## Estudiantes:

| | |
|---|---|
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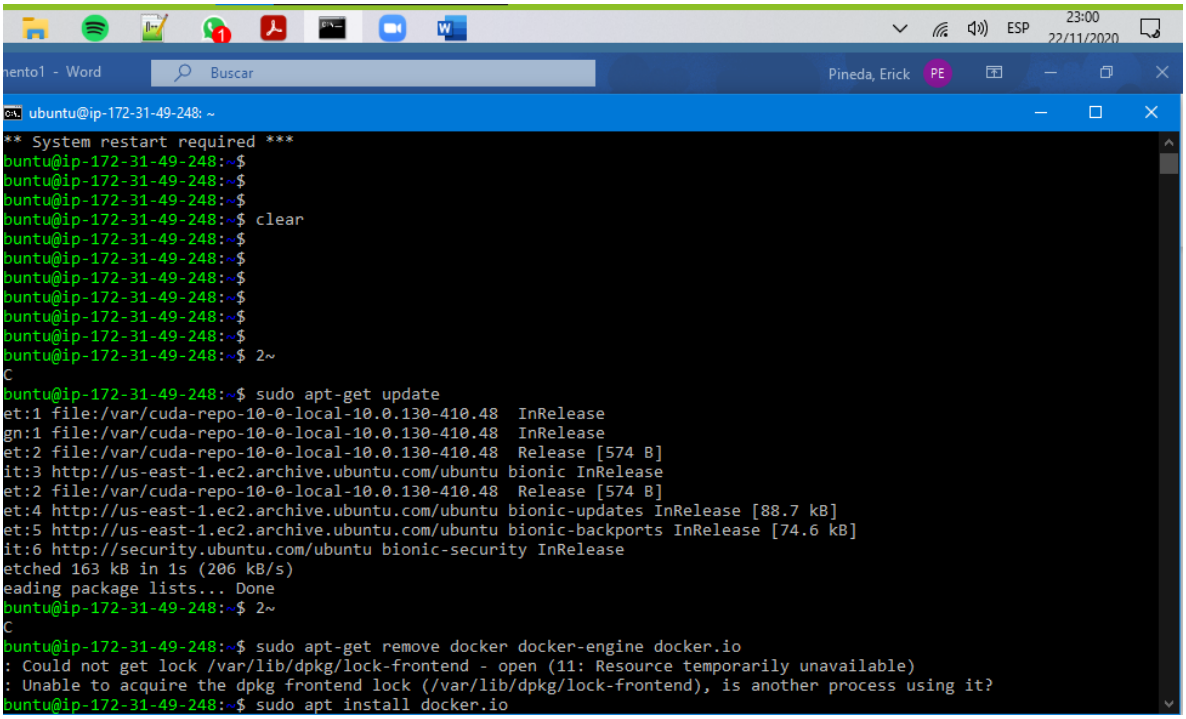
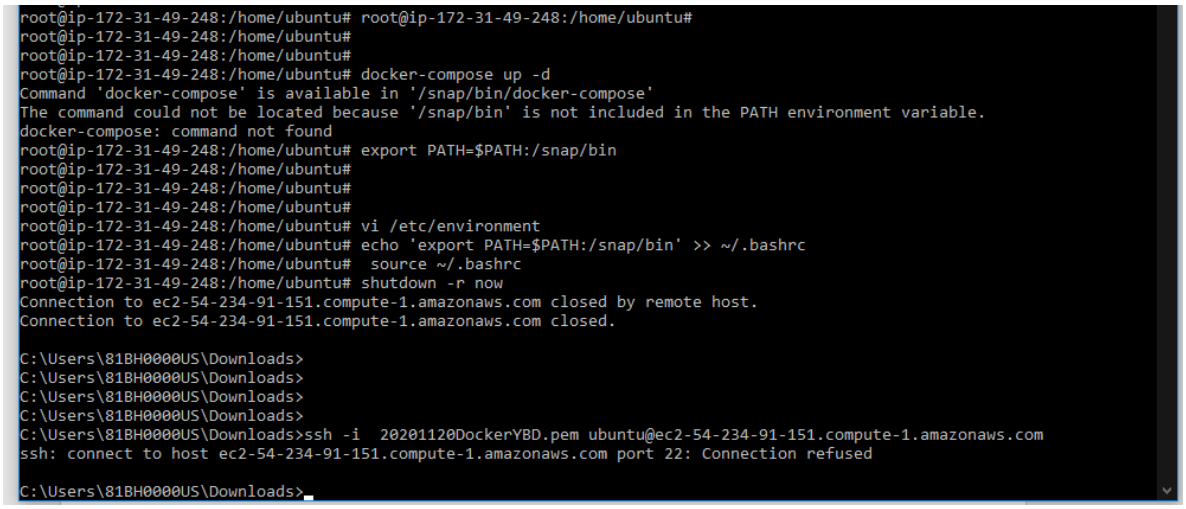
# Parcial parte 1

