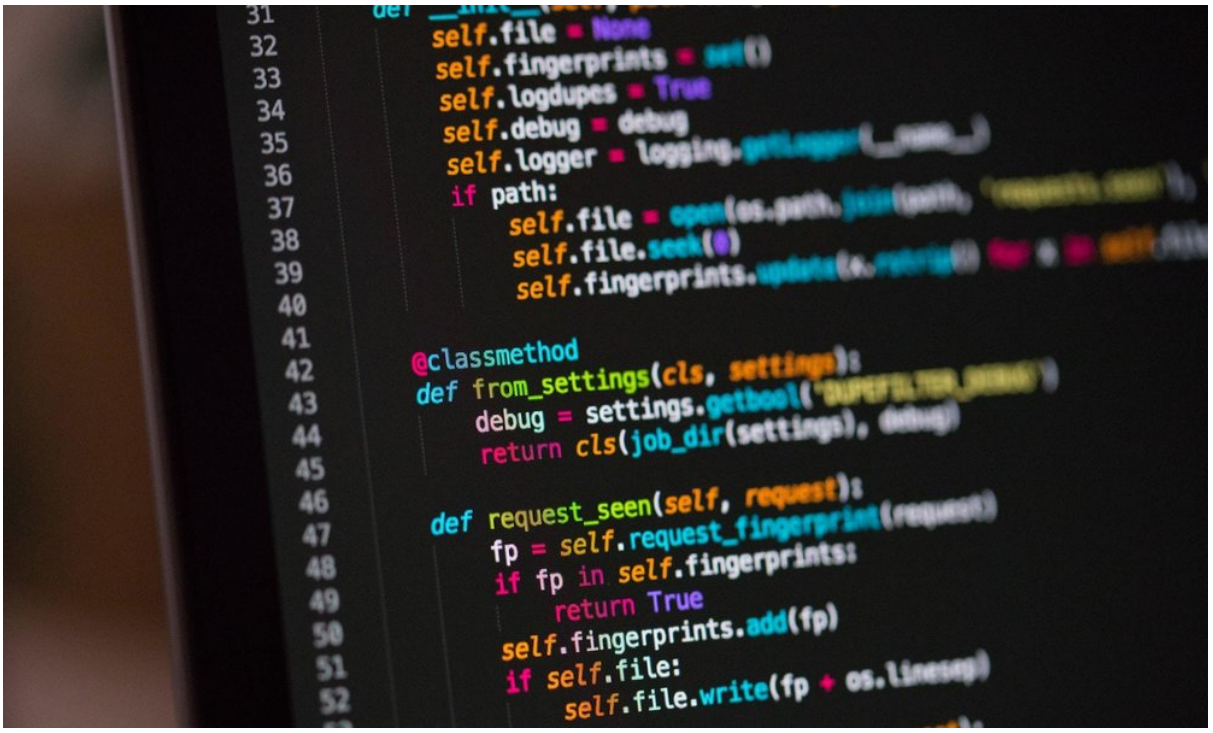
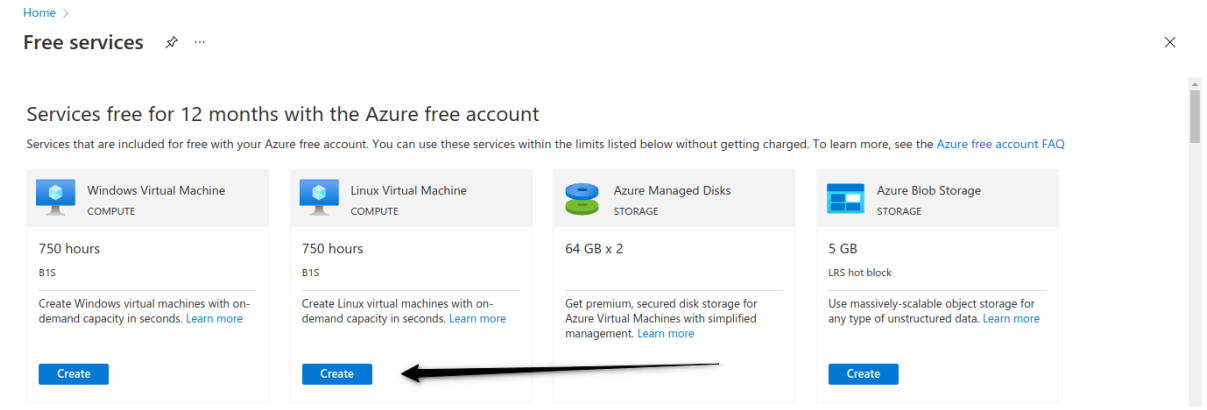
Projecte1 Yuheng Cristian Marc U



