

## Setting up PostgreSQL on ktpg.vssh.net

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To simplify things, we set up ssh keys such that logging into *ktpg.vssh.net* does not need password. Since the private and public keys are already generated with *ssh-keygen*, we only need to copy the public key to *ktpg*:

```
ssh-copy-id -i ~/.ssh/id_rsa.pub ktpg.vssh.net
```

Now we can access *ktpg* simply with

```
ssh ktpg.vssh.net
```

## Installing PostgreSQL

For details, see <http://www.postgresql.org/download/linux/ubuntu/>

Find out the PostgreSQL version included in your version of Ubuntu by issuing

```
apt-cache search postgresql | less
```

If this is not the version you want, issue

```
sudo su -c 'echo "deb http://apt.postgresql.org/pub/repos/apt/ trusty-pgdg main" >
/etc/apt/sources.list.d/pgdg.list'
```

Then import the repository key

```
wget --quiet -O - https://www.postgresql.org/media/keys/ACCC4CF8.asc | sudo apt-key add -
sudo apt-get update
```

After this, or if the default PostgreSQL version was the one that you wanted, install it by issuing

```
sudo apt-get install postgresql-9.4
```

or

```
# default version
sudo apt-get install postgresql
```

The most important PostgreSQL files and directories are

```
/etc/postgresql/9.4/
/etc/postgresql-common/
/usr/lib/postgresql/9.4/
/usr/share/postgresql/9.4/
/usr/share/postgresql-common/
/usr/share/doc/postgresql/
```

## Entering PostgreSQL shell

```
sudo su - postgres
psql
```

First we set a password for the *postgres* account for doing remote backups. (For now, the password will be same as *ktp* system users password.)

```
postgres=# \password
Enter new password:
Enter it again:
```

Then, create a *ktp* user and default database

```
CREATE USER ktp SUPERUSER PASSWORD 'write pwd here';
CREATE DATABASE ktp WITH OWNER = ktp;
```

Now we access PostgreSQL with

```
psql -d postgres -- connect to database postgres
```

To simplify privilege management, revoke all rights from the public role in the new database, so that they cannot be inherited by new roles that will be created in the future

```
REVOKE ALL ON DATABASE ktp FROM PUBLIC;
\c ktp -- connect to database ktp
REVOKE ALL ON SCHEMA public FROM PUBLIC;
```

### Enable remote connections

Become root again and issue

```
sudo vi /etc/postgresql/9.4/main/postgresql.conf
```

and change the line

```
#listen_addresses = 'localhost'
```

to

```
listen_addresses = '*'
```

and also change the line:

```
#password_encryption = on
```

to

```
password_encryption = on
```

Then, edit the host-based authentication file with

```
sudo vi /etc/postgresql/9.4/main/pg_hba.conf
```

and add the lines

```
# Connections for a range of PCs on the vsshp subnet
host    all             all             10.150.0.0/16      md5
host    all             all             10.145.0.0/16      md5
```

and restart the service with

```
sudo service postgresql restart
```

to allow access from the vsshp network.

### Install PgAdmin III

Install PgAdmin III (e.g. with `sudo apt-get install pgadmin3`) on the client machine and enable the Extension pack on the server:

```
sudo -u postgres psql
\c ktp
CREATE EXTENSION adminpack;
```

To see a list of installed extensions, issue

```
SELECT * FROM pg_extension;
```

Remember that the extensions are installed per database.