Instalando Docker




Algunos errores encontrados



```
ubuntu@ip-172-31-49-248:~$ ^C
ubuntu@ip-172-31-49-248:~$ docker-compose up -d
ERROR:
        Can't find a suitable configuration file in this directory or any
        parent. Are you in the right directory?

        Supported filenames: docker-compose.yml, docker-compose.yaml

ubuntu@ip-172-31-49-248:~$
ubuntu@ip-172-31-49-248:~$
ubuntu@ip-172-31-49-248:~$
ubuntu@ip-172-31-49-248:~$
```

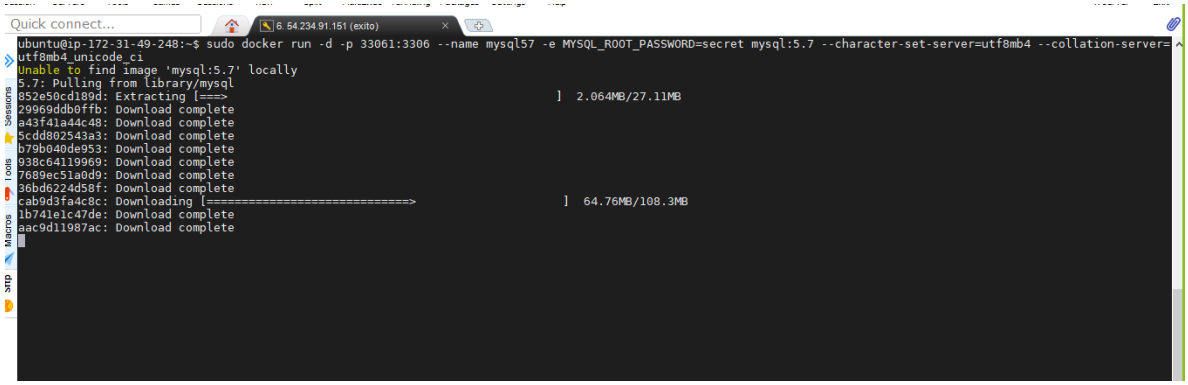
Comprobación que está corriendo Docker

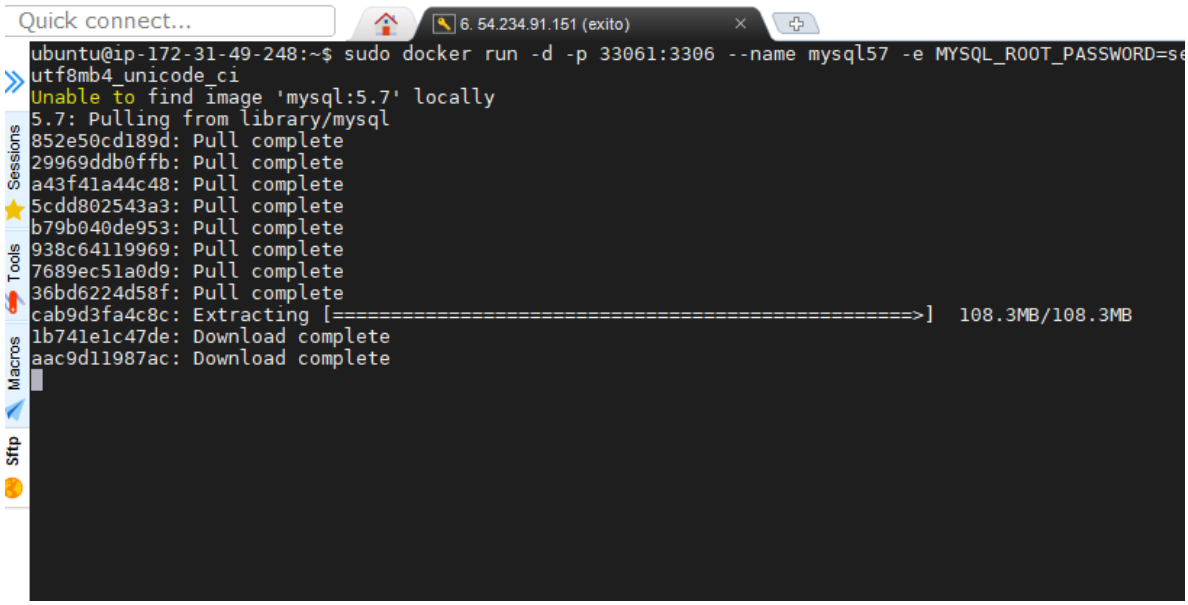
```
ubuntu@ip-172-31-49-248:~$
ubuntu@ip-172-31-49-248:~$ sudo docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS               NAMES
ubuntu@ip-172-31-49-248:~$
ubuntu@ip-172-31-49-248:~$ date
Mon Nov 23 05:25:02 UTC 2020
ubuntu@ip-172-31-49-248:~$
ubuntu@ip-172-31-49-248:~$
ubuntu@ip-172-31-49-248:~$ ifconfig -a
docker0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
        inet 172.17.0.1  netmask 255.255.0.0  broadcast 172.17.255.255
        ether 02:42:e5:d2:35:c0  txqueuelen 0  (Ethernet)
        RX packets 0  bytes 0 (0.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 0  bytes 0 (0.0 B)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 9001
        inet 172.31.49.248  netmask 255.255.240.0  broadcast 172.31.63.255
        inet6 fe80::497:64ff:fef5:a183  prefixlen 64  scopeid 0x20<link>
        ether 06:97:64:f5:a1:83  txqueuelen 1000  (Ethernet)
        RX packets 666  bytes 70120 (70.1 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 734  bytes 92671 (92.6 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 128  bytes 10020 (10.0 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 128  bytes 10020 (10.0 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

ubuntu@ip-172-31-49-248:~$
ubuntu@ip-172-31-49-248:~$
```

1. Haciendo uso de lo aprendido con docker, configure una base de datos de su preferencia, puede ser mysql, postgresql, o cualquier otra que le facilite su trabajo.

