

Assignment -2

IBM CLOUD DB2

| | |
|---------------------|-------------------|
| Assignment Date | 29 September 2022 |
| Student Name | HARIVANISRI G |
| Student Roll Number | 951919CS030 |
| Maximum Marks | 2 Marks |

Questions:

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

The screenshot displays the IBM Db2 on Cloud web interface. The 'Tables' tab is active, showing a list of tables. The 'STUDENT' table is selected, and its definition is shown on the right. The table has four columns: USERNAME (CHAR, 5, nullable), ROLLNO (INTEGER, nullable), EMAIL (VARCHAR, 32, nullable), and PASSWORD (VARCHAR, 32, nullable). A 'View data' button is located at the bottom of the table definition panel.

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

IBM Db2 on Cloud

Data objects Saved objects

Filter objects

MSC81166

SQL

*Untitled - 1

Syntax assistant

Run all

```
1 insert into stdent values('Asha',22,'cbc@gmail.com','1254');
```

History

IBM Db2 on Cloud

Data objects Saved objects

Filter objects

MSC81166

SQL

*Untitled - 1

Syntax assistant

Run all

```
1 insert into stdent values('Asha',22,'cbc@gmail.com','1254');
```

History

Find history

| Script | Date | Status | Runtime |
|-------------------------------------------------------------|------------------------|--------|---------|
| Untitled - 1 | Nov 6, 2022 9:48:45 AM | ✓ 1 | 0.010 s |
| insert into stdent values('Asha',22,'cbc@gmail.com','1254') | | ✓ | 0.010 s |

IBM Db2 on Cloud

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

MSC81166.STDENT

Back

Export to CSV

| USERNAME | ROLLNO | EMAIL | PASSWORD |
|----------|--------|---------------|----------|
| Asha | 22 | cbc@gmail.com | 1254 |

DELETE TABLE:-

IBM Db2 on Cloud

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

MSC81166.STDENT

Back

Export to CSV

| USERNAME | ROLLNO | EMAIL | PASSWORD |
|----------|--------|---------------|----------|
| Asha | 22 | cbc@gmail.com | 1254 |
| Asha | 22 | cbc@gmail.com | 1254 |
| Ashok | 23 | xyz@gmail.com | 9876 |

IBM Db2 on Cloud

Data objects Saved objects

Filter objects

MSC81166

*Untitled - 1

Syntax assistant

Run all

```
1 delete from student where Rollno =22;
```

IBM Db2 on Cloud

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

MSC81166.STUDENT

Back

Export to CSV

| USERNAME | ROLLNO | EMAIL | PASSWORD |
|----------|--------|---------------|----------|
| Ashok | 23 | xyz@gmail.com | 9876 |

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/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="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/favicon-
32x32.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/font-
awesome/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:-

Smart Fashion Login x Service Details - IBM Cloud x IBM Db2 on Cloud x IBM x +

← ↻ ⚠ Not secure | 192.168.202.55:5000/login

Login Form

Username

Harivanisri

Password

Login

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

Login Page:-

Smart Fashion register x Service Details - IBM Cloud x IBM Db2 on Cloud x IBM x +

← ↻ ⚠ Not secure | 192.168.202.55:5000

Register Form

Harivanisri

sri@gmail.com

Enter Your Password

Register

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