Assignment -2

Python DB2

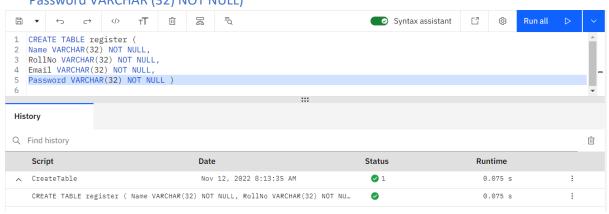
Student Name	Ashwin Balaji PL
Student Roll Number	1901023
Maximum Marks	2 Marks

Question-1:

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

Solution:

CREATE TABLE register (
Name VARCHAR (32) NOT NULL,
RollNo VARCHAR (32) NOT NULL,
Email VARCHAR (32) NOT NULL,
Password VARCHAR (32) NOT NULL)

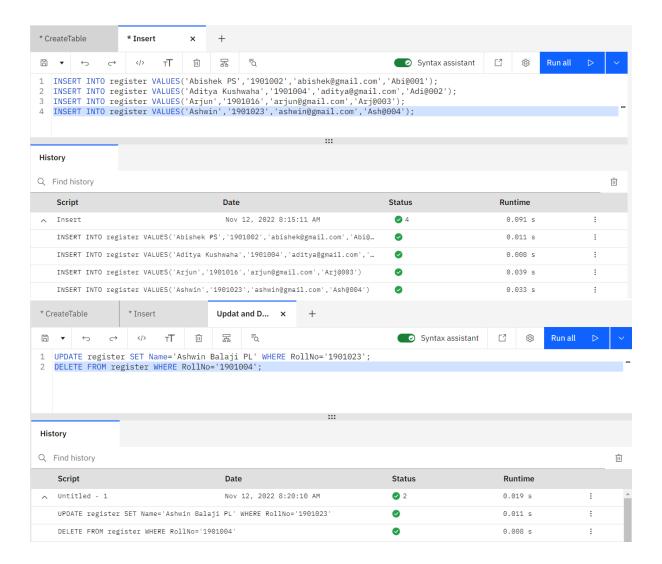


Question-2:

Perform UPDATE, DELETE Queries with user table.

Solution:

INSERT INTO register VALUES ('Abishek PS','1901002','abishek@gmail.com','Abi@001'); INSERT INTO register VALUES ('Aditya Kushwaha','1901004','aditya@gmail.com','Adi@002'); INSERT INTO register VALUES ('Arjun','1901016','arjun@gmail.com','Arj@003'); INSERT INTO register VALUES ('Ashwin','1901023','ashwin@gmail.com','Ash@004'); UPDATE register SET Name='Ashwin Balaji PL' WHERE RollNo='1901023'; DELETE FROM register WHERE RollNo='1901004';



Question-3:

Connect python code to db2.

Solution:

```
import ibm db
                                           dsn_hostname = "HOSTNAME"
                                           dsn uid = "UID"
                                           dsn_pwd = "PASSWORD"
                                           dsn_driver = "{IBM DB2 ODBC DRIVER}"
                                           dsn database = "DATABASE"
                                           dsn_port = "PORTNUMBER"
                                           dsn protocol = "TCPIP"
                                           dsn_security = "SSL"
"DRIVER={0};""DATABASE={1};""HOSTNAME={2};""PORT={3};""PROTOCOL={4};""UID={5};""PWD={6};
""SECURITY=\{7\};"). format (dsn\_driver, dsn\_database, dsn\_hostname, dsn\_port, dsn\_protocol, dsn\_uid, dsn\_database, 
sn_pwd,dsn_security,)
print(dsn)
try:
```

```
conn = ibm_db.connect(dsn, "", "")
    print ("Connected to database: ", dsn_database, "as user: ", dsn_uid, "on host: ",
dsn_hostname)
except:
    print ("Unable to connect: ", ibm_db.conn_errormsg() )
```

PS C:\Users\Abby\Desktop\NaalayaThiran\Assignment_II> & C:\Users\Abby\AppData\Local\Programs\Python\Python310\python.exe c:\Users\Abby\Desktop\NaalayaThiran\Assignment_II\db2.py

DRIVER={IBM DB2 ODBC DRIVER};DATABASE=bludb;HOSTNAME=55fbc997-9266-4331-afd3-888b05e734c0.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=31929;PROT
OCOL=TCPIP;UID=gtm67329;PWD=gPvWP7KVrh6tNBWF;SECURITY=SSL;
Connected to database: bludb as user: gtm67329 on host: 55fbc997-9266-4331-afd3-888b05e734c0.bs2io90l08kqb1od8lcg.databases.appdomain.cloud
PS C:\Users\Abby\Desktop\NaalayaThiran\Assignment_II>

Question-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.

