**PostgresSQL DB installation on docker base image Alpine 3.18**

#log in to the container

docker exec -it <containerid> sh

#change directory to /opt/

cd /opt/

mkdir postgresql

cd /opt/postgresql/

#now create a "Postgres" user and assign root privilages to him

adduser -h /opt/postgresql/ <user\_name>

#setpassword to "Postgres" user

passwd <user\_name>

apk add sudo

visudo

#add "PostgresSQL" user to roor privilege's as shown below

#switch user to "Postgres"

su postgres

#download PostgreSql repo and install

apk add --no-cache postgresql

apk search postgresql

apk add --no-cache postgresql15=15.6-r0

apk add --no-cache postgresql15-contrib=15.6-r0  
apk add --no-cache postgresql15-contrib-jit=15.6-r0

#install Postgresql client if needed   
apk add --no-cache postgresql15-client=15.6-r0

#initialize database

initdb -D /var/lib/postgresql/data

#now two changes need to be made on PostgreSQL.config and pg\_hba.conig files

**/var/lib/postgresql/data/postgresql.conf**

listen\_addresses = '\*'          # what IP address(es) to listen on;

port = 5432                             # (change requires restart)

max\_connections = 1000                  # (change requires restart)

max\_prepared\_transactions = 100         # zero disables the feature  
                                                             # (change requires restart)

**/var/lib/postgresql/data/pg\_hba.conf**

#make sure you have given permission to user "Postgres" on below folder path to start/restart "PostgresSQL" service

chown postgres:postgres /run/postgresql

#restart PostgresSQL service

pg\_ctl restart -D /var/lib/postgresql/data/

#validate the connectivity to psqluser database if needed  
psql -U your\_user -d your\_database -h localhost -p 5432 -W

#to quit from psql

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#to quit from "postgres" user

exit

#now enter in to "psql" command line and execute below queries

CREATE USER psqluser WITH PASSWORD 'psqluser';  
CREATE DATABASE psqluser;  
GRANT ALL PRIVILEGES ON DATABASE your\_database TO your\_user;

ALTER USER your\_user WITH SUPERUSER CREATEDB CREATEROLE REPLICATION BYPASSRLS;

CREATE EXTENSION extension\_name;

#extenstion name tablefunc

#to list the existing database  
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#to list the existing users

\du

#list installed extensions

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