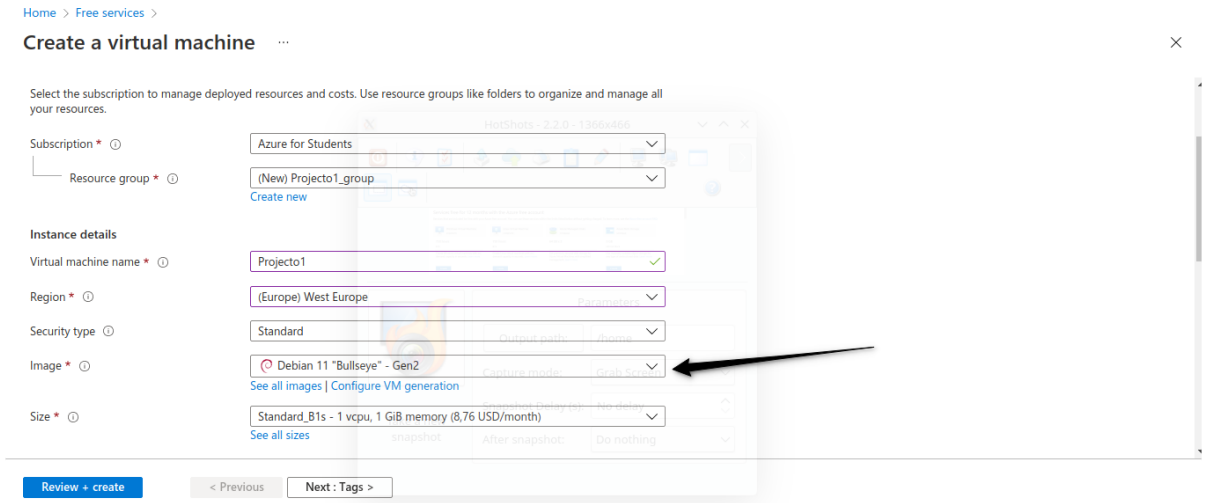
Cristian Alvarez
Yuheng Zhou
Marc Ustero
21/01/2022

