

## PostgreSQL - CREATE Database

This chapter discusses about how to create a new database in your PostgreSQL. PostgreSQL provides two ways of creating a new database –

- Using `CREATE DATABASE`, an SQL command.
- Using *createdb* a command-line executable.

### Using CREATE DATABASE

This command will create a database from PostgreSQL shell prompt, but you should have appropriate privilege to create a database. By default, the new database will be created by cloning the standard system database *template1*.

#### Syntax

The basic syntax of `CREATE DATABASE` statement is as follows –

```
CREATE DATABASE dbname;
```

where *dbname* is the name of a database to create.

#### Example

The following is a simple example, which will create **testdb** in your PostgreSQL schema

```
postgres=# CREATE DATABASE testdb;  
postgres-#
```

### Using createdb Command

PostgreSQL command line executable *createdb* is a wrapper around the SQL command `CREATE DATABASE`. The only difference between this command and SQL command `CREATE DATABASE` is that the former can be directly run from the command line and it allows a comment to be added into the database, all in one command.

#### Syntax

The syntax for *createdb* is as shown below –

```
createdb [option...] [dbname [description]]
```

## Parameters

The table given below lists the parameters with their descriptions.

S. No.	Parameter & Description
1	<b>dbname</b> The name of a database to create.
2	<b>description</b> Specifies a comment to be associated with the newly created database.
3	<b>options</b> command-line arguments, which createdb accepts.

## Options

The following table lists the command line arguments createdb accepts –

S. No.	Option & Description
1	<b>-D tablespace</b> Specifies the default tablespace for the database.
2	<b>-e</b> Echo the commands that createdb generates and sends to the server.
3	<b>-E encoding</b> Specifies the character encoding scheme to be used in this database.
4	<b>-I locale</b> Specifies the locale to be used in this database.
5	<b>-T template</b> Specifies the template database from which to build this database.
6	<b>--help</b> Show help about createdb command line arguments, and exit.
7	<b>-h host</b> Specifies the host name of the machine on which the server is running.
8	<b>-p port</b> Specifies the TCP port or the local Unix domain socket file extension on which the server is listening for connections.
9	<b>-U username</b> User name to connect as.
10	<b>-w</b> Never issue a password prompt.
11	<b>-W</b>

Force createdb to prompt for a password before connecting to a database.

Open the command prompt and go to the directory where PostgreSQL is installed. Go to the bin directory and execute the following command to create a database.

```
createdb -h localhost -p 5432 -U postgres testdb
password *****
```

The above given command will prompt you for password of the PostgreSQL admin user, which is **postgres**, by default. Hence, provide a password and proceed to create your new database

Once a database is created using either of the above-mentioned methods, you can check it in the list of databases using \l, i.e., backslash el command as follows –

```
postgres-# \l
```

List of databases					
Name	Owner	Encoding	Collate	Ctype	Access privileges
postgres	postgres	UTF8	C	C	
template0	postgres	UTF8	C	C	=c/postgres +
template1	postgres	UTF8	C	C	=c/postgres +
testdb	postgres	UTF8	C	C	postgres=CTc/postgres

```
(4 rows)

postgres-#
```