Connecting with psql

This guide explains how to connect to a **PostgreSQL** database using the `psql` command-line tool. It walks through the necessary setup, connection process, and execution of a simple SQL query.

Variables

To connect to a PostgreSQL database, you only need one environment variable — the **connection URI**. This URI contains all the necessary information like username, password, host, port, and database name.

Variable	Description	Purpose
POSTGRESQL_URI	Full PostgreSQL connection string (from the Elestio service overview page)	Provides all necessary credentials and endpoint details in a single URI format.

The URI will look like this:

```
postgresql://<USER>:<PASSWORD>@<HOST>:<PORT>/<DATABASE>
```

You can find the details needed in the URI from the **Elestio service overview** details. Copy and replace the variables carefully in the URI example provided above.

Prerequisites

While following this tutorial, you will need to have `psql` already installed; if not head over to https://www.postgresql.org/download/ and download it first.

Connecting to PostgreSQL

Open your terminal and run the following command to connect to your PostgreSQL database using the full connection URI:

```
psql POSTGRESQL_URI
```

If the connection is successful, you'll see output similar to this. Here it will show you the database you tried to connect to, which in this case is Elestio:

```
psql (17.4, server 16.8 (Debian 16.8-1.pgdg120+1))
SSL connection (protocol: TLSv1.3, cipher: TLS_AES_256_GCM_SHA384, compression: off, ALPN: none)
Type "help" for help.
```

```
Elestio=#
```

To ensure you're connected correctly, run this command inside the `psql` prompt:

```
SELECT version();
```

You should receive output like the following:

```
                                                        version
---------------------------------------------------------------------------------------------------------------
 PostgreSQL 16.8 (Debian 16.8-1.pgdg120+1) on x86_64-pc-linux-gnu, compiled by gcc (Debian 12.2.0-14)
12.2.0, 64-bit
(1 row)
```

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