M1

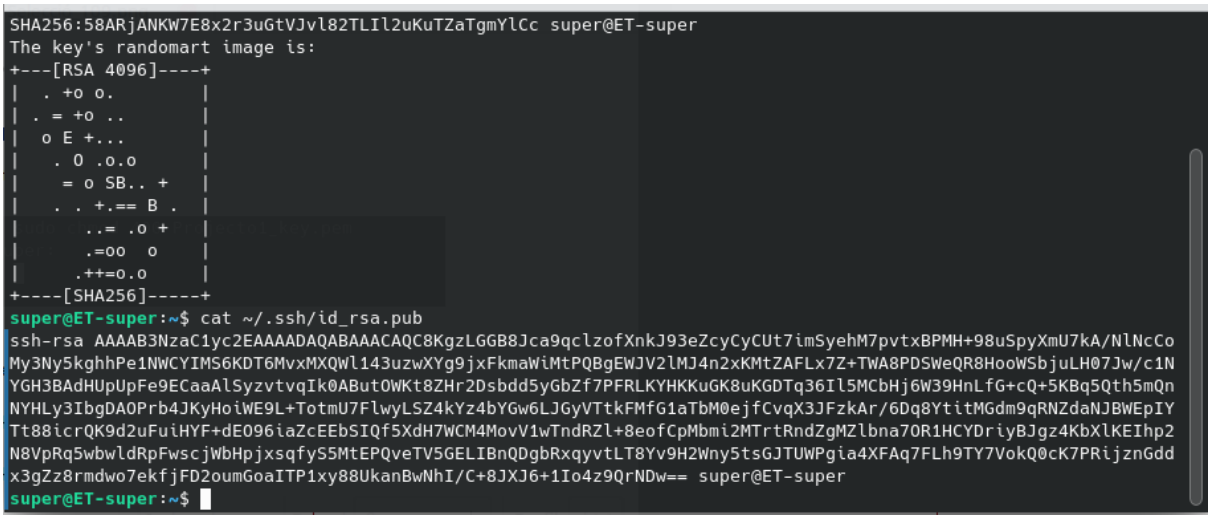
Crearem una máquina virtual amb Debian en entorn de núvol amb el azure .



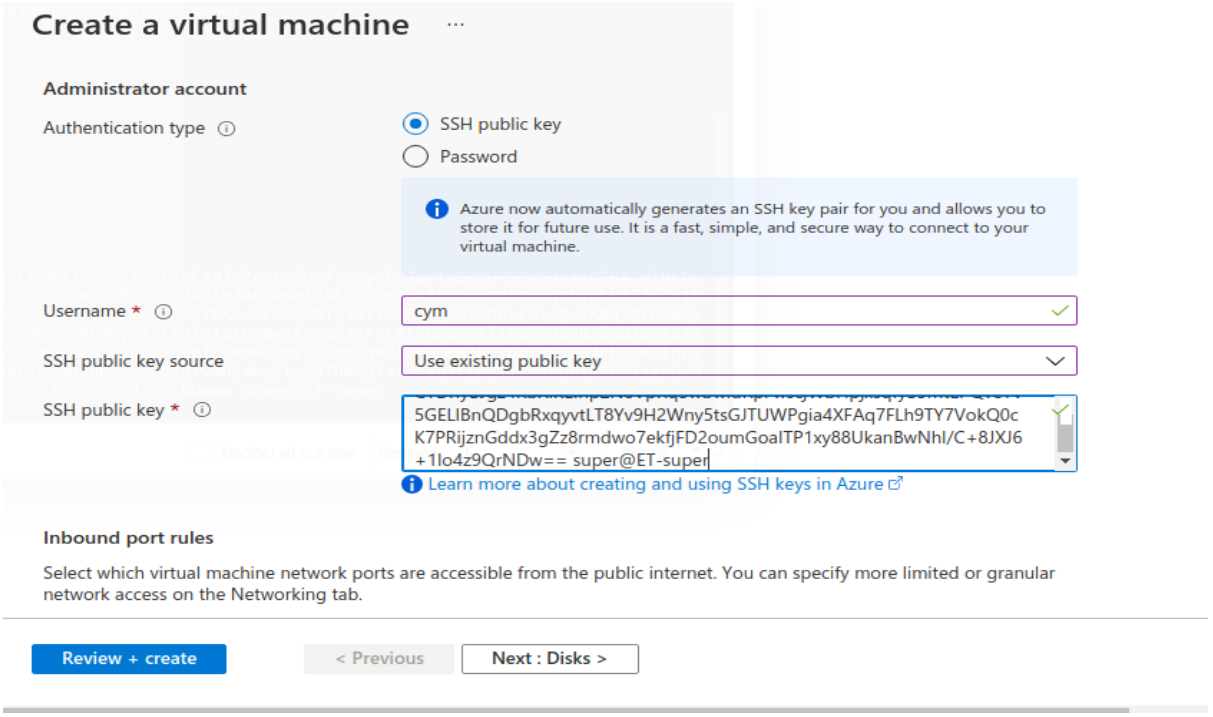
Ara posem el nom del projecte i el sistema operatiu Debian 11 Bullseye.



