

Assignment -2

IBM CLOUD DB2

| | |
|---------------------|--------------|
| Student Name | SNEKA.G |
| Student Roll Number | 613019104076 |
| 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 top navigation bar includes tabs for 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is active, showing a search bar and a list of tables. A table named 'STUDENTS' is listed under the 'FXW61107' schema. The 'Table definition' panel on the right shows the structure of the 'STUDENTS' table:

| Name | Data type | Nullable | Length | Scale |
|-------------|-----------|----------|--------|-------|
| USERNAME | CHAR | Y | 5 | 0 |
| ROLL NUMBER | INTEGER | Y | | 0 |
| EMAIL ID | VARCHAR | Y | 32 | 0 |
| PASSWOED | VARCHAR | Y | 32 | 0 |

The interface also shows a 'View data' button and a status bar at the bottom indicating the system is 'Partly sunny' with a temperature of 32°C.

2. Perform UPDATE,DELETE Queries with user table.

UPDATE TABLE:-

The screenshot shows the IBM Db2 on Cloud web interface. On the left, the 'Data objects' panel shows a database named 'FXW61107'. The main area displays a SQL script in a text editor with the following content:

```
1 INSERT INTO STUDENTS values ('sneka','76','snekagovindan@gmail.com','sneka')
```

Below the script editor, the 'History' tab is active, showing a table of executed scripts:

| Script | Date | Status | Runtime |
|---|-------------------------|--------|---------|
| Untitled - 1 | Oct 19, 2022 3:02:47 PM | ✓ 1 | 0.006 s |
| INSERT INTO STUDENTS values ('sneka','76','snekagovindan@gmail... | | ✓ | 0.006 s |

The screenshot shows the IBM Db2 on Cloud web interface displaying the contents of the 'FXW61107.STUDENTS' table. The table has the following structure and data:

| USERNAME | ROLL NUMBER | EMAIL ID | PASSWOED |
|----------|-------------|-------------------------|----------|
| sneka | 76 | snekagovindan@gmail.com | sneka |

DELETE TABLE:-

IBM Db2 on Cloud

SQL

FXW61107

My script

```
1 INSERT INTO STUDENTS values ('sneka','76','snekagovindan@gmail.com','sneka');
2 INSERT INTO STUDENTS values ('krish','77','krishnaveni@gmail.com','krish');
3 DELETE FROM STUDENTS WHERE USERNAME = 'sneka'
```

History

| Script | Date | Status | Runtime |
|---|-------------------------|--------|---------|
| Untitled - 1 | Oct 19, 2022 3:09:15 PM | 3 | 0.010 s |
| INSERT INTO STUDENTS values ('sneka','76','snekagovindan@gmail... | | | 0.003 s |
| INSERT INTO STUDENTS values ('krish','77','krishnaveni@gmail... | | | 0.005 s |
| DELETE FROM STUDENTS WHERE USERNAME = 'sneka' | | | 0.002 s |
| Untitled - 1 | Oct 19, 2022 3:08:31 PM | 2 1 | 0.015 s |

IBM Db2 on Cloud

Tables

FXW61107.STUDENTS

Export to CSV

| USERNAME | ROLL NUMBER | EMAIL ID | PASSWOED |
|----------|-------------|-----------------------|----------|
| krish | 77 | krishnaveni@gmail.com | krish |

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=Db2New;HOSTNAME=19af6446-6171-4641-8aba-
9dcff8e1b6ff.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=30699;USERNAM
E=kgb92696;PASSWORD=3IlWyGYU3bMIvwnX;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="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="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 {
    color: #444444;
    background: linear-gradient(-45deg, #EE7752, #E73C7E, #23A6D5, #23D5AB);
    background-size: 400% 400%;
    position: relative;
    display: flex;
    flex-direction: column;

```



```

    align-items: center;
    justify-content: center;
    animation: anime 10s ease-in-out infinite;
}
@keyframes anime{
  0%{
    background-position: 0 50%;
  }
  50%{
    background-position: 100% 50%;
  }
  100%{
    background-position: 0 50%;
  }
}

```

```

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 Smart Fashion register x Home page x Smart Fashion register x

File | C:/Users/Hi/Desktop/Assingment%20-%202/templates/register.html

Register Form

{{ msg }}

Sneka

snekagovindan@gamil.com

.....

Register

already have an account ? please login login!

32°C Partly sunny 03:30 19-10-2022

LOGIN PAGE:-

IBM x IBM-P x IBM-P x IBM-P x Proble x (1) Wi x Downl x Assign x Service x IBM D x Smart x

File | C:/Users/Hi/Desktop/Assingment%20-%202/templates/login.html

Gmail YouTube Maps New Tab

Login Form

Username

Sneka

Password

Login

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

32°C Partly sunny

ENG IN 03:16 19-10-2022

WELCOME PAGE:-

