

Data Definition Language (DDL)

Used by the database administrator (DBA) to define the database's data mode.

```
CREATE TABLE, DROP TABLE, ALTER TABLE, ...
```

Allows to create complex schemas and maintain them

Postgres Commands

[Docs](#)

Command	Action	Description
<code>psql</code>	Open PostgreSQL command-line interface	
<code>psql --help</code>	Help with PostgreSQL command-line interface	
<code>\q</code>	Quit PostgreSQL command-line interface	
<code>\l</code>	Show list of databases	
<code>\?</code>	help	
<code>-d</code>	Database	
<code>\d</code>	View list of relations in database	
<code>\c</code>	Switch database	<code>\c db_name</code>
<code>-h</code>	Database Server host	
<code>-p</code>	Database port	
<code>-U</code>	Database user name	
<code>\dt</code>	Show database tables	

SQL Data Types

Data Type	Description
CHAR(<i>n</i>)	Holds a fixed
VARCHAR(<i>n</i>)	Holds a variable length string with maximum size <i>n</i>
SMALLINT	Small integer (no decimal) between −32,768 and 32,767
INT	Integer (no decimal) between −2,147,483,648 and 2,147,483,647
FLOAT(<i>n</i> , <i>d</i>)	Small number with a floating decimal point. The total maximum number of digits is <i>n</i> with a maximum of <i>d</i> digits to the right of the decimal point.
DOUBLE(<i>n</i> , <i>d</i>)	Large number with a floating decimal point. The total maximum number of digits is <i>n</i> with a maximum of <i>d</i> digits to the right of the decimal point.
DATE	Date in format YYYY-MM-DD
DATETIME	Date and time in format YYYY-MM-DD HH:MI:SS
TIME	Time in format HH:MI:SS
BOOLEAN	True or false
BLOB	Binary large object (e.g., image, audio, video)

Create a database

Open `psql` and write

```
CREATE DATABASE <db_name>;
```

Remember the `;` after the name

Connect to database

```
psql -d <db_name> -U <username>
```

Connect with hostname, port and username

```
psql -h <hostname> -p <port> -U <username> -d <db_name>
```

You might need to enter the database password after execution of command

Delete database/table

```
DROP DATABASE <db_name>;
```

```
DROP TABLE <table_name>;
```

Remember the `;` after the name

Create Table

```
CREATE TABLE <table_name> (  
    <column_name> + <data type> + <costraits if any>  
);
```

Example of a table of a `person` (WITHOUT constraints)

```
CREATE TABLE person (  
    id int,  
    first_name VARCHAR(50),  
    last_name VARCHAR(50),  
    gender VARCHAR(6),  
    date_of_birth DATE,  
);
```

Example of a table of a `person` (WITH constraints)

```
CREATE TABLE person (  
    id BIGSERIAL NOT NULL PRIMARY KEY,  
    first_name VARCHAR(50) NOT NULL,  
    last_name VARCHAR(50) NOT NULL,  
    gender VARCHAR(6) NOT NULL,  
    date_of_birth DATE NOT NULL,  
);
```