

Project: Creating a PostGreSQL Database Using SQL Shell

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Prerequisite: PostGreSQL downloaded and installed on machine. Download [here](#).

Introduction

Setting up a PostgreSQL database using the SQL Shell (psql) is a straightforward process that allows you to manage your databases efficiently from the command line. This guide will walk you through the steps to set up the SQL Shell, connect to your PostgreSQL server, and perform basic database operations such as creating, connecting to, and listing databases and tables. By following these instructions, you'll be able to leverage the full power of PostgreSQL for your projects.

SQL Shell Setup

1. Open a command prompt (windows) or terminal (mac).



```
C:\WINDOWS\system32\cmd. x + v
Microsoft Windows [Version 10.0.26100.2454]
(c) Microsoft Corporation. All rights reserved.
C:\Users\paule>
```

For Windows go to this path: **C:\Program Files\PostgreSQL\<version>\bin**

```
C:\Users\paule>cd C:\Program Files\PostgreSQL\17\bin
C:\Program Files\PostgreSQL\17\bin>
```

For Mac, go to this directory: **/usr/local/pgsql/bin**

Then start the SQL Shell (psql) with this psql command:

psql -h localhost -p 5432 -d postgres -U postgres

Breakdown of command:

- -h: Hostname (default is localhost).
- -p: Port number (default is 5432).
- -d: Database name (default is postgres).
- -U: Username (default is postgres).
-

```
C:\Program Files\PostgreSQL\17\bin>psql -h localhost -p 5432 -d postgres -U postgres
Password for user postgres: |
```

Next enter your password (should be the same one you set up during the installation) and the output should be "postgres=#" which indicates you are in *postgres* now and can start doing database work.

```
C:\Program Files\PostgreSQL\17\bin>psql -h localhost -p 5432 -d postgres -U postgres
Password for user postgres:

psql (17.0)
WARNING: Console code page (437) differs from Windows code page (1252)
         8-bit characters might not work correctly. See psql reference
         page "Notes for Windows users" for details.
Type "help" for help.

postgres=# |
```

From here on out, sql and psql commands will be used.

Here are some of the commands to get started with building the database.

Create a database.

CREATE DATABASE <database name>;

```
postgres=# CREATE DATABASE SkillsetDB;  
CREATE DATABASE  
postgres=# |
```

Get list of databases.

\l

```
postgres=# \l  
          Name | Owner | Encoding | Locale Provider | Collate | Ctype | Locale | ICU Rules | Access privileges  
-----  
postgres      | postgres | UTF8      | libc             | English_United States.1252 | English_United States.1252 |          |          |  
skillsetdb    | postgres | UTF8      | libc             | English_United States.1252 | English_United States.1252 |          |          |  
template0     | postgres | UTF8      | libc             | English_United States.1252 | English_United States.1252 |          |          |  
template1     | postgres | UTF8      | libc             | English_United States.1252 | English_United States.1252 |          |          |  
(4 rows)
```

Connect to a Database.

\c <database name>

```
postgres=# \c skillsetdb  
You are now connected to database "skillsetdb" as user "postgres".  
skillsetdb=# |
```

Disconnect from a Database.

\q

```
skillsetdb=# \q
```

```
C:\Program Files\PostgreSQL\17\bin>
```

That's it! You created a database in PostgreSQL!

By following the steps outlined in this guide, you should now have a fully functional PostgreSQL database set up and ready for use. The SQL Shell (psql) provides a powerful interface for managing your databases, allowing you to perform a wide range of operations with ease. Whether you're creating new databases, connecting to existing ones, or managing tables [[add link to tables documentation](#)], the SQL Shell is an invaluable tool for any PostgreSQL user.