

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 screenshot shows the IBM Db2 on Cloud console. The 'Tables' tab is selected, displaying a list of tables. The table 'USERTABLE' in schema 'DTP46044' is selected. The 'Table definition' panel on the right shows the table structure:

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

A 'View data' button is visible at the bottom of the table definition panel.

The screenshot shows the IBM Db2 on Cloud console. The 'Table definition' panel for 'DTP46044.USERTABLE' is displayed. The table structure is shown with columns: USERNAME, ROLLNUMBER, EMAIL, and PASSWORD. The table is currently empty, as indicated by the message 'There is no data here yet' and the 'Back' button.

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 editor area is titled '*Untitled - 1' and contains a SQL script:

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

Below the editor, the 'History' pane shows a table with the following data:

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

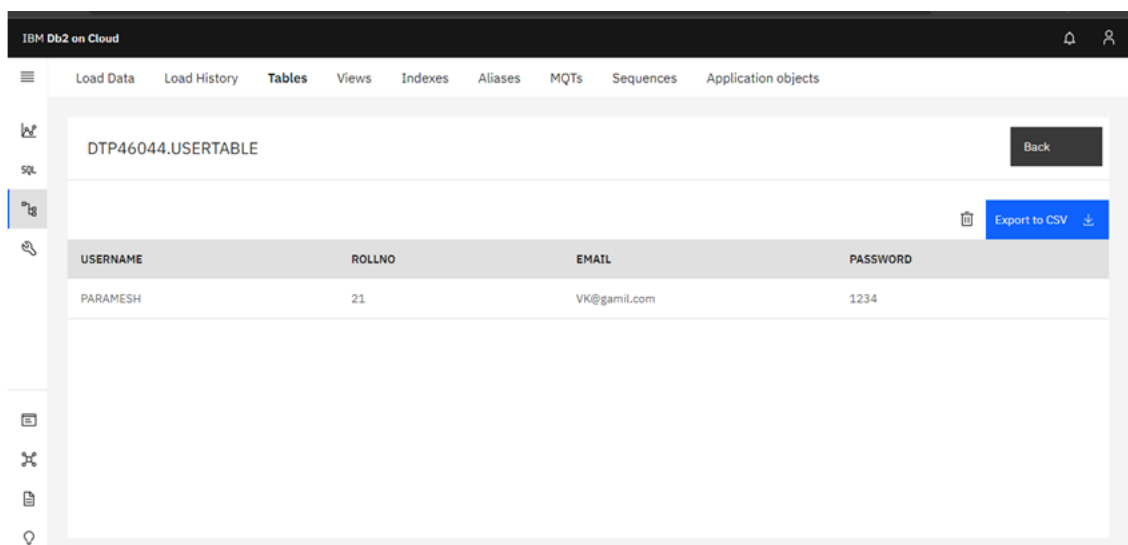
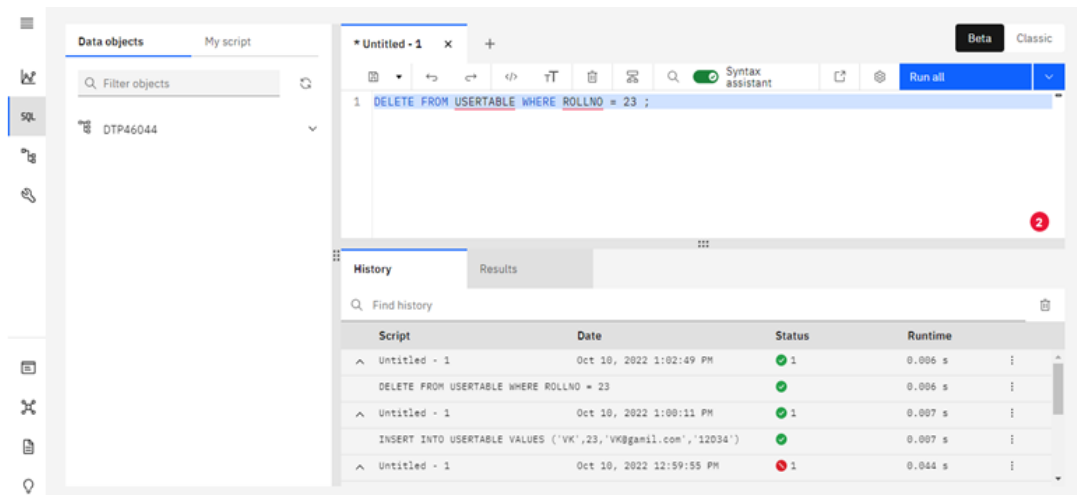
The screenshot shows the IBM Db2 on Cloud interface with the 'Tables' tab selected. The table 'DTP46044.USERTABLE' is displayed with the following data:

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

DELETE TABLE:-

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

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



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

```

<!DOCTYPEhtml>
<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 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;
}

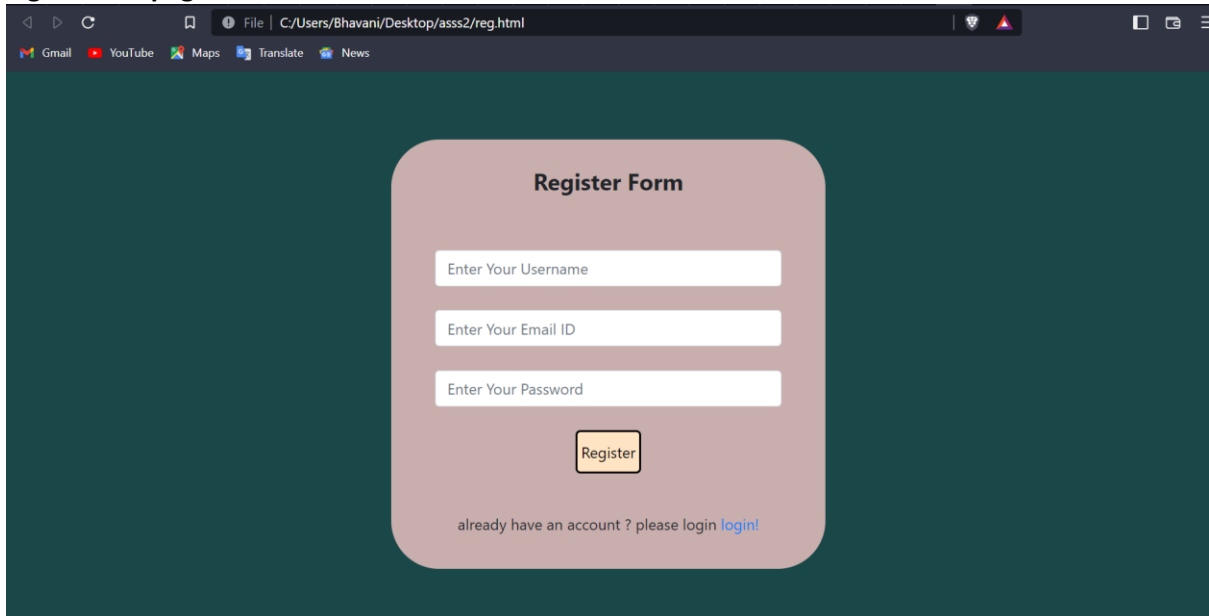
input {
  width: 80% !important;
}

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

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

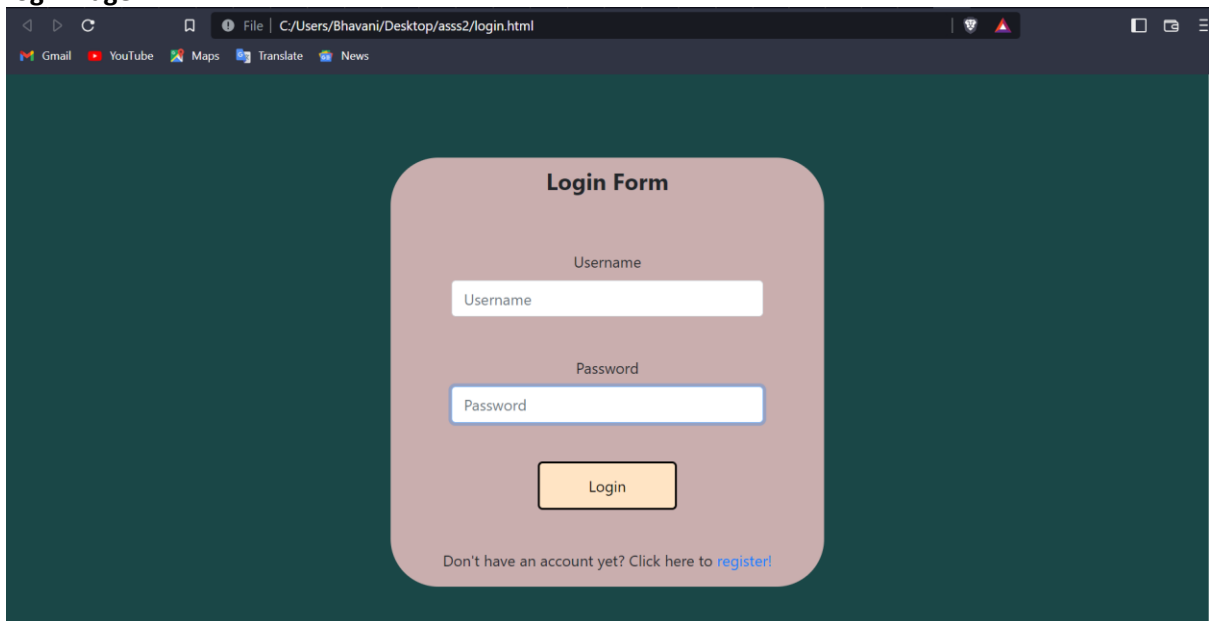
.form-text-h2 {
  font-size: x-large;
  padding-top: 10px;
}
```