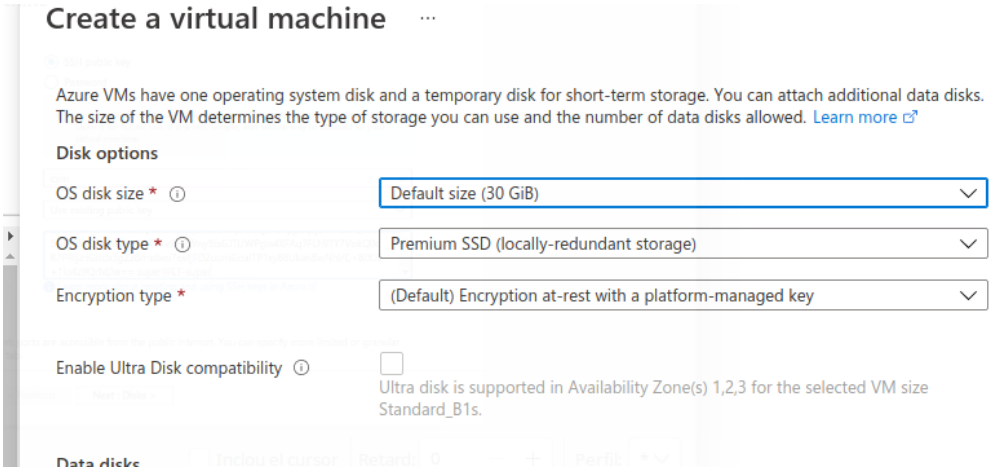
Ara generem una clau ssh amb la comanda ssh-keygen -m PEM -t rsa -b 4096.



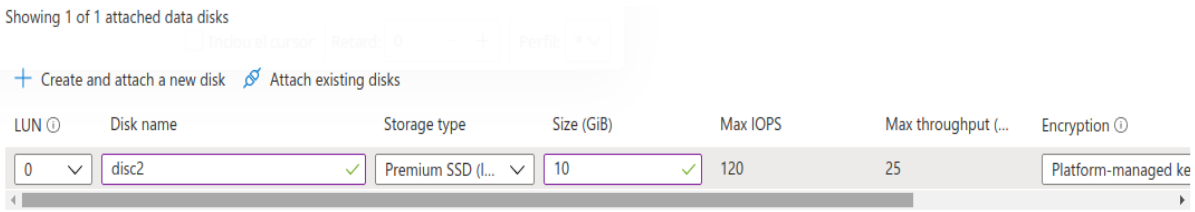
Després copiem la clau en el azure.



Ara crearem un disc dur de 30gb per al sistema operatiu.



I un altre de 10 gb per al arxius i dades dels usuaris.



Ara ens connectem a la màquina virtual amb la comanda sudo ssh -i ~/.ssh/id_rsa cym@104.214.229.220

```
super@ET-super:~/.ssh$ ssh -i ~/.ssh/id_rsa cym@104.214.229.220
The authenticity of host '104.214.229.220 (104.214.229.220)' can't be established.
ECDSA key fingerprint is SHA256:Yb4Hbbrmq58FZQPKgYS8HTHkc4pYeygL4sRSDYCfNX8.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '104.214.229.220' (ECDSA) to the list of known hosts.
Linux Projecto1-Cristian-Yuheng-Marc 5.10.0-10-cloud-amd64 #1 SMP Debian 5.10.84-1 (2021-12-08) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
cym@Projecto1-Cristian-Yuheng-Marc:~$
```

Ara instalem el mysql amb l'opció de secure installation.

