

ASSIGNMENT- 2

IBM CLOUD DB2

Date	29 September 2022
Student Name	FARJANA BANU S
Student Roll Number	613019104023
Maximum Marks	2 Marks

Questions:

- 1) Create the 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 'Load Data', 'Load History', 'Tables', 'Views', 'Indexes', 'Aliases', 'MQTs', 'Sequences', and 'Application objects'. The 'Tables' tab is active, showing a search bar and a 'New table' button. Below the search bar, a table lists the existing tables:

Name	Schema	Properties
STUDENTS	GHP44362	...

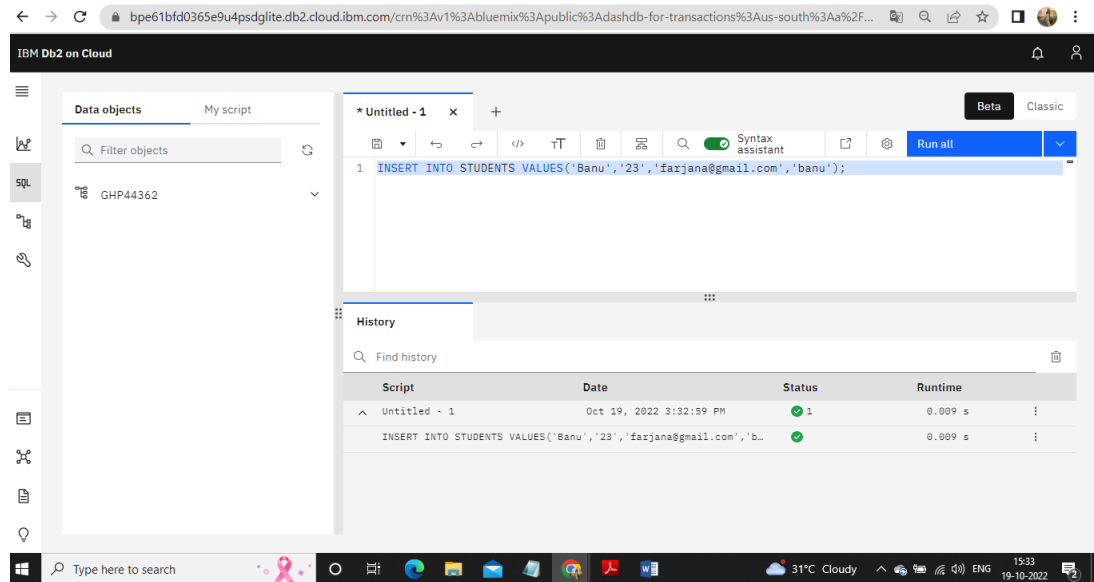
The 'Table definition' panel for the 'STUDENTS' table is open, showing the following columns:

Name	Data type	Nullable	Length	Scale
USERNAME	CHAR	Y	5	0
ROLLNO	INTEGER	Y		0
EMAIL	VARCHAR	Y	32	0
PASSWORD	VARCHAR	Y	32	0

A 'View data' button is located at the bottom of the table definition panel. The bottom of the screenshot shows the Windows taskbar with the date and time as 15:30 on 19-10-2022.

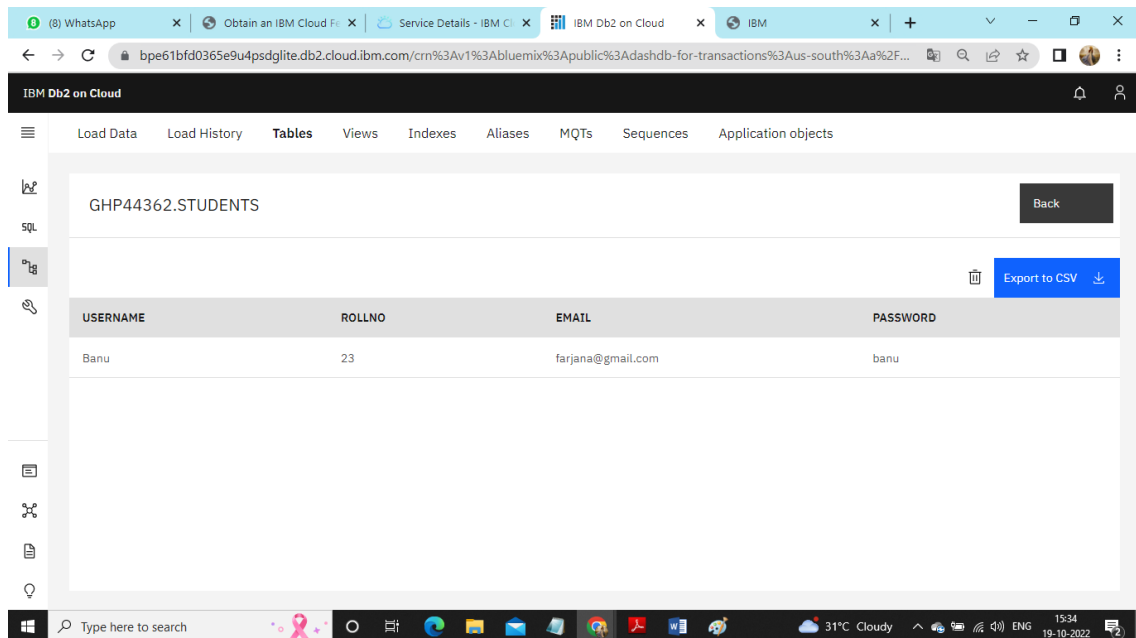
2) Perform UPDATE, DELETE queries with user table.