Output:-
registration page:-



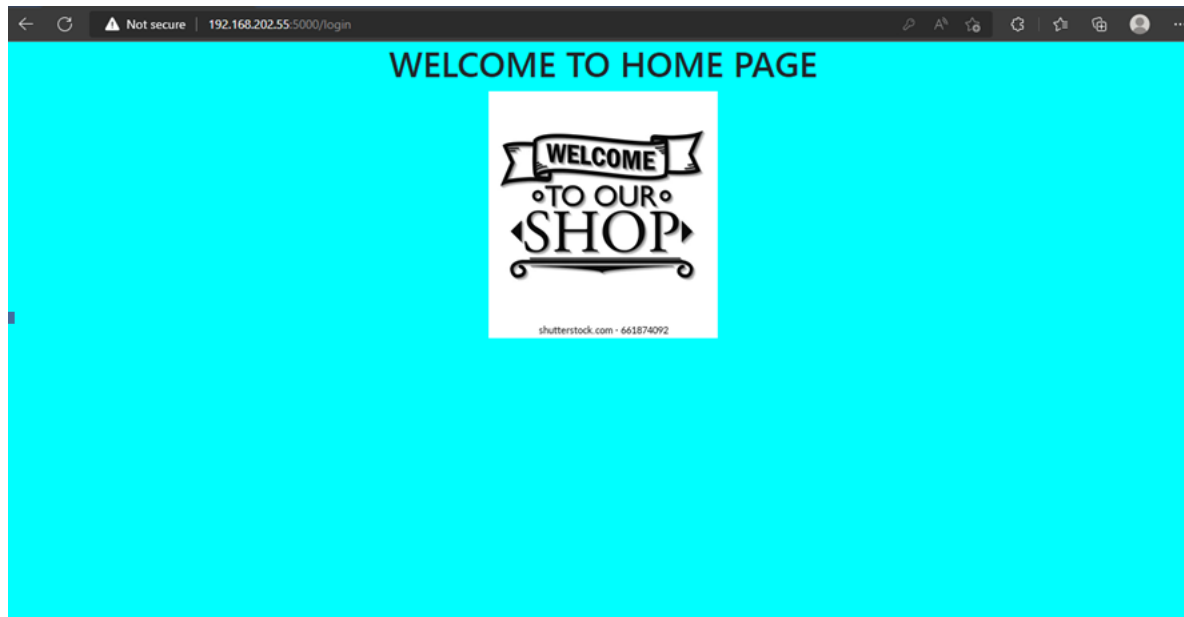
The screenshot shows a web browser window with the address bar displaying 'File | C:/Users/Bhavani/Desktop/asss2/reg.html'. The browser's taskbar includes icons for Gmail, YouTube, Maps, Translate, and News. The main content area features a dark teal background with a light pink rounded rectangle in the center. This rectangle is titled 'Register Form' in bold black text. It contains three white input fields with placeholder text: 'Enter Your Username', 'Enter Your Email ID', and 'Enter Your Password'. Below these fields is an orange 'Register' button. At the bottom of the form, there is a link that says 'already have an account ? please login [login!](#)'.

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 taskbar 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. This rectangle is titled 'Login Form' in bold black text. It contains two white input fields with placeholder text: 'Username' and 'Password'. Below these fields is an orange 'Login' button. At the bottom of the form, there is a link that says 'Don't have an account yet? Click here to [register!](#)'.

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, showing a table named 'DTP46044.USERS'. To the right of the table name are 'Back' and 'Export to CSV' buttons. The table structure is as follows:

USERNAME	EMAIL	PASSWORD
Parameshwaran	parameshvk3232@gmail.com	123432