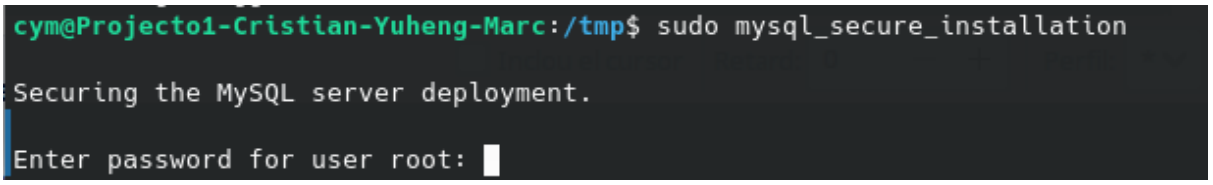
```
cym@Projecto1-Cristian-Yuheng-Marc:~$ cd /tmp/
cym@Projecto1-Cristian-Yuheng-Marc:/tmp$ wget https://dev.mysql.com/get/mysql-apt-config_0.8.10-1_all.deb
--2022-01-10 11:49:12--  https://dev.mysql.com/get/mysql-apt-config_0.8.10-1_all.deb
Resolving dev.mysql.com (dev.mysql.com)... 137.254.60.11
Connecting to dev.mysql.com (dev.mysql.com)|137.254.60.11|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://repo.mysql.com//mysql-apt-config_0.8.10-1_all.deb [following]
--2022-01-10 11:49:13--  https://repo.mysql.com//mysql-apt-config_0.8.10-1_all.deb
Resolving repo.mysql.com (repo.mysql.com)... 92.123.125.17
Connecting to repo.mysql.com (repo.mysql.com)|92.123.125.17|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 35970 (35K) [application/x-debian-package]
Saving to: 'mysql-apt-config_0.8.10-1_all.deb'

mysql-apt-config_0.8.10-1_a 100%[=====================================>]  35.13K  --.-KB/s    in 0.001s

2022-01-10 11:49:13 (50.4 MB/s) - 'mysql-apt-config_0.8.10-1_all.deb' saved [35970/35970]

cym@Projecto1-Cristian-Yuheng-Marc:/tmp$
```

```
┤ Configuring mysql-apt-config ├
MySQL APT Repo features MySQL Server along with a variety of MySQL components. You may select the
appropriate product to choose the version that you wish to receive.

Once you are satisfied with the configuration then select last option 'Ok' to save the configuration,
then run 'apt-get update' to load package list. Advanced users can always change the configurations
later, depending on their own needs.

Which MySQL product do you wish to configure?

                        MySQL Server & Cluster (Currently selected: mysql-8.0)
                        MySQL Tools & Connectors (Currently selected: Enabled)
                        MySQL Preview Packages (Currently selected: Disabled)
                        Ok

                                        <Ok>
```

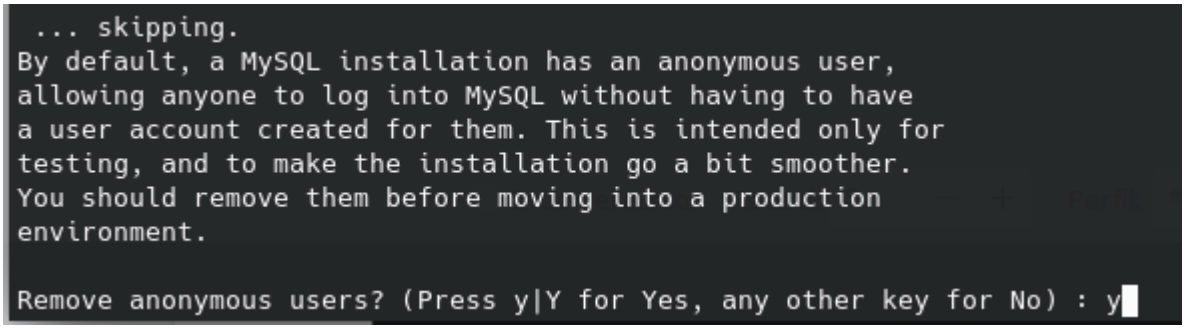
Li donem a ok.