UPDATE TABLE:



The screenshot shows the IBM Db2 on Cloud console interface. On the left, the 'Data objects' tab is active, displaying a table named 'GHP44362'. The main area shows a script editor with a single line of SQL: `INSERT INTO STUDENTS VALUES('Banu','23','farjana@gmail.com','banu');`. The 'Run all' button is visible. Below the script editor, the 'History' tab is active, showing a table with columns: Script, Date, Status, and Runtime. The history entry shows the script was executed successfully on Oct 19, 2022 at 3:32:59 PM, with a status of '1' and a runtime of 0.009 s.

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 3:32:59 PM	1	0.009 s
INSERT INTO STUDENTS VALUES('Banu','23','farjana@gmail.com','b...			0.009 s



The screenshot shows the IBM Db2 on Cloud console interface, specifically the 'Tables' tab. The table 'GHP44362.STUDENTS' is selected. The table structure is displayed with columns: USERNAME, ROLLNO, EMAIL, and PASSWORD. The data row shows: Banu, 23, farjana@gmail.com, banu. An 'Export to CSV' button is visible. The 'History' tab is also visible, showing the same script execution history as the previous screenshot.

USERNAME	ROLLNO	EMAIL	PASSWORD
Banu	23	farjana@gmail.com	banu

DELETE TABLE:

IBM Db2 on Cloud

Filter objects

GHP44362

SQL

Untitled - 1

Syntax assistant

Run all

```
1 INSERT INTO STUDENTS VALUES('Banu','23','farjana@gmail.com','banu');
2 INSERT INTO STUDENTS VALUES('Ramya','30','ramya@gmail.com','ramya');
3 DELETE FROM STUDENTS WHERE USERNAME='Banu';
```

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Oct 19, 2022 3:37:05 PM	3	0.032 s
INSERT INTO STUDENTS VALUES('Banu','23','farjana@gmail.com',...			0.016 s
INSERT INTO STUDENTS VALUES('Ramya','30','ramya@gmail.com',...			0.008 s
DELETE FROM STUDENTS WHERE USERNAME='Banu'			0.008 s
Untitled - 1	Oct 19, 2022 3:32:59 PM	1	0.009 s

IBM Db2 on Cloud

Load Data

Load History

Tables

Views

Indexes

Aliases

MQTs

Sequences

Application objects

GHP44362.STUDENTS

Back

Export to CSV

USERNAME	ROLLNO	EMAIL	PASSWORD
Ramya	30	ramya@gmail.com	ramya

3) CONNECT PYTHON CODE TO DB2.

NOTE: Question 4 contains Question 3 answer

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>Nutrition Assistant 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>Nutrition Assistant 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="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>

    <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 {
```

```
padding-bottom: 10px;
}

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

OUTPUT:

REGISTRATION PAGE:

Nutrition Assistant register

File | C:/Users/KING/OneDrive/Desktop/F%20drive/Reg%20form/Register.html

Register Form

Farjanabanu

farjanabanu88@gmail.com

Register

Already have an account ? Please login [login!](#)

Type here to search

32°C Mostly cloudy

ENG 12:52 19-10-2022

LOGIN PAGE:

Nutrition Assistant register

File | C:/Users/KING/OneDrive/Desktop/F%20drive/Reg%20form/Register.html

Register Form

Farjanabanu

farjanabanu88@gmail.com

Register

Already have an account ? Please login login!

Type here to search

32°C Mostly cloudy

12:52
19-10-2022

WELCOME PAGE:

