

ASSIGNMENT - 2

1, 2: - Create user table with EMAIL, USERNAME ,ROLL_NO, PASSWORD and perform insert ,update and delete.

QUERY:

```
create table user1(username varchar(255),email varchar(255), roll_no varchar(255),password varchar(255));
```

```
insert into user1
```

```
values('Raguram','raguram@gmail.com','76','sffgh@01'),('Madav','madavan@gmail.com','56','Zxfm@02'),('Sridhar','sridhar@gmail.com','87','Qwrty@07'),('Monishkumar','monishkumar@gmail.com','59','monishkumar@gmail.com');
```

```
select * from user1;
```

```
update user1 set email='raguram030@gmail.com' where roll_no='76';
```

```
insert into user1 values('Madavan','madavan123@gmail.com','55','Omfs@025');
```

```
delete user1 where roll_no='56';
```

```
select * from user1;
```

The screenshot displays the IBM Db2 on Cloud web interface. On the left, the 'Data objects' tab is active, showing a database named 'TBB62086'. The main area is titled '*Untitled - 1' and contains a SQL script with the following lines:

```
1 create table user1(username varchar(255),email varchar(255), roll_no varchar(255),password varchar(255));
2 insert into user1 values('Raguram','raguram@gmail.com','76','sffgh@01'),('Madav','madavan@gmail.com',
3 select * from user1;
4 update user1 set email='raguram030@gmail.com' where roll_no='76';
5 insert into user1 values('Madavan','madavan123@gmail.com','55','Omfs@025');
6 delete user1 where roll_no='56';
7 select * from user1;
8
```

Below the script editor, the 'History' tab is selected, showing a table of executed queries:

Script	Date	Status	Runtime
Untitled - 1	Oct 18, 2022 12:10:11 PM	6 1	0.058 s
create table user1(username varchar(255),email varchar(255),			0.021 s
insert into user1 values('Raguram','raguram@gmail.com','76','			0.008 s
select * from user1			0.006 s
update user1 set email='raguram030@gmail.com' where roll_no='			0.006 s
insert into user1 values('Madavan','madavan123@gmail.com','55			0.007 s

The bottom of the screen shows a Windows taskbar with various application icons and a system clock indicating 12:12 PM on 18-Oct-22.

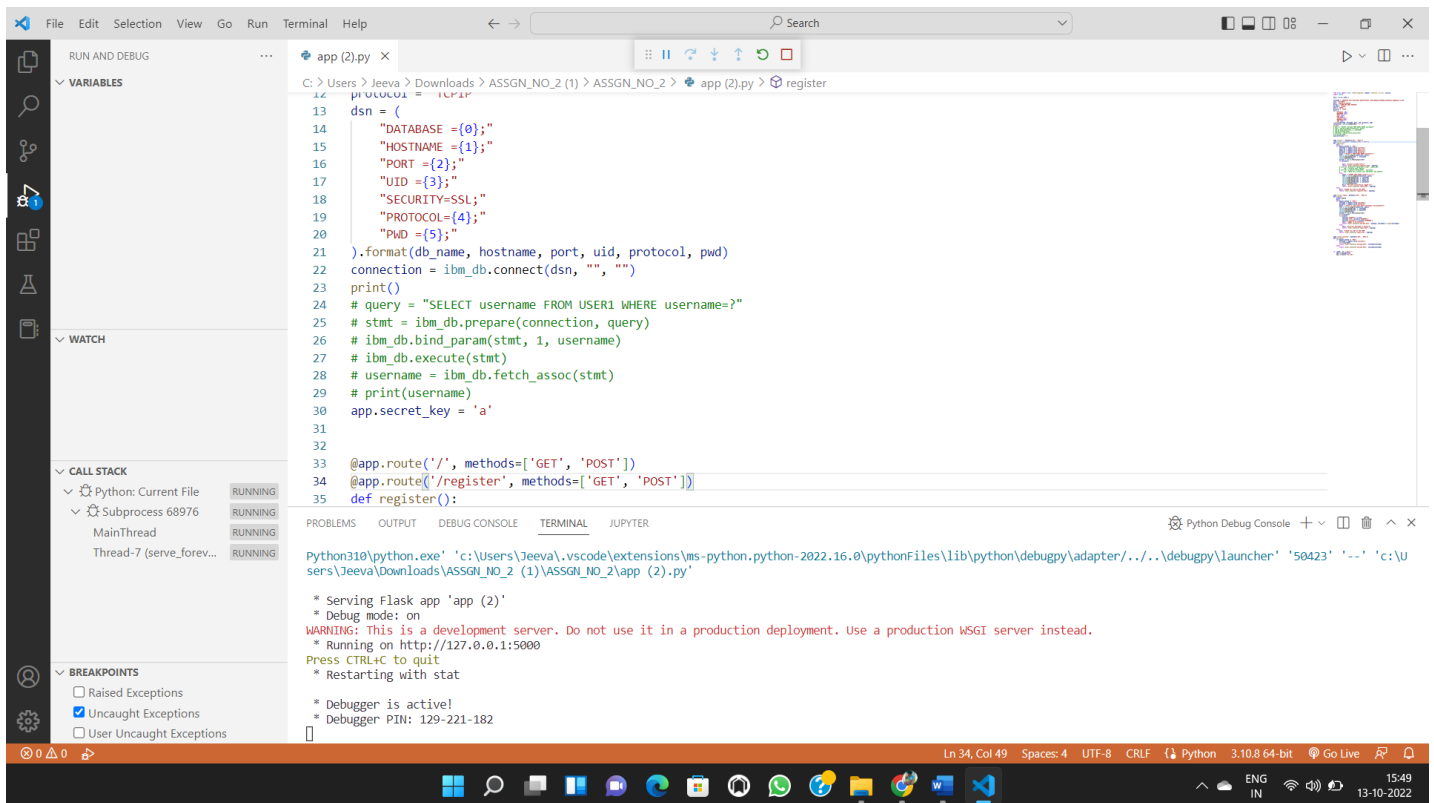
3. Connect python to db2

```
from flask import Flask, render_template, request, redirect, url_for, session
import ibm_db
import db
import db2
import re

hostname = 'fbd88901-ebdb-4a4f-a32e-9822b9fb237b.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud'
uid = 'tbb62086'
pwd = 'hZEDhhSNJxQV86h'
driver = "{IBM DB2 ODBC DRIVER}"
db_name = 'Bludb'
port = '32731'
protocol = 'TCPIP'
dsn = (
    "DATABASE ={0};"
    "HOSTNAME ={1};"
    "PORT ={2};"
    "UID ={3};"
    "SECURITY=SSL;"
    "PROTOCOL={4};"
    "PWD ={5};"
).format(db_name, hostname, port, uid, protocol, pwd)
connection = ibm_db.connect(dsn, "", "")
print(dsn)
try:

    print("Connecting to db2....")
    db2 = ibm_db.connect(dsn, "", "")
    print()
    print("Connected to database")
    print("Connection Successful!!!")

except Exception as exception:
    print("unable to connect ", exception)
```



4) ACCESS LOGIN WITH CONNTING TO DATABASE

```

from flask import Flask, render_template, request, redirect, url_for, session
import ibm_db

app = Flask(__name__)

hostname = 'fbd88901-ebdb-4a4f-a32e-9822b9fb237b.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud'
uid = 'tbb62086'
pwd = 'hZEDhhSNJxOQV86h'
driver = "{IBM DB2 ODBC DRIVER}"
db_name = 'B1udb'
port = '32731'
protocol = 'TCPIP'
dsn = (
    "DATABASE={0};"
    "HOSTNAME={1};"
    "PORT={2};"
    "UID={3};"
    "SECURITY=SSL;"
    "PROTOCOL={4};"
    "PWD={5};"
).format(db_name, hostname, port, uid, protocol, pwd)
connection = ibm_db.connect(dsn, "", "")
print()
# query = "SELECT username FROM USER1 WHERE username=?"

```

```

# stmt = ibm_db.prepare(connection, query)
# ibm_db.bind_param(stmt, 1, username)
# ibm_db.execute(stmt)
# username = ibm_db.fetch_assoc(stmt)
# print(username)
app.secret_key = 'a'

@app.route('/', methods=['GET', 'POST'])
@app.route('/register', methods=['GET', 'POST'])
def register():
    msg = ""
    if request.method == 'POST':
        username = request.form['username']
        email_id = request.form['email_id']
        phone_no = request.form['phone_no']
        password = request.form['password']
        query = "SELECT * FROM USER1 WHERE username=?;"
        stmt = ibm_db.prepare(connection, query)
        ibm_db.bind_param(stmt, 1, username)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)
        if (account):
            msg = "Account already exists!"
            return render_template('register.html', msg=msg)
        # elif not re.match(r'^@[^@]+\.[^@]+', email_id):
        #     msg = "Invalid email address"
        # elif not re.match(r'[A-Za-z0-9+]', username):
        #     msg = "Name must contain only characters and numbers"
        else:
            query = "INSERT INTO USER1 values(?,?,?,?)"
            stmt = ibm_db.prepare(connection, query)
            ibm_db.bind_param(stmt, 1, username)
            ibm_db.bind_param(stmt, 2, email_id)
            ibm_db.bind_param(stmt, 3, phone_no)
            ibm_db.bind_param(stmt, 4, password)
            ibm_db.execute(stmt)
            msg = 'You have successfully Logged In!!'
            return render_template('login.html', msg=msg)
    else:
        msg = 'PLEASE FILL OUT OF 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']
        query = "select * from user1 where username=? and password=?"
        stmt = ibm_db.prepare(connection, query)
        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']
            session['username'] = account['USERNAME']
            msg = 'Logged in Successfully'
            return render_template('welcome.html', msg=msg, username=str.upper(username))
        else:
            msg = 'Incorrect Username or Password'
            return render_template('login.html', msg=msg)
    else:
        msg = 'PLEASE FILL OUT OF THE FORM'
        return render_template('login.html', msg=msg)

```

```
@app.route('/welcome', methods=['GET', 'POST'])
def welcome():
    if request.method == 'POST':
        username = request.form['username']
        print(username)
        return render_template('welcome.html', username=username)
    else:
        return render_template('welcome.html', username=username)

if __name__ == "__main__":
    app.run(debug=True)
    app.run(host='0.0.0.0')
```