The following NEW packages will be installed:
  libllvm10 libpq5 postgresql postgresql-12 postgresql-client-12
  postgresql-client-common postgresql-common postgresql-contrib sysstat
0 upgraded, 9 newly installed, 0 to remove and 3 not upgraded.
Need to get 30.6 MB of archives.
Success. You can now start the database server using:

    pg_ctlcluster 12 main start

Ver Cluster Port Status Owner   Data directory   Log file
12 main   5432 down   postgres /var/lib/postgresql/12/-main /var/log/postgresql/postgresql-12-main.log
==

NAME
       createuser - define a new PostgreSQL user account

SYNOPSIS
       createuser [connection-option...] [option...] [username]

DESCRIPTION
       createuser creates a new PostgreSQL user (or more precisely, a role).
       Only superusers and users with CREATEROLE privilege can create new
       users, so createuser must be invoked by someone who can connect as a
       superuser or a user with CREATEROLE privilege.

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If you are logged in as the postgres account, you can create a new user by typing:

postgres@server: ~$ createuser --interactive
If, instead, you prefer to use sudo for each command without switching from your normal account, type:

$ sudo -u postgres createuser --interactive

Output
Enter name of role to add: bhau
Shall the new role be a superuser? (y/n) y
==
bhodhi@bhodhi-Lenovo-S20-30:~$ sudo adduser bhau
Adding user `bhau' ...
Adding new group `bhau' (1001) ...
Adding new user `bhau' (1001) with group `bhau' ...

```
Creating home directory `/home/bhau' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for bhau
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
```

===

```
postgres=# \l
                            List of databases
    Name     |   Owner   | Encoding | Collate | Ctype |
Access privileges
-----------+-----------+----------+---------+-------
+-----------------------
 postgres   | postgres  | UTF8     | en_IN   | en_IN |
 template0  | postgres  | UTF8     | en_IN   | en_IN | =c/-
postgres            +
            |           |          |         |       |
postgres=CTc/postgres
 template1  | postgres  | UTF8     | en_IN   | en_IN | =c/-
postgres            +
            |           |          |         |       |
postgres=CTc/postgres
```

===
```
postgres=# \c exampledb;

postgres=# \dt or \d
```

The "\dt" command retrieves the list of all the tables/-
relations available in the selected database, i.e.,
"example".

```
postgres=# \q to quit
```
===
```
bhodhi@bhodhi-Lenovo-S20-30:~$ sudo -i -u bhau
bhau@bhodhi-Lenovo-S20-30:~$ psql
psql: error: FATAL:  database "bhau" does not exist
bhau@bhodhi-Lenovo-S20-30:~$ createdb bhau
bhau@bhodhi-Lenovo-S20-30:~$ psql
psql (12.15 (Ubuntu 12.15-0ubuntu0.20.04.1))
Type "help" for help.

bhau=# \q
```

```
bhau@bhodhi-Lenovo-S20-30:~$ psql -d postgres
psql (12.15 (Ubuntu 12.15-0ubuntu0.20.04.1))
Type "help" for help.

postgres=# \l
                          List of databases
    Name    |  Owner   | Encoding | Collate | Ctype |
Access privileges
-----------+----------+----------+---------+-------
+----------------------
 bhau      | bhau     | UTF8     | en_IN   | en_IN |
 postgres  | postgres | UTF8     | en_IN   | en_IN |
 template0 | postgres | UTF8     | en_IN   | en_IN | =c/-
postgres          +
           |          |          |         |       |
postgres=CTc/postgres
 template1 | postgres | UTF8     | en_IN   | en_IN | =c/-
postgres          +
           |          |          |         |       |
postgres=CTc/postgres
(4 rows)
```

==
default authentication method will either be ident or peer.

ident authentication uses the operating system's
identification server running at TCP port 113 to verify the
user's credentials.

peer authentication on the other hand, is used for local
connections and verifies that the logged in username of the
operating system matches the username for the Postgres
database.

For most systems, the default Postgres user is postgres and
a password is not required for authentication. Thus, to add
a password, we must first login and connect as the postgres
user.

$ sudo -u postgres psql
If you successfully connected and are viewing the psql
prompt, jump down to the Changing the Password section.

If you received an error stating that the database
"postgres" doesn't exist, try connecting to the template1
database instead and if successful, continue to Changing
the Password.

$ sudo -u postgres psql template1

If you receive an authentication error when attempting to
connect to the psql client, you may need to alter the

Postgres authentication config file (pg_hfa.conf).

Open the config file, typically located at /etc/postgresql/-#.#/main/pg_hba.conf, where #.# is the Postgres version you are using:

```
$ sudo nano /etc/postgresql/9.3/main/pg_hba.conf
```
The auth config file is a list of authentication rules. Scroll down the file until you locate the first line displaying the postgres user in the third column (if such a line exists). Uncomment the line if necessary (remove the semicolon), or otherwise if the line is missing entirely, add the following line to the top of the file and save your changes:

```
local all postgres peer
```
This authentication rule simply tells Postgres that for local connections established to all databases for the user postgres, authenticate using the peer protocol.

Changing the Password
With a connection now established to Postgres at the psql prompt, issue the ALTER USER command to change the password for the postgres user:

```
postgres=# ALTER USER postgres PASSWORD 'myPassword';
ALTER ROLE
```
If successful, Postgres will output a confirmation of ALTER ROLE as seen above.

Finally, exit the psql client by using the \q command.

```
postgres=# \q
```
You're all done. The default postgres user now has a password associated with the account for use in your other applications.

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