**Postgresql Source Installation 16.2**

1. **Download the source file:**

<https://www.postgresql.org/ftp/source/>

1. **Prerequisites:**

yum install readline-devel

yum install -y zlib-devel

yum install -y install gcc

yum install -y make

yum install -y libicu-devel

Debian: Ubuntu

gcc ,build-essential, zlib1g-dev, libreadline6-dev, libicu-dev, pkg-config

1. **Extract tar file and check configure:**

tar -xvf postgresql-16.2.tar.gz

cd postgresql-16.2

./configure –help

1. **Create postgres user and required directories:**

useradd -d /home/postgres/ postgres

passwd postgres

id postgres

mkdir -p /u01/app/16.2/init

mkdir -p /u02/app/16.2/data

mkdir -p /u03/app/16.2/wal\_files

mkdir -p /u04/app/16.2/archive\_logs

mkdir -p /u05/app/16.2/temp\_files

1. **Configure PostgreSQL:**

cd postgresql-16.2

. /configure --prefix=/u01/app/16.2/init

1. **Build postgreSQL using make command:**

cd postgresql-16.2

make

or

make world (everything including contrib, documentation and man pages)

or

make world-bin (everything, except documentation).

1. **Install postgreSQL using make install command:**

make install

or

make install-world

or

make install-world-bin

1. **Build contrib module:**

cd contrib

make

1. **Install contrib module:**

make install

1. **) Check Bin Folder pg\_config for directory structure:**

cd /u01/app/16.2/init/bin

./pg\_config

**11) Change ownership from root to postgres:**

chown -R postgres:postgres /u01/app/16.2/init

chown -R postgres:postgres /u02/app/16.2/data

chown -R postgres:postgres /u03/app/16.2/wal\_files

chown -R postgres:postgres /u04/app/16.2/archive\_logs

chown -R postgres:postgres /u05/app/16.2/temp\_files

**12) Initialize postgreSQL data directory:**

sudo su - postgres

cd /u01/app/16.2/init/bin

./initdb -D /u02/app/16.2/data

**13) Check the content of DATA Directory and Start Database:**

cd /u02/app/16.2/data

ls -ltr

cd /u01/app/16.2/init/bin

./ pg\_ctl -D /u02/app/16.2/data start

**14) Set Environment Variables and Connect to psql and check.**

export LD\_LIBRARY\_PATH=/u01/app/16.2/init/lib:$LD\_LIBRARY\_PATH

export PATH=/u01/app/16.2/init/bin:$PATH

postgres# psql