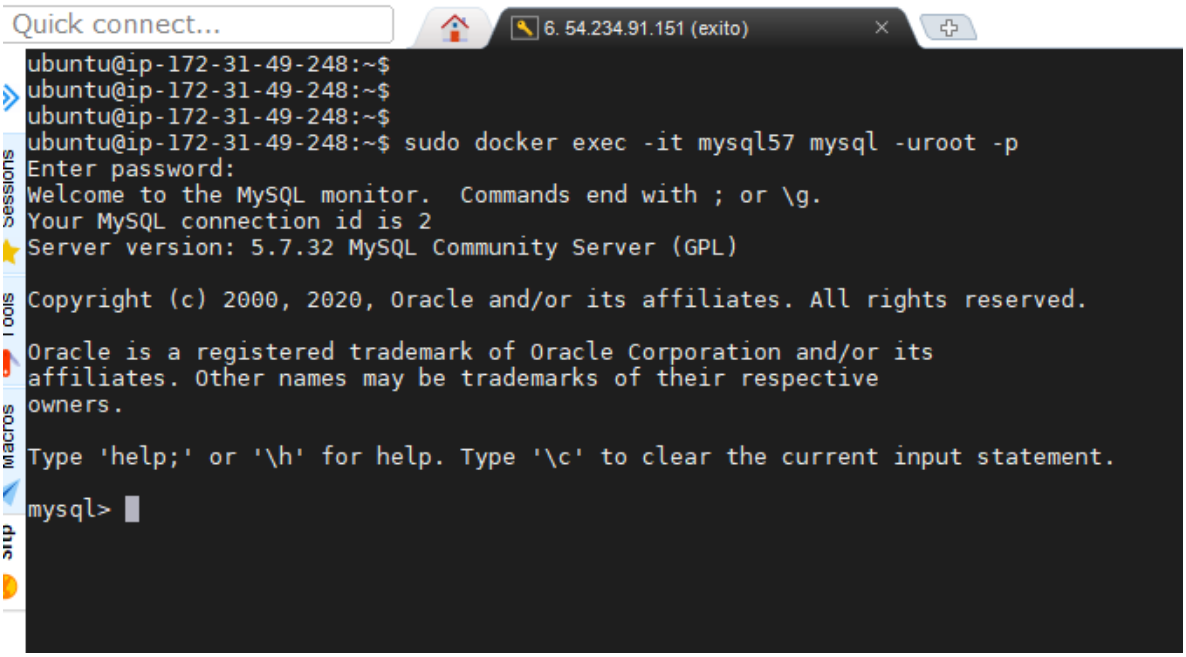
Intalando Mysql en Docker

$ docker run -d -p 33061:3306 --name mysql57 -e MYSQL_ROOT_PASSWORD=secret mysql:5.7 --character-set-server=utf8mb4 --collation-server=utf8mb4_unicode_ci

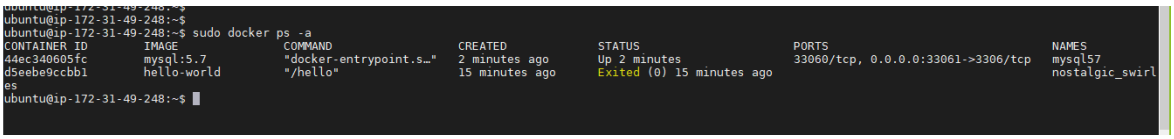


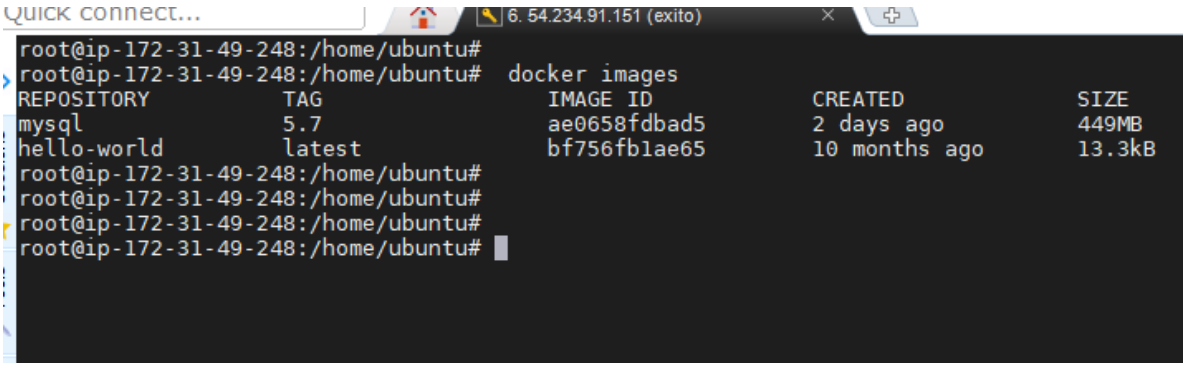
Acceso a la consola de Mysql desde Docker




Procesos Docker




<u>Imágenes actuales de Docker:</u>



2. Instale y configure RStudio en su versión server, en un contenedor de docker, el cual debe tener conexión con la base de datos que acaba de instalar.

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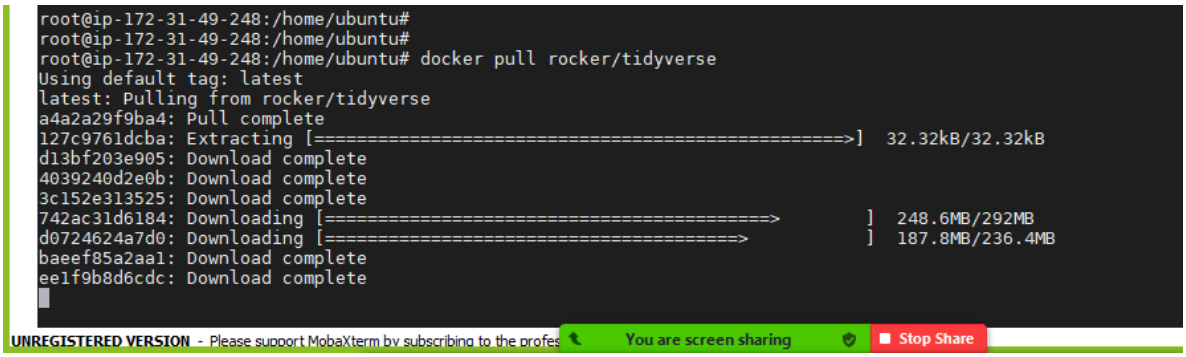
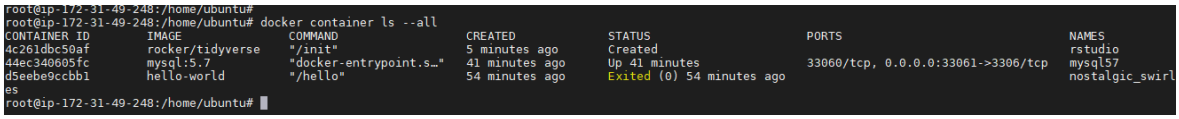
Instalando R studio:

$ docker pull rocker/tidyverse

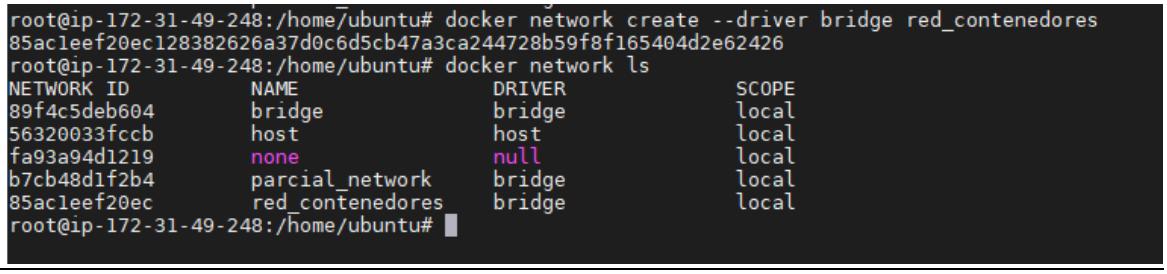



Lista de contenedores:




| Lista de contenedores | |
|---|---|
| **4c261dbc50af** | rstudio |
| **44ec340605fc** | mysql57 |

<u>Creación de red de contenedores</u>

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Volumen para el almacenamiento de base de datos:

$ *docker volume create* ***vol_bd_mysql***

```
root@ip-172-31-49-248:/home/ubuntu#
root@ip-172-31-49-248:/home/ubuntu# docker volume create vol_bd_mysql
vol_bd_mysql
root@ip-172-31-49-248:/home/ubuntu#
root@ip-172-31-49-248:/home/ubuntu#
root@ip-172-31-49-248:/home/ubuntu# docker volume ls
DRIVER              VOLUME NAME
local               781962b9b4a3705c210caadec95fdbd65cfe1e9eff6b3bc0befe5d209f8b6d3d
local               vol_bd_mysql
root@ip-172-31-49-248:/home/ubuntu#
root@ip-172-31-49-248:/home/ubuntu#
root@ip-172-31-49-248:/home/ubuntu#
```

