

Overview

- [[Call Level Interfaces]] for dynamic SQL
- similar to [[JDBC]]

Example

- **Establish Connection**

```
conn = psycopg2.connect(  
    host="localhost", port="5432",  
    database="db1234567", user=username,  
    password=password)
```
- **Execute Statements**
 - Use local cursors

```
cur = conn.cursor()  
cur.execute("INSERT INTO Students VALUES(...)")
```
- **Process Result Sets**

```
cur.execute("SELECT SID, LName FROM Students")  
students = cur.fetchall()  
for row in students:  
    print("SID = ", row[0], end = ',')  
    print("Lname = ", row[1])
```
- **Execute Prepared Statements**

```
cur = conn.cursor()  
sql = "INSERT INTO Students VALUES(%s, %s)"  
for s in students:  
    cur.execute(sql, (s.getID(),s.getName()))  
conn.commit()
```
- **Execute Callable Statement**
 - Result set
 - No output parameters

```
cur = conn.cursor()  
cur.callproc("prepStudents", (2019, 2))  
cur.fetchone()
```
- **Close Connection**

```
cur.close()  
conn.close()
```