Solution:

```
Main.py
import ibm db
from flask import Flask, render template, redirect, request, session
app = Flask(__name__)
app.secret_key='a'
dsn_hostname = "*****"
dsn_ uid = "*****"
dsn_pwd = "*****"
dsn_driver = "{IBM DB2 ODBC DRIVER}"
dsn database = "*****"
dsn port = "*****"
dsn protocol = "TCPIP"
dsn_security = "SSL"
dsn =
("DRIVER={0}:""DATABASE={1}:""HOSTNAME={2}:""PROTOCOL={4}:""UID={5}:""
PWD={6};""SECURITY={7};").format(dsn_driver,dsn_database,dsn_hostname,dsn_port,dsn_p
rotocol,dsn_uid,dsn_pwd,dsn_security,)
try:
  conn = ibm db.connect(dsn, "", "")
  print ("Connected to database: ", dsn database, "as user: ", dsn uid, "on host: ",
dsn hostname)
  @app.route("/",methods=['GET','POST'])
  @app.route("/register",methods=['GET','POST'])
  def register():
    msg = None
    if request.method == 'POST':
      name=request.form['name']
      rollno=request.form['rollno']
```

```
email=request.form['email']
    password=request.form['password']
    select_sql = "Select * from User where email=?"
    stmt = ibm db.prepare(conn,select sql)
    ibm db.bind param(stmt,1,email)
    ibm_db.execute(stmt)
    user = ibm_db.fetch_assoc(stmt)
    if user:
      msg = "User with this email already exists!"
      return render_template("register.html",msg = msg)
      insert_sql = "Insert into User Values (?,?,?,?)"
      stmt = ibm_db.prepare(conn,insert_sql)
      ibm db.bind param(stmt,1,name)
      ibm_db.bind_param(stmt,2,rollno)
      ibm db.bind param(stmt,3,email)
      ibm db.bind param(stmt,4,password)
      ibm_db.execute(stmt)
      return redirect("/login")
 return render_template("register.html")
@app.route("/login",methods=['GET','POST'])
def login():
 msg = None
 if request.method == 'POST':
    email=request.form['email']
    password=request.form['password']
    select sql = "Select * from User where email=?"
    stmt = ibm_db.prepare(conn,select_sql)
    ibm_db.bind_param(stmt,1,email)
    ibm db.execute(stmt)
    user = ibm_db.fetch_assoc(stmt)
    if not user:
      msg = "User with this email does not exist!"
      return render_template("login.html",msg = msg)
    elif user['PASSWORD'] != password:
      msg = "Incorrect Passowrd!"
      return render_template("login.html",msg = msg)
    else:
      session['loggedin'] = True
      session['id'] = user['EMAIL']
      session['username'] = user['NAME']
      return redirect('/welcome')
 return render_template("login.html")
@app.route("/logout")
```

```
def logout():
           session['loggedin'] = False
           session['id'] = ""
           session['username'] = ""
           return render template("login.html",msg="Logged out successfully!")
         @app.route("/welcome")
         def welcome():
           return render_template("welcome.html",)
       except:
         print ("Unable to connect: ", ibm db.conn errormsg() )
       if __name__ == '__main__':
         app.run(debug=True)
Login.html
       <!DOCTYPE html>
       <html lang="en">
       <head>
         <meta charset="UTF-8">
         <meta name="viewport" content="width=device-width, initial-scale=1.0">
         <link rel="stylesheet" href="{{url_for('static', filename='css/style.css')}}">
         <title>Login Form</title>
       </head>
       <body>
         <div class="center">
           <h1>Login Form</h1>
           {% if msg %}
              <span>{{msg}}</span>
           {% endif %}
           <form action="/login" method="POST">
             <div class="inputbox">
                <label for="email">Email</label>
                <input type="text" name="email" required>
             </div>
             <div class="inputbox">
                <label for="password">Password:</label>
                <input type="password" name="password" required>
             </div>
              <button type="submit">Submit</button>
             <button type="reset">Cancel</button>
           </form>
            <span>Don't have an account? <a href="/register">Sign Up</a></span>
         </div>
       </body>
       </html>
```

```
Register.html
```

```
<!DOCTYPE html>
       <html lang="en">
       <head>
         <meta charset="UTF-8">
         <meta name="viewport" content="width=device-width, initial-scale=1.0">
         <link rel="stylesheet" href="{{url_for('static', filename='css/style.css')}}">
         <title>Registration Form</title>
       </head>
       <body>
         <div class="center">
           <h1>SignIn Form</h1>
           {% if msg %}
             <span>{{msg}}</span>
           {% endif %}
         <form action="/register" method="POST">
             <div class="inputbox">
                <label for="email">Name</label>
                <input type="text" name="name" required>
             </div>
             <div class="inputbox">
                <label for="rollno">Roll No</label>
                <input type="text" name="rollno" required>
             </div>
             <div class="inputbox">
                <label for="email">Email</label>
                <input type="email" name="email" required>
             </div>
             <div class="inputbox">
                <label for="password">Password</label>
                <input type="password" name="password" required>
              </div>
             <button type="submit">Submit</button>
             <button type="reset">Cancel</button>
           </form>
           <span>Already have an account? <a href="/login">Login</a></span>
         </div>
       </body>
       </html>
Welcome.html
       <!DOCTYPE html>
       <html>
         <head>
           <meta charset="UTF-8">
           <meta name="viewport" content="width=device-width, initial-scale=1.0">
           <title>Welcome Page</title>
         </head>
```

```
<body>
    <h1>Welcome {{session['username']}}!</h1>
    <br>
    <a href="/logout">Logout</a>
    </body>
</html>
```

REGISTRATION FORM



DB

NAME	ROLLNO	EMAIL	PASSWORD
Abishek PS	1901002	abishek@gmail.com	Abi@001
Abishek PS	19010022	abishek292001@gmail.com	Password
Arjun	1901016	arjun@gmail.com	Arj@003
Ashwin Balaji PL	1901023	ashwin@gmail.com	Ash@004

LOGIN



Welcome Ashwin Balaji

Logout

INVALID USER DETAILS

Login Form	Login Form
User with this email does not exist! Email	Incorrect Passowrd! Email
Password:	Password:
Submit Cancel Don't have an account? <u>Sign Up</u>	Submit Cancel **Don't have an account? <u>Sign Up</u>