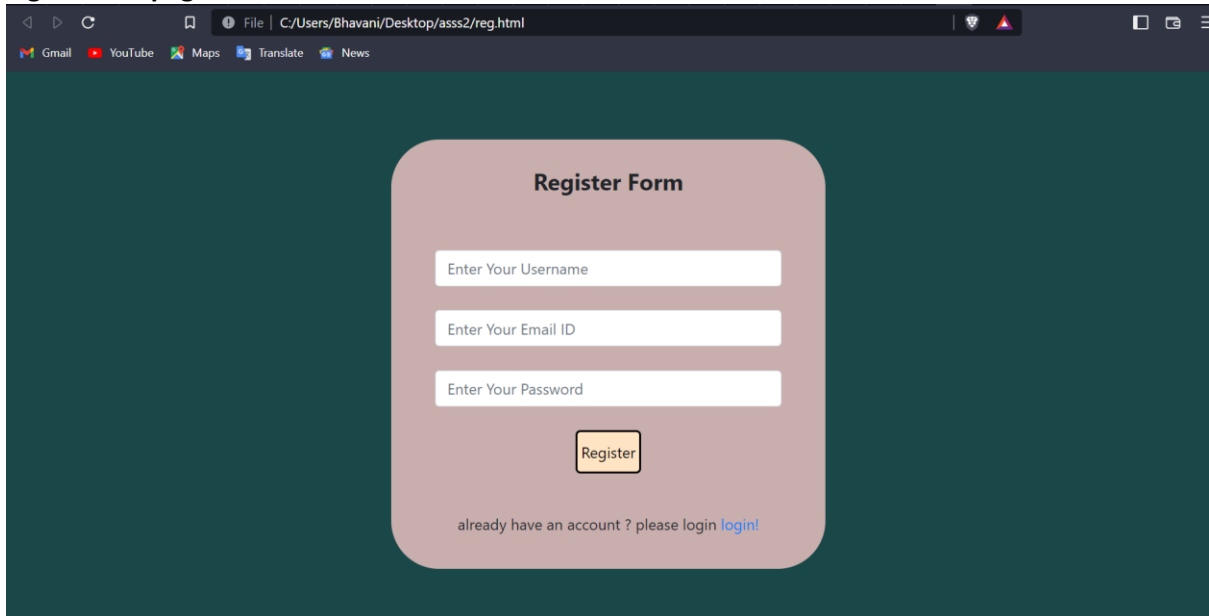
input {
  width: 80% !important;
}

div {
  display: flex;
  align-items: center;
  justify-content: center;
  flex-direction: column;
  width: 90%;
}

.form-text-vk {
  font-size: small;
  padding-bottom: 10px;
}

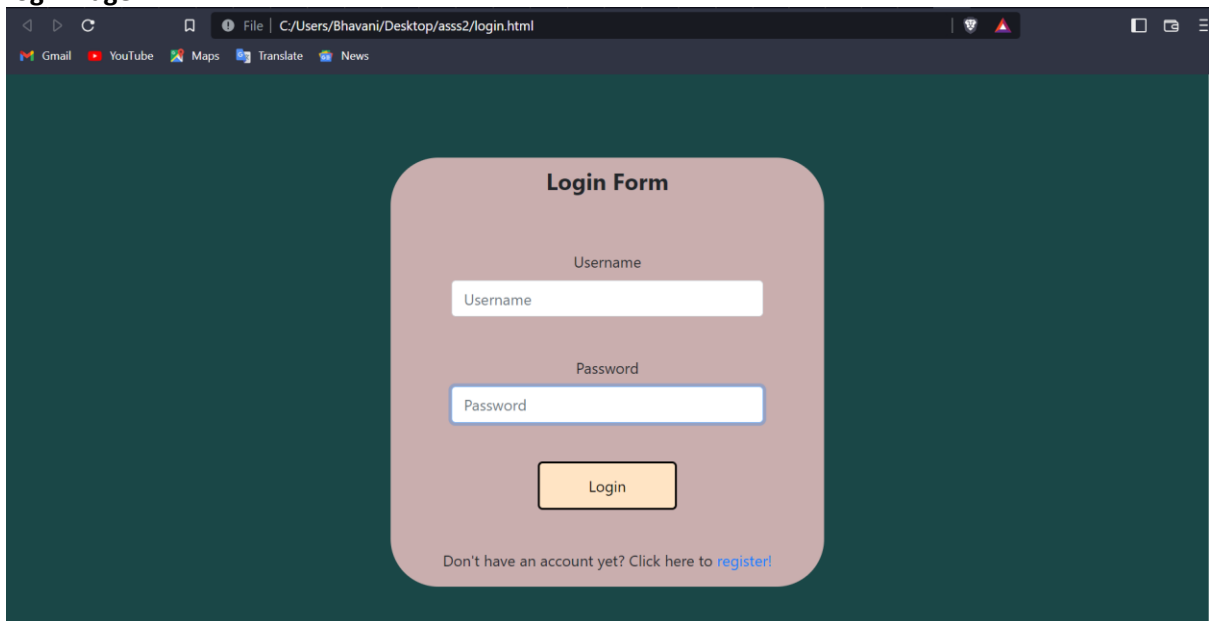
.form-text-h2 {
  font-size: x-large;
  padding-top: 10px;
}
```


Output:-
registration page:-



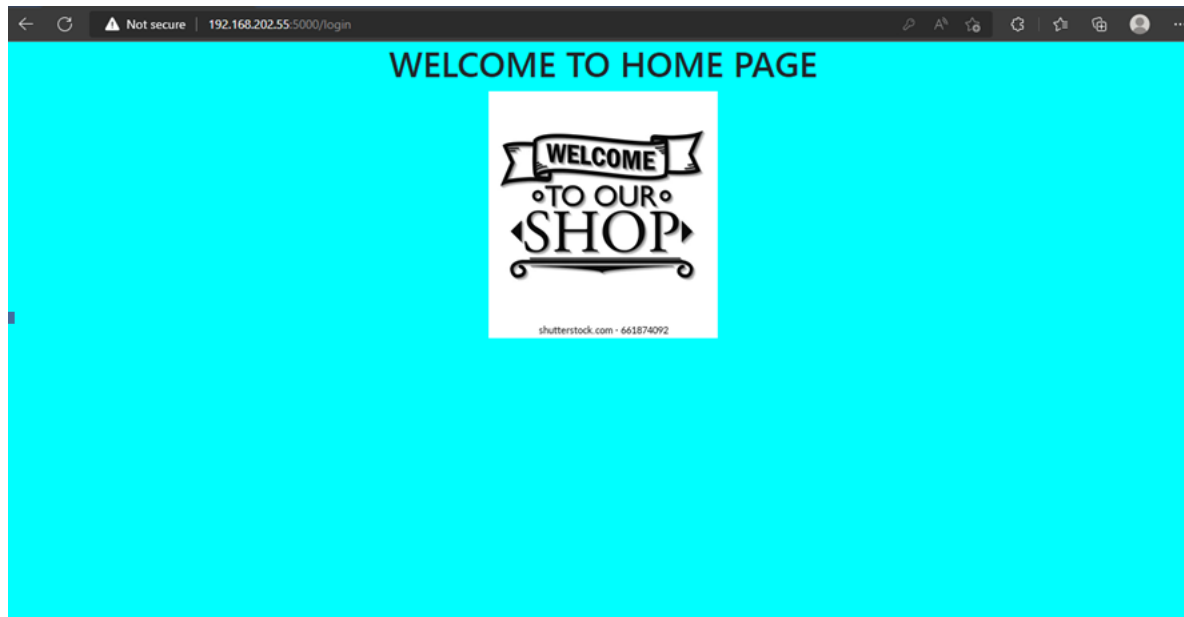
The screenshot shows a web browser window with the address bar displaying 'File | C:/Users/Bhavani/Desktop/asss2/reg.html'. The browser's toolbar includes icons for Gmail, YouTube, Maps, Translate, and News. The main content area features a dark teal background with a light pink rounded rectangle in the center. Inside this rectangle, the title 'Register Form' is centered at the top. Below the title are three white input fields with placeholder text: 'Enter Your Username', 'Enter Your Email ID', and 'Enter Your Password'. A yellow 'Register' button is positioned below the password field. At the bottom of the pink rectangle, the text 'already have an account ? please login [login!](#)' is displayed.

Login Page:-



The screenshot shows a web browser window with the address bar displaying 'File | C:/Users/Bhavani/Desktop/asss2/login.html'. The browser's toolbar includes icons for Gmail, YouTube, Maps, Translate, and News. The main content area features a dark teal background with a light pink rounded rectangle in the center. Inside this rectangle, the title 'Login Form' is centered at the top. Below the title are two white input fields with placeholder text: 'Username' and 'Password'. A yellow 'Login' button is positioned below the password field. At the bottom of the pink rectangle, the text 'Don't have an account yet? Click here to [register!](#)' is displayed.

Welcome Page:-



Data Base Table :-

A screenshot of the IBM Db2 on Cloud interface. The top navigation bar includes 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is selected, and the table 'DTP46044.USERS' is displayed. The table structure is shown with columns: USERNAME, EMAIL, and PASSWORD. The table contains one row of data. A 'Back' button is located in the top right corner of the table view. An 'Export to CSV' button is also visible.

USERNAME	EMAIL	PASSWORD
Parameshwaran	parameshvk3232@gmail.com	123432