

psql client options

-l	List all available databases
-d __data base__	Connect to database
-U __user__	Connect with user
-W __password	Connect with password
-h __host name__	Connect to host
-p __port__	Connect via port
-c '__com mand'	Run command
-f	Run file
-L __logf ile__	Output query output to log file and stdout
-o __file__	Output query output to log file
-t	Print tuples only (no headers/footers)

psql commands

Command overview	\?
Exit	\q
Connect to database	\c __data base__
Show table definition	\d __table__
List tables	\dt
List databases	\l
List schemas	\dn
List functions	\df
List views	\dv
Show function SQL code	\df+ __func tion__
Pretty-format query results	\x

Query analysis

See the query plan for the given query	EXPLAIN __query__
See and execute the query plan for the given query	EXPLAIN ANALYZE __query__
Collect statistics	ANALYZE [__table__]

Query analysis (cont)

Get statistics for table	SELECT * from pg_stat_user_tables where relname=__table__
Get statistics for table in current transaction	SELECT * from pg_stat_xact_user_tables where relname=__table__

References/Credits

<https://gist.github.com/Kartones/dd3ff5ec5ea238d4c546>
<https://www.postgresql.org/docs/9.6/static/index.html>

DDL

Create database	CREATE DATABASE <da tab ase _na me> WITH OWNER <owner name>;
Delete database	DROP DATABASE IF EXISTS <da tab ase _na me>;
Rename database	ALTER DATABASE <ol d_n ame> RENAME TO <ne w_n ame>;
Create table	CREATE TABLE <table_name>(<column_name> SERIAL PRIMARY KEY, <column_name> <co lum n_t ype>);
Delete table	ROP TABLE IF EXISTS <ta ble _na me> CASCADE;
Add column	ALTER TABLE <ta ble _na me> IF EXISTS ADD <co lum n_n ame> <da ta_ typ e> [<c or d_ na me>];
Alter column	ALTER TABLE <ta ble _na me> IF EXISTS ALTER <co lum n_n ame> TYPE <da ta_ typ e> [<c or d_ na me>];
Delete column	ALTER TABLE <ta ble _na me> IF EXISTS DROP <co lum n_n ame>;

Constraints

Add primary key	ALTER TABLE __table__ ADD CONSTRAINT __constraintname__ PRIMARY KEY(__col__, __col__);
Add unique	ALTER TABLE __table__ ADD CONSTRAINT __constraintname__ UNIQUE(__col__, __col__);



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Constraints (cont)

Add foreign key ALTER TABLE __table__
ADD CONSTRAINT __constraintname__
FOREIGN KEY(__col__, __col__)
REFERENCES __table__(__col__, __col__);

Add check ALTER TABLE __table__
ADD CONSTRAINT __constraintname__
CHECK(__condition__);

Drop ALTER TABLE __table__
DROP CONSTRAINT __constraint__;

Handy queries

List proced-
ure/fu-
nction SELECT * FROM pg_proc
WHERE proname='__p roc edu ren ame__'

Show DB table space in use SELECT pg_size_pretty(pg_total_relation_size('__table__'));

Show DB space in use SELECT pg_size_pretty(pg_database_size('__database__'));

Show current user's statement timeout; show statement_timeout;

Queries being executed SELECT
datname,
application_name,
pid,
backend_start,
query_start,
state_change,
state,
query
FROM
pg_stat_activity
WHERE
datname='__database__';

Handy queries (cont)

Get all queries from all dbs waiting for data SELECT * FROM pg_stat_activity WHERE wait:

Currently running queries with process pid SELECT
pg_stat_get_backend_pid(s.backend_id),
pg_stat_get_backend_activity(s.backend_id),
current_query
FROM
(SELECT pg_stat_get_backend_idset())
AS s;

Users

Add user ADD USER __user__;

Drop user DROP USER __user__;

Add user with password ADD USER __user__
WITH PASSWORD __password__;

Grant permissions for table GRANT INSERT, UPDATE,
DELETE
ON TABLE __table__ TO __user__;

Grant permissions for all tables GRANT INSERT, UPDATE,
DELETE
ON ALL TABLES TO __user__;

Grant permissions for sequence GRANT USAGE
ON SEQUENCE __sequence__ TO
__user__;

Grant permissions for all sequences GRANT USAGE
ON ALL SEQUENCES TO __user__;

Grant permissions for function GRANT EXECUTE
ON FUNCTION __function__ TO
__user__;

Grant permissions for all functions GRANT EXECUTE
ON ALL FUNCTIONS TO __user__;



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Common Functions

Current date	<code>current_date</code>
Current time	<code>current_time</code>
Current timestamp	<code>localtimestamp</code>
Get date part of column	<code>date(__col__)</code>
Get time part of column	<code>__col__::time</code>
Add interval to timestamp	<code>__col__ + interval '1 hour'</code>
Return serial number	<code>INSERT ... RETURNING LASTVAL();</code>
Conditional expressions	<code>CASE expression WHEN value THEN result [WHEN ...] [ELSE result] END</code>
Null values	<code>COALESCE(__value__, __default1__, __default2__)</code>
Cast	<code>__value__::__type__</code>
Execute function returning value	<code>SELECT __function__;</code>
Execute function returning table	<code>SELECT * FROM __function__;</code>



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