## ASSIGNMENT 7:  Module 12: Building Database Apps with PostgreSQL & Python

Create Database in PostgreSQL:

```
postgres=# create database test;
CREATE DATABASE
postgres=# \l
                                                    List of databases
    Name    |  Owner   | Encoding | Locale Provider |        Collate        |        Ctype        | Locale | ICU Rules |   Ac
cess privileges
------------+----------+----------+-----------------+---------------------+---------------------+--------+-----------+-----
--------------------
 demodb     | postgres | UTF8     | libc            | English_India.1252  | English_India.1252  |        |           |
 postgres   | postgres | UTF8     | libc            | English_India.1252  | English_India.1252  |        |           |
 students   | postgres | UTF8     | libc            | English_India.1252  | English_India.1252  |        |           |
 template0  | postgres | UTF8     | libc            | English_India.1252  | English_India.1252  |        |           | =c/p
ostgres        +
            |          |          |                 |                     |                     |        |           | post
gres=CTc/postgres
 template1  | postgres | UTF8     | libc            | English_India.1252  | English_India.1252  |        |           | =c/p
ostgres        +
            |          |          |                 |                     |                     |        |           | post
gres=CTc/postgres
 test       | postgres | UTF8     | libc            | English_India.1252  | English_India.1252  |        |           |
(6 rows)
```

Create Table in Database:

```
postgres=# create table testing(Name text , number int);
CREATE TABLE
postgres=# \d
           List of relations
 Schema |    Name     | Type  |  Owner
--------+-------------+-------+----------
 public | employees   | table | postgres
 public | testing     | table | postgres
(2 rows)
```

INSERTING DATA ;

```
postgres=# INSERT INTO testing ( name , number) VALUES ( 'Prakhar',07);
INSERT 0 1
postgres=# select * from testing
postgres-# select * from testing;
ERROR:  syntax error at or near "select"
LINE 2: select * from testing;
        ^
postgres=# select * from testing;;
  name    | number
---------+---------
 Prakhar |       7
(1 row)
```

DELETING THE DATA AND DELETING THE TABLE ;

```
postgres=# truncate table testing ;
TRUNCATE TABLE
postgres=# select * from testing;;
  name | number
------+---------
(0 rows)


postgres=# Drop table testing;
DROP TABLE
postgres=# \d
            List of relations
  Schema |    Name     | Type  |  Owner
---------+-----------+-------+-----------
  public | employees | table | postgres
(1 row)
```

## CREATING TABLE THROUGH PYTHON IN PSQL:

```python
import psycopg2

def table():
    conn = psycopg2.connect(dbname="postgres",user="postgres",password="PostgreSQL1036",host="localhost",port="5432")
    cursor = conn.cursor()
    cursor.execute('''create table testing(Name text , ID int , Age int);''')
    print('Table created successfully')

    conn.commit()
    conn.close()

    print("Connection Success!!")

table()
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    GITLENS

PS C:\Users\PRAKHAR\OneDrive\Desktop\VS-CODE\PSQL> python .\ConnectingPSQL.py
Table created successfully
Connection Success!!
PS C:\Users\PRAKHAR\OneDrive\Desktop\VS-CODE\PSQL>
```

## INSERTING VALUES:

```python
def data():
    conn = psycopg2.connect(dbname="postgres",user="postgres",password="PostgreSQL1036",host="localhost",port="5432")
    cursor = conn.cursor()
    cursor.execute('''insert into testing(Name, ID , Age ) values ('Sam', 213 ,24);''')
    print('Data added successfully')

    conn.commit()
    conn.close()

data()
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    GITLENS

                                        python -u "c:\Users\PRAKHAR\OneDrive\Desktop\VS-CODE\PSQL\ConnectingPSQL.py"
Data added successfully
(venv) PS C:\Users\PRAKHAR\OneDrive\Desktop\VS-CODE\PSQL>
```

## EXTRACTING VALUES:

```python
31
32   def extract():
33       conn = psycopg2.connect(dbname="postgres",user="postgres",password="PostgreSQL1036",host="localhost",port="5432")
34       cursor = conn.cursor()
35       cursor.execute('''select * from employees;''')
36       show = cursor.fetchone()
37       print(show)
38
39       conn.commit()
40       conn.close()
41
42   extract()
43
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   GITLENS

```
● (venv) PS C:\Users\PRAKHAR\OneDrive\Desktop\VS-CODE\PSQL> python -



                                                    python -u "c:\Users\PRAKHAR\OneDrive\Desktop\VS-CODE\PSQL\ConnectingPSQL.py"
 ('Sam', 213, 24)
✧ (venv) PS C:\Users\PRAKHAR\OneDrive\Desktop\VS-CODE\PSQL> █
```

## ADDING  VALUES :

```python
43
44   def add_data():
45       conn = psycopg2.connect(dbname="postgres",user="postgres",password="PostgreSQL1036",host="localhost",port="5432")
46       cursor = conn.cursor()
47
48       name= input('Enter the name:')
49       id = input('Enter the ID:')
50       age = input('Enter the age:')
51
52       query = ''' insert into employees(Name,id,age) values (%s,%s,%s)'''
53       cursor.execute(query,(name,id,age))
54
55       print('Data added succesfully')
56
57       conn.commit()
58       conn.close()
59
60   add_data()
61
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   GITLENS

```
● (venv) PS C:\Users\PRAKHAR\OneDrive\Desktop\VS-CODE\PSQL> python -u "c:\Users\PRAKHAR\OneDrive\Desktop\VS-CODE\PSQL\ConnectingPSQL.p
 Enter the name:Tarpita
 Enter the ID:235
 Enter the age:20
 Data added succesfully
✧ (venv) PS C:\Users\PRAKHAR\OneDrive\Desktop\VS-CODE\PSQL> █
```