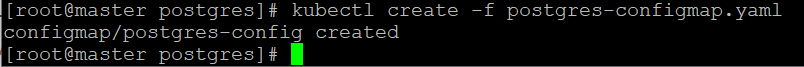
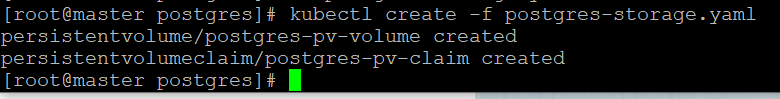
1.Postgres Deployment

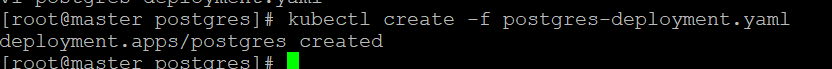
1.1 Create ConfigMap for Postgres



1.2 Create PersistentColume (5Gi)



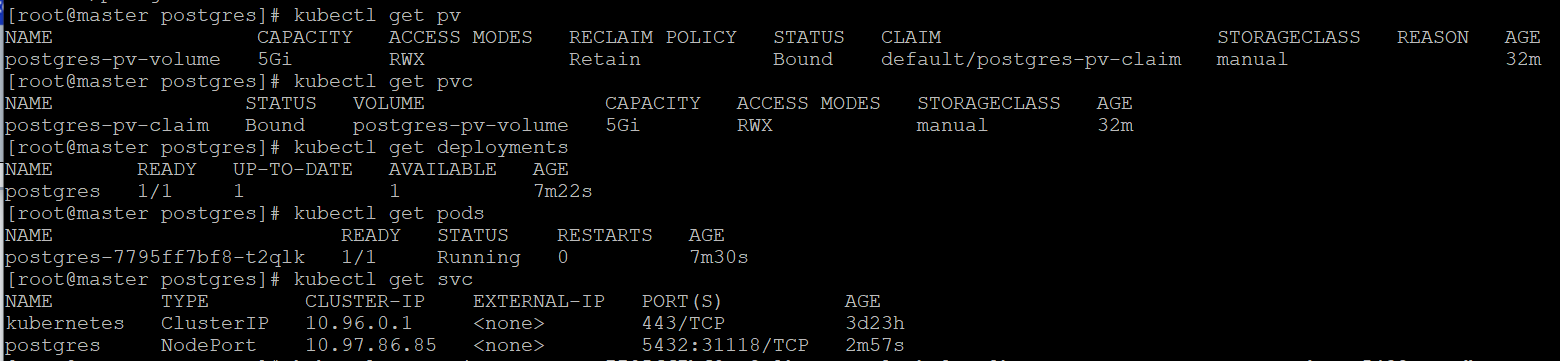
1.3 Create Deployment (1 replicas)

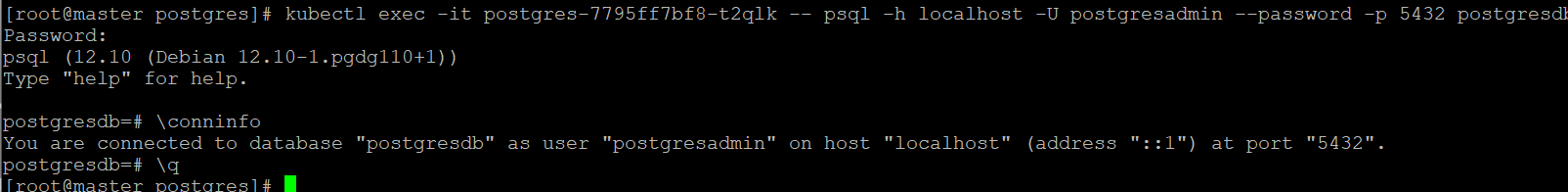


1.4 Create Service



1.5 Checking

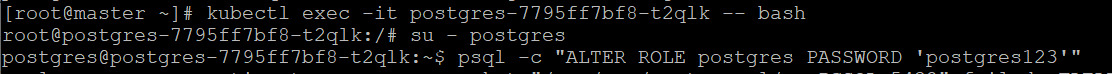




1.6 If we assume that it was the master Postgres server, then for the Slave Postgres we need to do the same

2.Replication of Postgres DataBase

2.1 Set a password for the postgres user



2.2 We need to make changes to pg\_hba.conf and postgresql.conf files. Because postgres works within a pod, we can't do it directly. There are several ways to do this - it takes extra time for me to implement this. In theory:

For pg\_hba.conf – find string «If you want to allow non-local connections, you need to add more» and add:

host replication postgres REPLICA\_INTERNAL\_IP/32 md5

(We allow the postgres user to connect to this server from Replica)

Changes for postgres.conf:

listen\_addresses = 'localhost, MASTER\_INTERNAL\_IP'

wal\_level = hot\_standby

archive\_mode = on

archive\_command = 'cd .'

max\_wal\_senders = 8

hot\_standby = on

2.3 Restart postgres

service postgresql restart

2.4 Changes for Replica server:

service postgresql stop

pg\_hba.conf - host replication postgres MASTER\_INTERNAL\_IP/32 md5

postgresql.conf:

listen\_addresses = 'localhost, REPLICA\_INTERNAL\_IP'

wal\_level = hot\_standby

archive\_mode = on

archive\_command = 'cd .'

max\_wal\_senders = 8

hot\_standby = on

2.5 Create new DB for Replica:

su – postgres

cd DBDIR (Directory with DB)

rm -rf main; mkdir main; chmod go-rwx main

pg\_basebackup -P -R -X stream -c fast -h MASTER\_INTERNAL\_IP -U postgres -D ./main (DB from master)

exit

service postgresql start

2.6 Check replication:

On Master side we will create table and will add string to DB:

su - postgres

psql -c "CREATE TABLE test\_table (id INT, name TEXT);"

psql -c "INSERT INTO test\_table (id, name) VALUES (1, 'test');"

On Slave side we have to see it.

su - postgres

psql -c "SELECT \* FROM test\_table;"

But DB on the Slave side must be ReqdOnly – if we try to create table we will get error.

psql -c "CREATE TABLE test\_table2 (id INT, name TEXT);"

We have to see error message