Posem una contrasnya.

Ara utilitzem el mysql-secure installation.



Per a eliminar el usuaris anonims tenim que posar que yes.



I el mateix amb la base de dades de test i posar el establir l'usuari root amb contrasenya root.

```
Remove anonymous users? (Press y|Y for Yes, any other key for No) : y
Success.


Normally, root should only be allowed to connect from
'localhost'. This ensures that someone cannot guess at
the root password from the network.

Disallow root login remotely? (Press y|Y for Yes, any other key for No) : y
Success.

By default, MySQL comes with a database named 'test' that
anyone can access. This is also intended only for testing,
and should be removed before moving into a production
environment.


Remove test database and access to it? (Press y|Y for Yes, any other key for No) : y
```

Ara creem l'usuari administrador per a accedir.

```
mysql> create user cym identified by 'Admin810';
Query OK, 0 rows affected (0.03 sec)

mysql> grant all privileges on *.* to cym with grant option;
Query OK, 0 rows affected (0.01 sec)

mysql>
```

```
mysql> flush privileges;
Query OK, 0 rows affected (0.00 sec)

mysql> exit;
Bye
cym@Projecto1-Cristian-Yuheng-Marc:/tmp$
```

Per a conectarnos a mysql tenim que tenir obert el port 3306.

```
cym@Projecto1-Cristian-Yuheng-Marc:~$ netstat -pnltu
(Not all processes could be identified, non-owned process info
 will not be shown, you would have to be root to see it all.)
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 0.0.0.0:22              0.0.0.0:*               LISTEN      -
tcp6       0      0 :::33060                :::*                    LISTEN      -
tcp6       0      0 :::3306                 :::*                    LISTEN      -
tcp6       0      0 :::22                   :::*                    LISTEN      -
udp        0      0 127.0.0.1:323           0.0.0.0:*                           -
udp        0      0 0.0.0.0:68              0.0.0.0:*                           -
udp6       0      0 ::1:323                 :::*                                -
udp6       0      0 fe80::20d:3aff:feaf:546 :::*                                -
cym@Projecto1-Cristian-Yuheng-Marc:~$
```

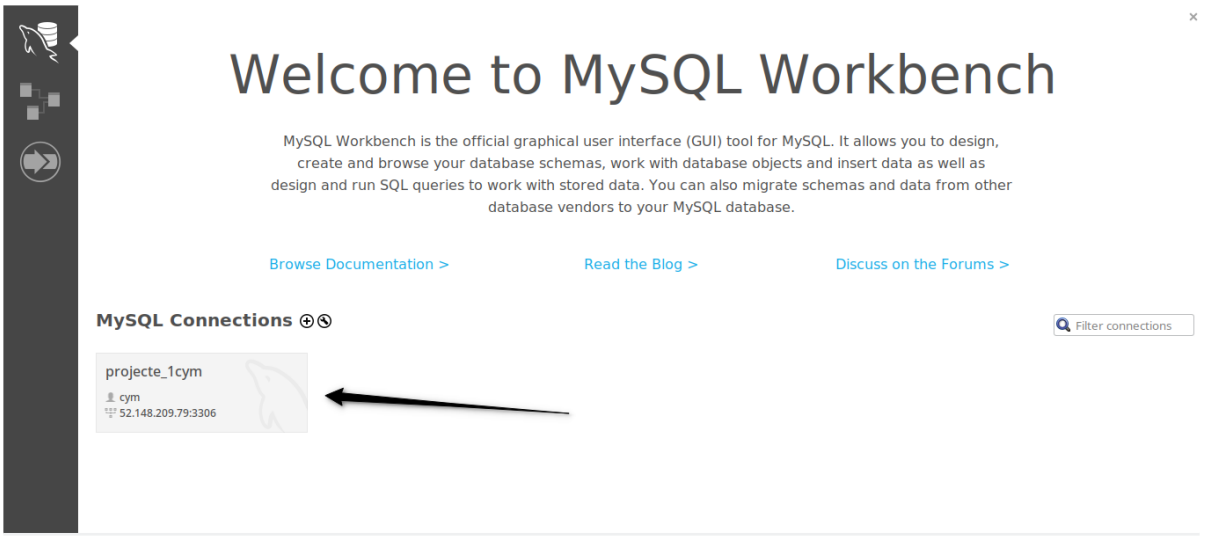
Com podeu veure està obert.

