

Data
Switch and connect
<code>\$ sudo -u postgres psql</code>
List all databases
<code>postgres=# \l</code>
Connect to the database named postgres
<code>postgres=# \c postgres</code>
Disconnect
<code>postgres=# \q</code>
<code>postgres=# \!</code>

psql commands

Option	Example	Description
<code>[-d] <database></code>	<code>psql -d mydb</code>	Connecting to database
<code>-U</code>	<code>psql -U john mydb</code>	Connecting as a specific user
<code>-h -p</code>	<code>psql -h localhost -p 5432 mydb</code>	Connecting to a host/port
<code>-U -h -p -d</code>	<code>psql -U admin -h 192.168.1.5 -p 2506 -d mydb</code>	Connect remote PostgreSQL
<code>-W</code>	<code>psql -W mydb</code>	Force password
<code>-c</code>	<code>psql -c '\c postgres' -c '\dt'</code>	Execute a SQL query or command
<code>-H</code>	<code>psql -c "\l+" -H postgres > database.html</code>	Generate HTML report
<code>-l</code>	<code>psql -l</code>	List all databases
<code>-f</code>	<code>psql mydb -f file.sql</code>	Execute commands from a file
<code>-V</code>	<code>psql -V</code>	Print the psql version

Tables

List tables, in current db
<code>\dt</code>
<code>SELECT table_schema, table_name FROM information_schema.tables ORDER BY table_schema, table_name;</code>
List tables, globally
<code>\dt *.*.</code>
<code>SELECT * FROM pg_catalog.pg_tables</code>
List table schema
<code>\d <table_name></code>
<code>\d+ <table_name></code>
<code>SELECT column_name, data_type, character_maximum_length FROM INFORMATION_SCHEMA.COLUMNS WHERE table_name = '<table_name>';</code>
Create table
<code>CREATE TABLE <table_name> (</code>

Data	
<code><column_name> <column_type>, <column_name> <column_type> >;</code>	
Create table, with an auto-incrementing primary key	
<code>CREATE TABLE <table_name> (<column_name> SERIAL PRIMARY KEY >;</code>	
Delete table	
<code>DROP TABLE IF EXISTS <table_name> CASCADE;</code>	

Databases	
List databases	
<code>\l</code>	
Connect to database	
<code>\c <database_name></code>	
Show current database	
<code>SELECT current_database();</code>	
Create database	
<code>CREATE DATABASE <database_name> WITH OWNER <username>;</code>	
Drop database	
<code>DROP DATABASE IF EXISTS <database_name>;</code>	
Rename database	
<code>ALTER DATABASE <old_name> RENAME TO <new_name>;</code>	

Recon	
Show version	
<code>SHOW SERVER_VERSION;</code>	
Show system status	
<code>\conninfo</code>	
Show environmental variables	
<code>SHOW ALL;</code>	
List users	
<code>SELECT rolname FROM pg_roles;</code>	
Show current user	
<code>SELECT current_user;</code>	
Show current user's permissions	
<code>\du</code>	
Show current database	
<code>SELECT current_database();</code>	
Show all tables in database	
<code>\dt</code>	
List functions	
<code>\df <schema></code>	

Permissions	
Become the postgres user, if you have permission errors	

Data	
sudo su - postgres	
psql	
Grant all permissions on database	
GRANT ALL PRIVILEGES ON DATABASE <db_name> TO <user_name>;	
Grant connection permissions on database	
GRANT CONNECT ON DATABASE <db_name> TO <user_name>;	
Grant permissions on schema	
GRANT USAGE ON SCHEMA public TO <user_name>;	
Grant permissions to functions	
GRANT EXECUTE ON ALL FUNCTIONS IN SCHEMA public TO <user_name>;	
Grant permissions to select, update, insert, delete, on a all tables	
GRANT SELECT, UPDATE, INSERT ON ALL TABLES IN SCHEMA public TO <user_name>;	
Grant permissions, on a table	
GRANT SELECT, UPDATE, INSERT ON <table_name> TO <user_name>;	
Grant permissions, to select, on a table	
GRANT SELECT ON ALL TABLES IN SCHEMA public TO <user_name>;	

Columns	
Add column	
ALTER TABLE <table_name> IF EXISTSADD <column_name> <data_type> [<constraints>;]	
Update column	
ALTER TABLE <table_name> IF EXISTSALTER <column_name> TYPE <data_type> [<constraints>;]	
Delete column	
ALTER TABLE <table_name> IF EXISTSDROP <column_name>;	
Update column to be an auto-incrementing primary key	
ALTER TABLE <table_name>ADD COLUMN <column_name> SERIAL PRIMARY KEY;	
Insert into a table, with an auto-incrementing primary key	
INSERT INTO <table_name>VALUES (DEFAULT, <value1>;	
INSERT INTO <table_name> (<column1_name>,<column2_name>)VALUES (<value1>,<value2>);	

[Select](http://www.postgresql.org/docs/current/static/sql-select.html) all data	
SELECT * FROM <table_name>;	
Read one row of data	
SELECT * FROM <table_name> LIMIT 1;	
Search for data	
SELECT * FROM <table_name> WHERE <column_name> = <value>;	

Data	
Insert	data
	<code>INSERT INTO <table_name> VALUES(<value_1>, <value_2>);</code>
Update	data
	<code>UPDATE <table_name>SET <column_1> = <value_1>, <column_2> = <value_2>WHERE <column_1> = <value>;</code>
Delete	all data
	<code>DELETE FROM <table_name>;</code>
	Delete specific data
	<code>DELETE FROM <table_name>WHERE <column_name> = <value>;</code>
	[Select](http://www.postgresql.org/docs/current/static/sql-select.html) all data
	<code>SELECT * FROM <table_name>;</code>
	Read one row of data
	<code>SELECT * FROM <table_name> LIMIT 1;</code>
	Search for data
	<code>SELECT * FROM <table_name> WHERE <column_name> = <value>;</code>
Insert	data
	<code>INSERT INTO <table_name> VALUES(<value_1>, <value_2>);</code>
Update	data
	<code>UPDATE <table_name>SET <column_1> = <value_1>, <column_2> = <value_2>WHERE <column_1> = <value>;</code>
Delete	all data
	<code>DELETE FROM <table_name>;</code>
	Delete specific data
	<code>DELETE FROM <table_name>WHERE <column_name> = <value>;</code>