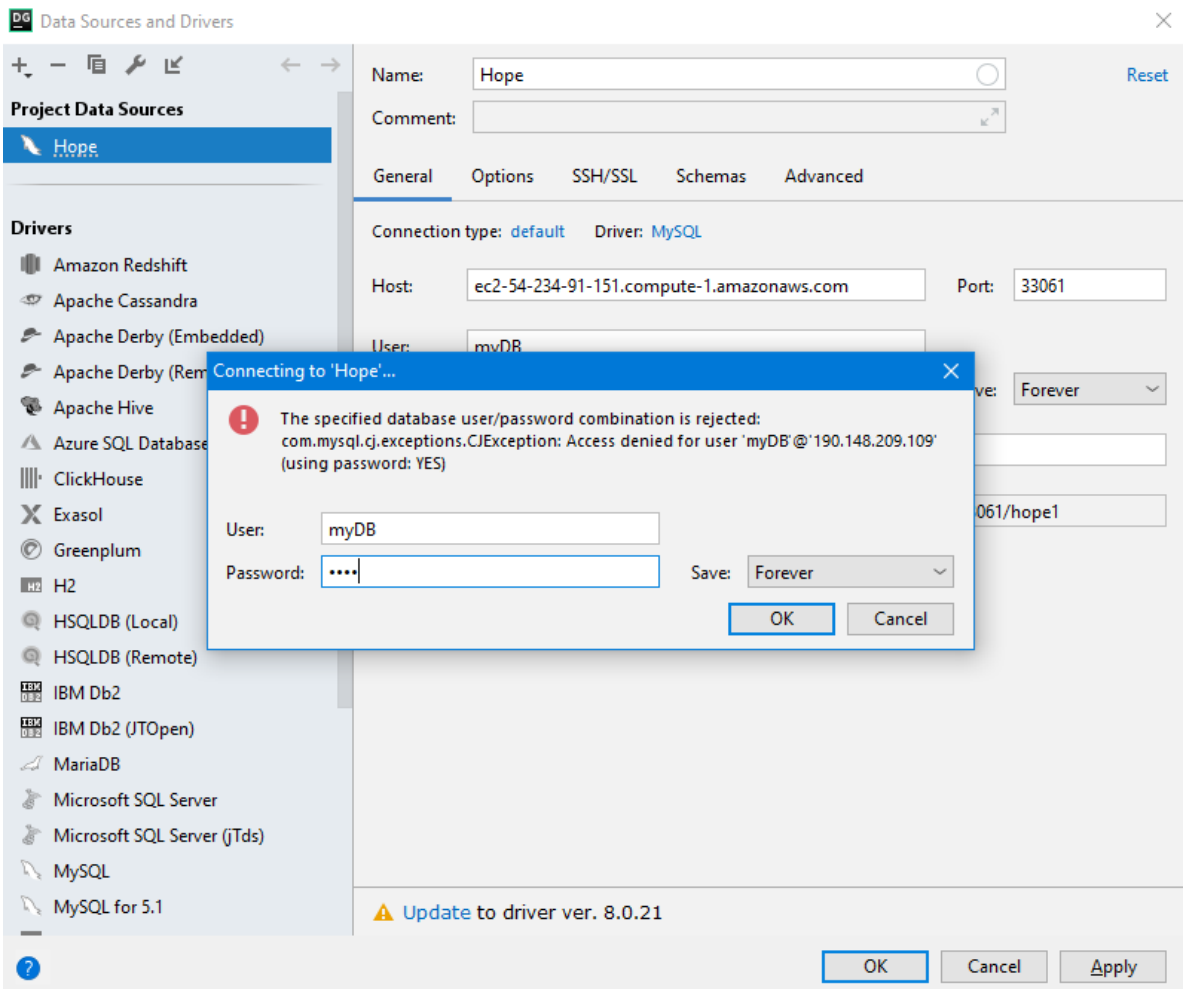
Verificando si el puerto esta disponible. Como estaba corriendo, fue necesario detener el servicio de R local.

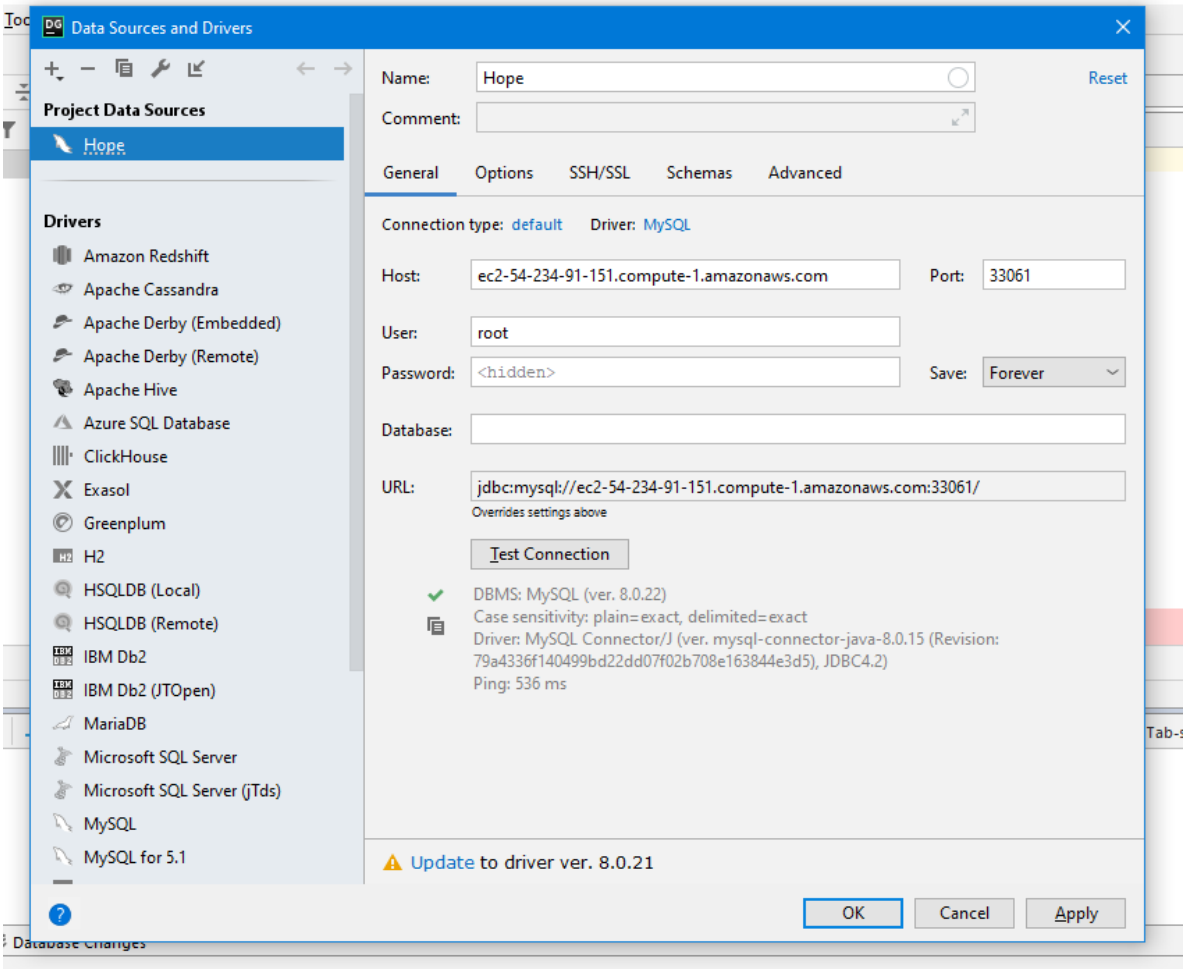
```
: command not found
root@ip-172-31-49-248:/home/ubuntu#
root@ip-172-31-49-248:/home/ubuntu# netstat -an| grep 8787
root@ip-172-31-49-248:/home/ubuntu#
root@ip-172-31-49-248:/home/ubuntu#
root@ip-172-31-49-248:/home/ubuntu# docker run --network red_contenedores -p 8787:8787 -e USER=1234 -e PASSWORD=1234 rocker/tidyverse
[s6-init] making user provided files available at /var/run/s6/etc...exited 0.
[s6-init] ensuring user provided files have correct perms...exited 0.
[fix-attrs.d] applying ownership & permissions fixes...
[fix-attrs.d] done.
[cont-init.d] executing container initialization scripts...
[cont-init.d] userconf: executing...
USER is now 1234
[cont-init.d] userconf: exited 0.
[cont-init.d] done.
[services.d] starting services
[services.d] done.
```

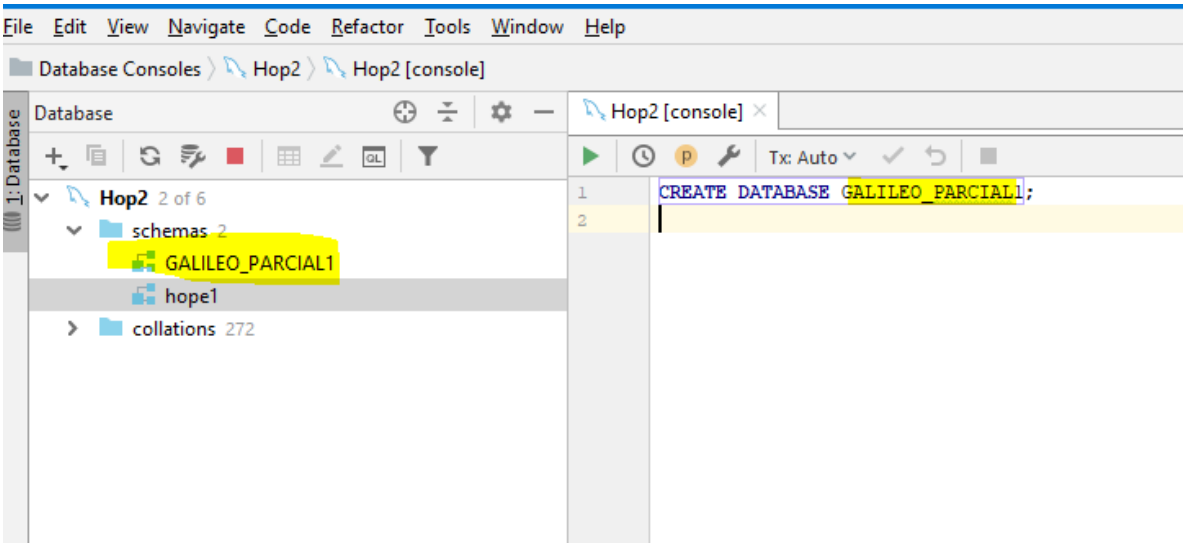
Ambos nodos funcionando

```
ubuntu@ip-172-31-49-248:~$ sudo docker ps
CONTAINER ID        IMAGE               COMMAND                  CREATED             STATUS              PORTS                                       NAMES
fccf31528be2        rocker/tidyverse    "/init"                  28 seconds ago      Up 25 seconds       0.0.0.0:1919->1919/tcp, 8787/tcp            exciting_jones
7fae59d225e3        mysql               "docker-entrypoint.s…"   3 minutes ago       Up 3 minutes        33060/tcp, 0.0.0.0:33061->3306/tcp          myDB
ubuntu@ip-172-31-49-248:~$
ubuntu@ip-172-31-49-248:~$
ubuntu@ip-172-31-49-248:~$
ubuntu@ip-172-31-49-248:~$
```

Conexión desde internet:


Data Sources and Drivers
Project Data Sources
Hope
Drivers
Amazon Redshift
Apache Cassandra
Apache Derby (Embedded)
Apache Derby (Rem
Apache Hive
Azure SQL Database
ClickHouse
Exasol
Greenplum
H2
HSQLDB (Local)
HSQLDB (Remote)
IBM Db2
IBM Db2 (JTOpen)
MariaDB
Microsoft SQL Server
Microsoft SQL Server (jTds)
MySQL
MySQL for 5.1
Name: Hope
Reset
Comment:
General
Options
SSH/SSL
Schemas
Advanced
Connection type: default
Driver: MySQL
Host: ec2-54-234-91-151.compute-1.amazonaws.com
Port: 33061
User: myDB
ve: Forever
061/hope1
Update to driver ver. 8.0.21
OK
Cancel
Apply
Connecting to 'Hope'...
The specified database user/password combination is rejected:
com.mysql.cj.exceptions.CJException: Access denied for user 'myDB'@'190.148.209.109'
(using password: YES)
User: myDB
Password:
Save: Forever
OK
Cancel




Creación de base de datos: