**Assignment -2**

Python Programming

| Assignment Date | 19 September 2022 |
|---|---|
| Student Name | A.Karuppasamy |
| Student Roll Number | 951919CS039 |
| Maximum Marks | 2 Marks |

**Question-1:**

**1. Create User table with user with email, username, roll number, passwo**rd.

CREATE TABLE patient (

        username varchar(20),

        email varchar(30),

        rollnumber varchar(10),

        passwrd varchar(15)

);
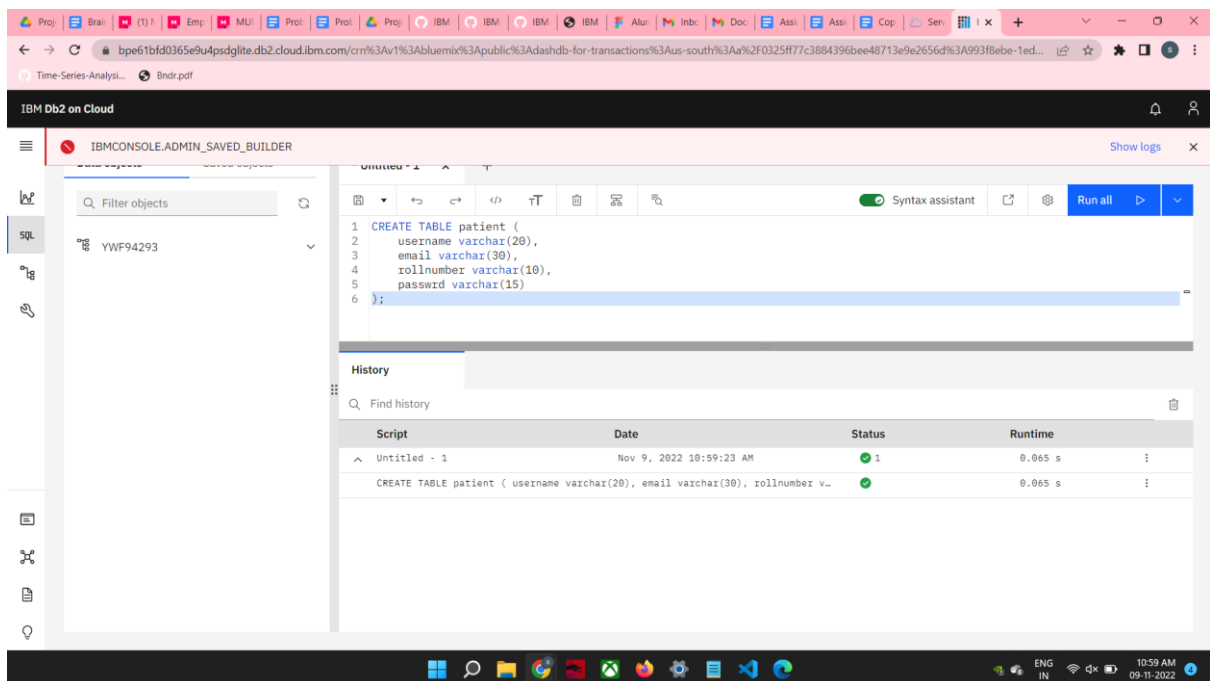


**Question-2:**

**2. Perform UPDATE,DELETE Queries with user table**

```sql
ALTER TABLE
 PATIENT
 ADD AGE INT;


INSERT
 INTO PATIENT
 VALUES(
        'surya',
        'surya12@gmail',
        '0987',
        'dfefsdde',
        '21'
);


INSERT
 INTO PATIENT
 VALUES(
        'Aswin',
        'aswin@gmail',
        '1234',
        'adqwagga',
        '22'
);
```

## Note: question 3 and 4 result having the same answer

**Question-3:**

**3. Connect python code to db2.**

```python
from flask import Flask, render_template, request, redirect, url_for, session

import ibm_db

import re


app = Flask(__name__)

app.secret_key = 'secret'

conn = ibm_db.connect(

    "DATABASE=bludb;"

"HOSTNAME=1bbf73c5-d84a-4bb0-85b9-
ab1a4348f4a4.c3n41cmd0nqnrk39u98g.databases.appdomain.cloud;"

 "PORT=32286;SECURITY=SSL;"

"SSLServerCertificate=DigiCertGlobalRootCA.crt;"

 "PROTOCOL=TCPIP;"

"UID=sjk80749;"

 "PWD=0PKqqbhjqy9m090T", "", "")

print("Connected to database: ", conn)
```

```python
print("Connection successful.")


@app.route('/', methods=['POST', 'GET'])
def register():
    msg = ''
    if request.method == 'POST':
        username = request.form['username']
        password = request.form['password']
        email = request.form['email']
        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)
        print(username, password, email)
        if account:
            msg = 'Account already exists !'
        elif not re.match(r'[^@]+@[^@]+\.[^@]+', email):
            msg = 'Invalid email address !'
            print(msg)
        elif not re.match(r'[A-Za-z0-9]+', username):
            msg = 'Username must contain only characters and numbers !'
            print(msg)

        elif not username or not password or not email:
            msg = 'Please fill out the form !'
            print(msg)

        else:
```

```python
            insert_sql = 'INSERT INTO users(username, email, password) 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)

            print("User created successfully")

            msg = 'You have successfully registered !'

            return render_template('login.html', msg=msg)


    elif request.method == 'POST':

        msg = 'Please fill out the form !'

    return render_template('register.html', msg=msg)




@app.route('/login', methods=['POST', 'GET'])

def login():

    msg = ''

    if request.method == 'GET':

        return render_template('login.html', msg=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)

        print(username, password)
```

```python
        if account:

            session['loggedin'] = True

            session['id'] = account['USERNAME']

            session['username'] = account['USERNAME']

            msg = 'Logged in successfully !'

            return render_template('home.html', msg=msg, username=username)  # Redirect to home page

        else:

            msg = 'Incorrect username / password !'

    return render_template('login.html', msg=msg)




@app.route('/logout')

def logout():

    session.pop('loggedin', None)

    session.pop('id', None)

    session.pop('username', None)

    return redirect(url_for('login'))




if __name__ == '__main__':

    app.run(host='0.0.0.0')
```

**Question-4:**

**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**

**home.html**
```html
<!DOCTYPE html>
<html>
  <head>
    <title>Home</title>
  </head>
```

```html
    <body>
        <h1>Home Page</h1>
        <h2>Welcome {{username}}</h2>
        <p>{{msg}}</p>
        <a href="/logout">Logout</a>
    </body>

</html>
```

**login.html**
```html
<!DOCTYPE html>
<html>
    <head>
        <title>Login</title>
    </head>
    <body>
    <h1>LOGIN</h1>
    <p>{{msg}}</p>
    <form action="/login" method="POST">
        <input type="text" name="username" placeholder="Username">
        <input type="password" name="password" placeholder="Password">
        <input type="submit" value="Login">
    </form>
    </body>
</html>
```

**registration.html**
```html
<!DOCTYPE html>
<html>
    <head>
        <title>Register</title>
    </head>
    <body>
    <h1>Register</h1>
    <p>{{msg}}</p>
    <form action="/" method="POST">
        <input type="text" name="username" placeholder="Username">
        <input type="text" name="email" placeholder="Email">
        <input type="password" name="password" placeholder="Password">
        <input type="submit" value="Register">
    </form>
    </body>
</html>
```

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

YWF94293.USERS                                                                                    Back

🗑   Export to CSV ⤓

| USERNAME | PASSWORD | EMAIL |
|----------|----------|-------|
| Surya | 1234 | suryatj1234@gmail.com |