Ara creem un usuari en mysql per a conectarse de forma remota.

```
mysql> CREATE USER 'cym'@'localhost' IDENTIFIED BY 'Admin810';
Query OK, 0 rows affected (0.01 sec)

mysql> CREATE USER 'cym'@'%' IDENTIFIED BY 'Admin810';
ERROR 1396 (HY000): Operation CREATE USER failed for 'cym'@'%'
mysql> CREATE USER 'myc'@'%' IDENTIFIED BY 'Admin810';
Query OK, 0 rows affected (0.02 sec)

mysql> SHOW GRANTS FOR `myc`@`localhost`;
```

```
mysql> SHOW GRANTS FOR `cym`@`localhost`;
+-----------------------------------------+
| Grants for cym@localhost                |
+-----------------------------------------+
| GRANT USAGE ON *.* TO `cym`@`localhost` |
+-----------------------------------------+
1 row in set (0.00 sec)

mysql> SHOW GRANTS FOR `myc`@`%`;
+---------------------------------+
| Grants for myc@%                |
+---------------------------------+
| GRANT USAGE ON *.* TO `myc`@`%` |
+---------------------------------+
1 row in set (0.00 sec)

mysql>
```

I ara introduïm les dades al workbench per a accedir a la base de dades del mysql.



Com podeu veure hi ha una ip diferent ja que he tingut que crear una altre maquina virtual ja que l'altre máquina no funcionaba.

Webgrafia M1:

https://docs.microsoft.com/es-es/azure-stack/user/azure-stack-manage-vm-disks?view=azs-2108&tabs=az1%2Caz2%2Caz3%2Caz4%2Caz5%2Caz6%2Caz7%2Caz8

https://docs.microsoft.com/es-es/azure/bastion/bastion-connect-vm-ssh-linux

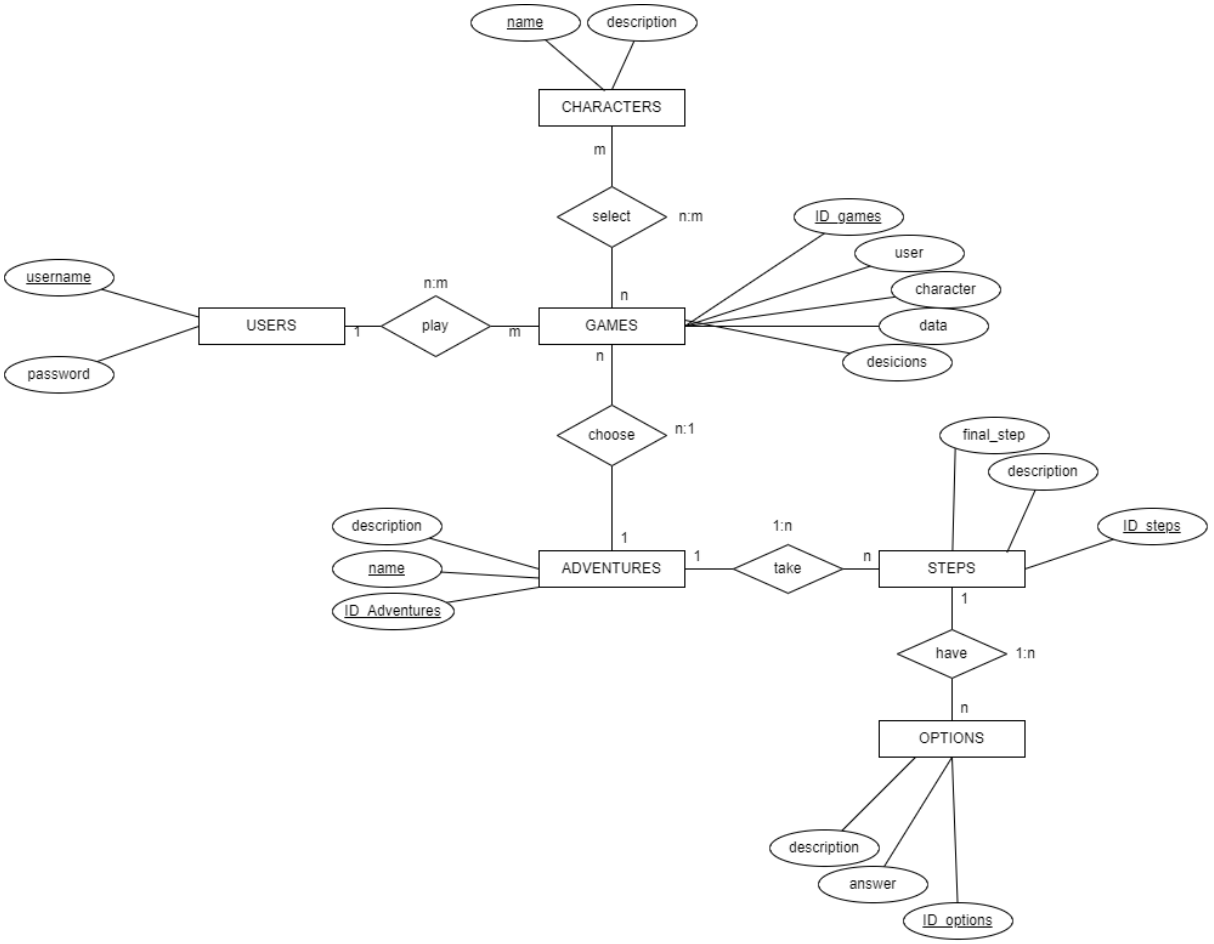
https://docs.microsoft.com/en-us/azure/virtual-machines/linux/mac-create-ssh-keys

https://docs.microsoft.com/en-us/azure/virtual-machines/linux/quick-create-cli

https://chachocool.com/como-instalar-mysql-en-debian-10-buster/

https://www.digitalocean.com/community/tutorials/how-to-install-mariadb-on-debian-10

M2:



En aquest diagrama de chen podem veure que els Users que tenen com a primary key l'username, i està relacionat amb els GAMES, tenen una relació 1:m pel fet que un usuari pot jugar diferents partides, però una partida només pot ser jugada per un usuari alhora,Games té com a primary key ID_games, i aquesta relacionada amb CHARACTERS i entre elles tenen una relació n:m ja que diferents personatges poden jugar diferents partides i les partides poden ser jugades per diversos personatges, Characters té com a PK el name
.
Games també està relacionat amb Adventures, a cada partida se selecciona una aventura a jugar i una aventura pot ser seleccionada en diferents partides. per això la relació n:1, Adventures té com a PK l'ID_adventures, les aventures tenen una relació amb STEPS, en una aventura es poden seleccionar diferents passos mentre que aquests passos només són seleccionats en una aventura de la relació 1:n, Els STEPS tenen una relacio 1:n amb OPTIONS

M4
Hem agafat de referència aquestes dues pàgines
https://www.activision.com/
https://www.epicgames.com/site/es-ES/home
La nostra pàginaProyecto: