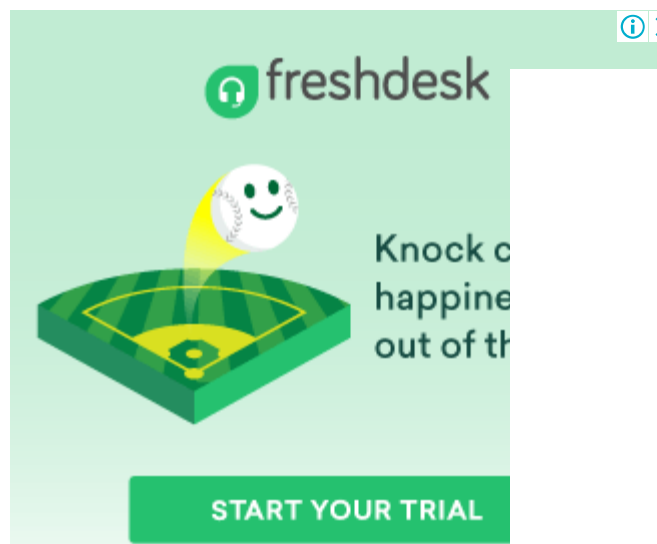




PostgreSQL add or create a user account and grant permission for database

March 6, 2007 in [Debian](#) / [Ubuntu](#), [Linux](#), [PostgreSQL](#), [RedHat](#) and [Friends](#), [Solaris-U](#)
[nix](#), [Suse](#), [Ubuntu Linux](#), [UNIX](#) last updated October 24, 2007

Q. How do I create a user account called tom and grant permission for database called jerry?



A. You need to use following commands.

=> **adduser** – UNIX/Linux adduser command to add a user to /etc/passwd file

=> **psql** => It is a terminal-based front-end to PostgreSQL.

=> **CREATE USER** – Adds a new user to a PostgreSQL database cluster.

=> **CREATE DATABASE** – create a new database

=> **GRANT ALL PRIVILEGES** – define access privileges

Procedure to add a user to PostgreSQL database

To create a normal user and an associated database you need to type the following commands. The easiest way to use is to create a Linux / UNIX IDENT authentication i.e. add user tom to UNIX or Linux system first.

Step # 1: Add a Linux/UNIX user called tom

Type the following commands to create a UNIX/Linux user called tom:

```
# adduser tom
# passwd tom
```

Step # 2: Becoming a superuser

You need to login as database super user under postgresql server. Again the simplest way to connect as the postgres user is to change to the postgres unix user on the database server using su command as follows:

```
# su - postgres
```

Step #3: Now connect to database server

Type the following command

```
$ psql template1
```

OR

```
$ psql -d template1 -U postgres
```

Output:

```
Welcome to psql 7.4.16, the PostgreSQL interactive terminal.
```

```
Type:  \copyright for distribution terms
        \h for help with SQL commands
        \? for help on internal slash commands
        \g or terminate with semicolon to execute query
        \q to quit
```

```
template1=#
```

Step #4: Add a user called tom

Type the following command to create a user called tom with a password called myPassword (you need to type command highlighted with red color):

```
template1=# CREATE USER tom WITH PASSWORD 'myPassword';
```

Step #5: Add a database called jerry

Type the following command (you need to type command highlighted with red color):

```
template1=# CREATE DATABASE jerry;
```

Now grant all privileges on database

```
template1=# GRANT ALL PRIVILEGES ON DATABASE jerry to tom;
```

Type \q to quit:

```
template1=# \q
```

Step #6: Test tom user login

In order to login as tom you need to type following commands. Login as tom or use su command:

```
$ su - tom
```

```
$ psql -d jerry -U tom
```

Output:

```
Welcome to psql 7.4.16, the PostgreSQL interactive terminal.
```

```
Type:  \copyright for distribution terms
        \h for help with SQL commands
        \!? for help on internal slash commands
        \g or terminate with semicolon to execute query
        \q to quit
```

```
jerry=>
```

Posted by: Vivek Gite

The author is the creator of nixCraft and a seasoned sysadmin, DevOps engineer, and a trainer for the Linux operating system/Unix shell scripting. Get the **latest tutorials on SysAdmin, Linux/Unix and open source topics** via [RSS/XML feed](#) or [weekly email newsletter](#).

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 47 comment

Mike January 24, 2008 at 1:19 am

How can I do these same steps but on Windows?

Many thanks,

Mike

parth January 3, 2011 at 7:34 am

write the same commands in cmd or just use "pgadmin" to do this stuff

Njoy :)

windows July 17, 2008 at 8:54 pm

Mike while running windows:

open up a command window and run:
format c:

that will get rid of your windows issue nicely. ;) Before you do that you might want to have a linux cd handy recommending ubuntu.

Josh M. February 19, 2011 at 4:29 am

Funny thing is you wouldn't even need instructions to do this stuff in Windows. But in a cryptic Linux OS nothing is obvious.

David September 19, 2011 at 9:13 pm

Cryptic is your brain !!!

vishwas August 5, 2008 at 9:41 am

it is works thank u for helping me

roger December 1, 2008 at 9:51 pm

Works! Awesome!

Allan Anderson January 12, 2009 at 10:53 pm

This is the first (right on instructions) I have ever had the privilege to use and the only ones I have ever used that are right on.
Where can I find more of these easy to use fully explained to the smallest detail instructions.

Awesome

Allan

Xav February 18, 2009 at 9:24 am

Great help thanks, and excellent humor also. I wonder why Mike has not responded yet LOL...

semuta February 28, 2009 at 12:40 am

Thank you for the concise commands.

Arteal March 7, 2009 at 9:34 pm

This is great beginner's help, thanks :) But Will be great to explain here how to setup pgsq| user without creating UNIX user, because i seem this as not so great resolution to create UNIX user for every pgsq| user. Anyway, thanks for help once more :)

cam March 15, 2009 at 11:59 pm

Awesome worked a treat thanks a lot. :D

joshg May 1, 2009 at 3:57 pm

Great, simple and concise. Thanks a lot.

AfroSoft May 17, 2009 at 9:55 pm

@Arteal

This is where windows informations can come useful.

SIFE March 13, 2010 at 11:29 am

@Mike

go to:

start->programs->postgreSQL 8.*->SQL shell

login with your postgres user and password then type this commands in this order :

```
CREATE USER win;
```

```
CREATE DATABASE test;
```

```
GRANT ALL PRIVILEGES ON DATABASE test to win;
```

change win to a defined user by you ,and test to a database you want .

John July 29, 2010 at 6:51 am

And to undo:

```
REVOKE ALL ON DATABASE jerry FROM tom;
```

```
DROP USER tom
```

```
DROP DATABASE jerry
```

drone115b August 20, 2010 at 7:54 pm

So how do you query the permissions a user has? It seems naturally that, after changing these settings a careful admin will want to verify them.

gnubala September 7, 2010 at 1:19 pm

i need help

i need to see how many users have created. is it possible?

is any command is there for listing the users in postgres?

lakshmi September 13, 2010 at 10:04 am

this information is gud but their should be continuation to another relevant topic

gnubala September 14, 2010 at 12:32 pm

using \du command we can see the list of users which we have created

Jaysunn March 5, 2011 at 5:53 pm

Vivek,

I used this great quick tutorial to get me out of a place that I was unfamiliar with. Thanks!!!

Question 1. what the heck does postgresql mean, the name?

I see post, but gre? Maybe you know?

jaysunn

nixCraft March 7, 2011 at 12:45 pm

Jaysunn,

PostgreSQL[1] evolved from the **Ingres** project at the University of California, Berkeley. In 1982, the project leader, Michael Stonebraker, left Berkeley to make a proprietary version of Ingres. He returned to Berkeley in 1985 and started a post-Ingres project to address the problems with contemporary database systems that had become increasingly clear during the early 1980s. The new project, Postgres, aimed to add the fewest features needed to completely support types. These features included the ability to define types and to fully describe relationships “something used widely before but maintained entirely by the user. In Postgres, the database “understood” relationships, and could retrieve information in related tables in a natural way using rules. Postgres used many of the ideas of Ingres, but not its code.

[1] Source: [Wikipedia](#)

HTH

Jeff March 9, 2011 at 6:30 pm

Great instructions. Thank you very much! On to figure out how to login to the database via PHP...

suhail March 11, 2011 at 9:16 am

just wanted to add

to create with UTF8 :-

```
CREATE DATABASE example WITH ENCODING 'UTF8';
```

JACOB OBINGUAR March 28, 2011 at 12:43 am

Hi! I am new to PostgreSQL. This page has so much help! Thanks a lot!!! Just one more question, how do give additional roles to the user you have created like (create role, create db etc..)? Once again, thanks!

Ralph Siegler September 13, 2011 at 4:43 pm

Nonsense, GNU/Linux admin is much easier than Windows. I speak as former Windows and Metaframe admin. The Windows admins at my employer spend more time by a factor of three to admin each windows box as I do with all the Linux boxes together. The command line admin of postgresql in windows is the same, or you can use GUI tools to admin it the same way in Windows as Linux. What you are really saying is you only want to stay with one way of doing things without learning any better way. Windows is totally crippled and featureless compared to what GNU/Linux can do, and is slower and requires twice the RAM for a given job. And to show my objectiveness, there are even better OS than Linux, the BSD for example like FreeBSD or OpenBSD are of even higher quality, or OpenSolaris. All those can also run Postgresql, though FreeBSD would probably be the fastest.

Arseny May 23, 2012 at 3:34 pm

Is it necessary to create UNIX-account? Is it possible to connect to PostgreSQL without UNIX-accounts?

jamey October 1, 2012 at 12:07 pm

I didn't find it necessary to do so, that's why you have the alternative command of psql -U

I think it is to make it easier for some or if you wanted to have a separate linux account to handle these things on the system.

Rohan July 4, 2012 at 5:10 am

hay last step doesnt work..

it gives me error massage

psql: FATAL: no pg_hba.conf entry for host "[local]", user "rohan", database "shree1", SSL off

Infoholico August 2, 2012 at 1:03 pm

Hello, thanks for this "how to", but when adding "su - postgres" command line in my Terminal it asks for a password, I've introduced my password, the MySQL Password and the Unix Password it asked when creating gnuhealth user but none of them work what am I doing wrong?

Ali Ardestani August 17, 2012 at 11:08 pm

```
$ psql -d myDb -U username -W
```

needs to change to

```
$ psql -h localhost -d myDb -U username -W
```

The first one gave me IDENT error

Mike August 23, 2012 at 4:38 am

That depends. If you have authentication set to "peer" in your /etc/postgresql/9.1/main/pg_hba.conf file, then you can either change that to "md5", or use the "-h localhost" or "-h 127.0.0.1" approach. If you already are using "md5" for authentication in that file, then the command is fine as it is, and you don't need to use "-h localhost".

max August 25, 2012 at 7:36 pm

Thank you for this! Was wondering where the password was supposed to be entered.

jamey October 1, 2012 at 12:09 pm

As I'm only accessing from localhost I have to specify -h localhost

I enjoy this default behavior as it is better defaults from a security standpoint.

renoidooizawa August 24, 2012 at 9:00 am

Great! as newbie I need instruction as simple as this!

Sowbi September 7, 2012 at 7:08 am

When i found critical to do this task. your commands helps out to do fast..

Many thanks for your work.. Kepp on going..

peter November 29, 2012 at 10:03 pm

Thanks you so much!

What a nightmare to get this going. I think postgres could be much more popular if they just added a default user with a default password with a default database or the power to create one, and also allowed connections from other computers without having to dig through a million documents. I got a 1000 page book on postgres and still couldn't get it to work. It looks like a good database, but they really try hard to keep the learning curve really steep. In any case, thanks again!

name February 18, 2013 at 9:01 am

And again it saved my day.

Thank you very much!

amir September 29, 2013 at 11:55 am

copy privileges from one user to another:

```
GRANT user1 TO user2;
```

John Varghese November 26, 2013 at 6:21 pm

Awesome! Thanks.

Dtr April 11, 2014 at 8:06 am

Is it really necessary to create linux user?

I followed only steps 4 and 5 and database, user and privileges was created successfully.

rubist May 8, 2014 at 9:22 am

Nice post.

I just created psql user and grant all privileges to the user for existing database. Didn't create any separate user in Linux. Execution Successful.

What will cause if I just created psql user and no such user in linux?

j.murray June 12, 2014 at 3:02 pm

Hi all,

Firstly i know absolutely nothing about 'postgres' so I probably shouldn't be trying to tinker with it.

After running a scan I keep getting a msg. saying;

'The version detected of PostgreSQL 8.x was 8.4.20.14 etc. while the latest version including one or more security fixes is 8.4.21.' ~ when I click on 'Install Solution' & follow the instructions I get as far as 'Please provide a password for service account (postgres).'

Should I leave well enough alone & is there any threat to my comp. in doing so?

Thanks.

Computers drive me insane!

Artro August 6, 2015 at 3:20 pm

how to give access to just 1 table in the database for reading

Phil October 1, 2015 at 11:47 am

These days you must also grant connect, also remember that postgres will lowercase symbols

like your table/database/user/field names, I think you can wrap them with " to keep the cases. The standard generally seems to be to use underscores instead.

```
GRANT CONNECT ON DATABASE db_name TO user_name;
```

It would not work for me without that, for years now. Also remember to connect with -h localhost, or configure your pg_hba.conf (care for potential security risks).

Prasad January 11, 2016 at 9:45 am

Nice post. Solve my purpose.

Gone through lots of posts on internet but didn't work out for me. Finally follow all mentioned steps here and it worked for me.

Wally Pitcairn July 18, 2017 at 6:28 am

This is a great tip especially to those fresh to the blogosphere. Brief but very precise information... Appreciate your sharing this one. A must read post!

Have a question? Post it on our forum!

Tagged as: [adduser command](#), [database cluster](#), [postgres adding users](#), [privileges](#), [psql command](#), [sql commands](#), [su command](#)



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