

17 Practical psql Commands That You Don't Want To Miss

?

Summary: in this tutorial, we give you a list of common psql commands that helps you query data from PostgreSQL database server faster and more effective.

Connect to PostgreSQL database

The following command connects to a database under a specific user. After pressing `Enter` PostgreSQL will ask for the password of the user.

```
1 | psql -d database -U user -W
```

For example, to connect to `dvdrental` database under `postgres` user, you use the following command:

```
1 | C:\Program Files\PostgreSQL\9.5\bin>psql -d dvdrental -U postgres -W
2 | Password for user postgres:
3 | dvdrental=#
```

If you want to connect to a database that resides on another host, you add the `-h` option as follows:

```
1 | psql -U user -h host "dbname=db sslmode=require"
```

Switch connection to a new database

Once you are connected to a database, you can switch the connection to a new database under a user specified by `user`. The previous connection will be closed. If you omit the `user` parameter, the current `user` is assumed.

```
1 | \c dbname username
```

The following command connects to `dvdrental` database under `postgres` user:

```
1 | postgres=# \c dvdrental
2 | You are now connected to database "dvdrental" as user "postgres".
3 | dvdrental=#
```

List available databases

To list all databases in the current PostgreSQL database server, you use `\l` command:

```
1 | \l
```

List available tables

To list all tables in the current database, you use `\dt` command:

```
1 | \dt
```

Note that this command shows only table in the current connected database.

Describe a table

To describe a table such as a column, type, modifiers of columns, etc., you use the following command:

```
1 | \d table_name
```

List available functions

To list available functions in the current database, you use the `\df` command.

```
1 | \df
```

List available views

To list available views in the current database, you use the `\dv` command.

```
1 | \dv
```

List users and their roles

To list all users and their assign roles, you use `\du` command:

```
1 | \du
```

Execute the previous command

To retrieve the current version of PostgreSQL server, you use the `version()` function as follows:

```
1 | SELECT version();
```

Now, you want to save time typing the previous command again, you can use `\g` command to execute the previous command:

```
1 | \g
```

psql executes the previous command again, which is the [SELECT statement](#).

Command history

To display command history, you use the `\s` command.

```
1 \s filename
```

Execute psql commands from a file

In case you want to execute psql commands from a file, you use `\i` command as follows:

```
1 \i filename
```

Get help on psql commands

To know all available psql commands, you use the `\?` command.

```
1 \?
```

To get help on specific PostgreSQL statement, you use the `\h` command.

For example, if you want to know detailed information on [ALTER TABLE](#) statement, you use the following command:

```
1 \h ALTER TABLE
```

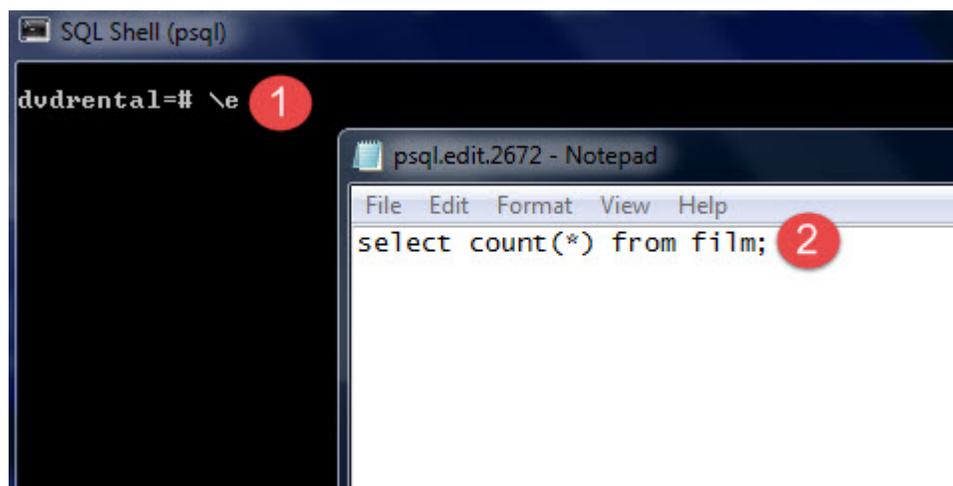
Turn on query execution time

To turn on query execution time, you use the `\timing` command.

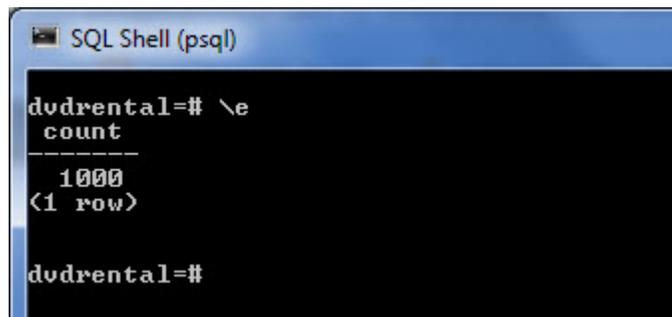
```
1 dvdrental=# \timing
2 Timing is on.
3 dvdrental=# select count(*) from film;
4 count
5 -----
6      1000
7 (1 row)
8
9 Time: 1.495 ms
10 dvdrental=#
```

Edit command in your own editor

It is very handy if you can type the command in your favorite editor. To do this in psql, you use the `\e` command. After issuing the command, psql will open the text editor defined by your EDITOR environment variable and place the most recent command that you entered in psql into the editor.



After you type the command in the editor, save it, and close the editor, psql will execute the command and return the result.



It is more useful when you edit a function in the editor.

```
1 | \ef [function name]
```

```

public | _group_concat
public | film_in_stock
public | film_not_in_stock
public | get_customer_balance
public | group_concat
public | inventory_held_by_cust
public | inventory_in_stock
public | last_day
public | last_updated
public | rewards_report
<10 rows>

\dvdrental=# \ef film_in_stock
CREATE OR REPLACE FUNCTION public.film_in_stock(p
  RETURNS SETOF integer
  LANGUAGE sql
  AS $function$
    SELECT inventory_id
    FROM inventory
    WHERE film_id = $1
    AND store_id = $2
    AND inventory_in_stock(inventory_id);
  $function$

```

Switch output options

psql supports some types of output format and allows you to customize how the output is formatted on fly.

`\a` command switches from aligned to non-aligned column output.

`\H` command formats the output to HTML format.

Quit psql

To quit psql, you use `\q` command and press `enter` to exit psql.

```
1 | \q
```

In this tutorial, we have shown you how to use psql commands to perform various commonly used tasks.

Related Tutorials

[PostgreSQL Describe Table](#)

[PostgreSQL List Users](#)

Was this tutorial helpful ?

