

Lunes 21 febrero 2022

```
sebas@SebasUbuntuPC:~$ sudo docker run -it --name serverssh -p 2222:22 ubuntu:20.04
[sudo] contraseña para sebas:
root@b745d39277f0:/#
```

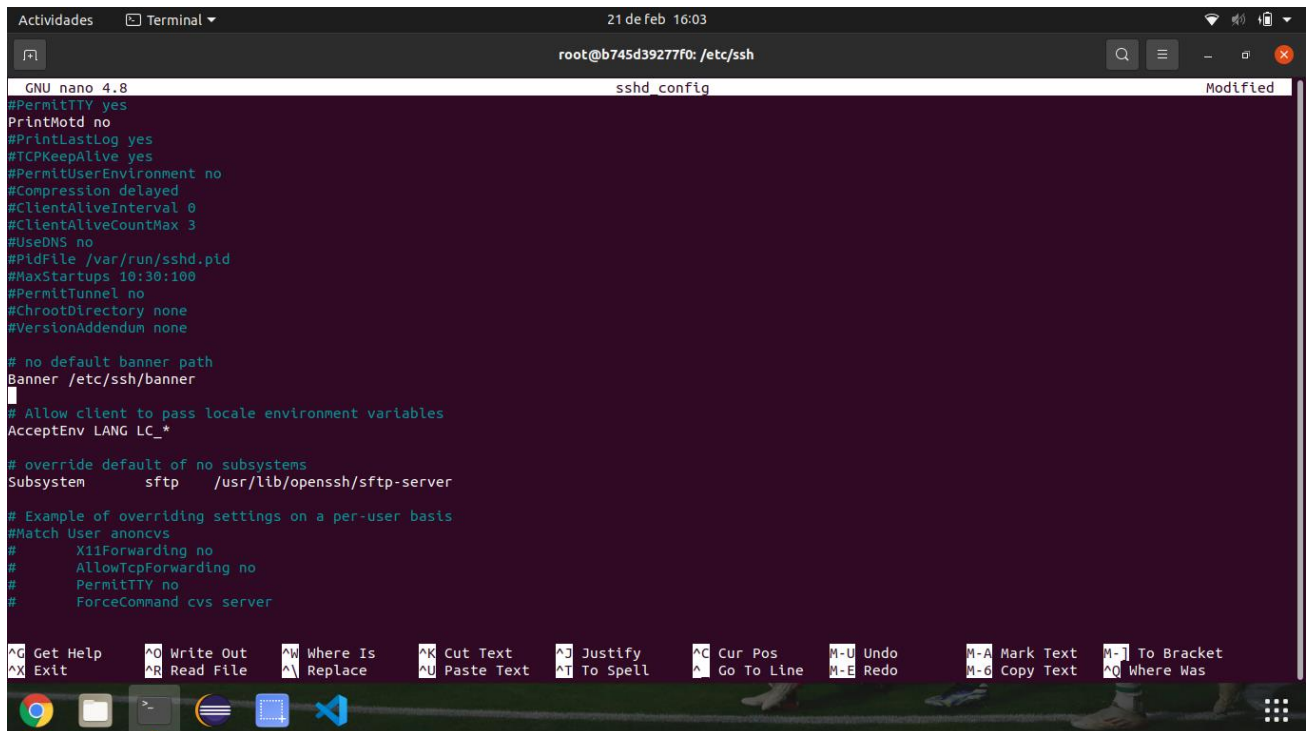
```
root@b745d39277f0:/# apt update
Get:1 http://archive.ubuntu.com/ubuntu focal InRelease [265 kB]
Get:2 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:3 http://archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:4 http://archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Get:5 http://archive.ubuntu.com/ubuntu focal/universe amd64 Packages [11.3 MB]
Get:6 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [1557 kB]
Get:7 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [974 kB]
Get:8 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 Packages [25.8 kB]
Get:9 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [841 kB]
Get:10 http://archive.ubuntu.com/ubuntu focal/multiverse amd64 Packages [177 kB]
Get:11 http://archive.ubuntu.com/ubuntu focal/main amd64 Packages [1275 kB]
Get:12 http://archive.ubuntu.com/ubuntu focal/restricted amd64 Packages [33.4 kB]
Get:13 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [1134 kB]
Get:14 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [1984 kB]
Get:15 http://archive.ubuntu.com/ubuntu focal-updates/restricted amd64 Packages [1042 kB]
Get:16 http://archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 Packages [29.4 kB]
Get:17 http://archive.ubuntu.com/ubuntu focal-backports/main amd64 Packages [50.8 kB]
Get:18 http://archive.ubuntu.com/ubuntu focal-backports/universe amd64 Packages [24.8 kB]
Fetched 21.1 MB in 5s (4345 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
13 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@b745d39277f0:/#
```

```
root@b745d39277f0:/# ls
bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var
root@b745d39277f0:/# apt install ssh
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
```

```
root@b745d39277f0:/# service ssh start
* Starting OpenBSD Secure Shell server sshd
root@b745d39277f0:/# service ssh status
* sshd is running
root@b745d39277f0:/#
```

```
root@b745d39277f0:/# cd /etc/ssh
root@b745d39277f0:/etc/ssh# ls
moduli          ssh_config.d      ssh_host_ecdsa_key.pub  ssh_host_ed25519_key.pub  ssh_host_rsa_key.pub  sshd_config
ssh_config      ssh_host_ecdsa_key  ssh_host_ed25519_key    ssh_host_rsa_key          ssh_import_id         sshd_config.d
root@b745d39277f0:/etc/ssh#
```

```
root@b745d39277f0:/etc/ssh# apt install nano
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
  hunspell
The following NEW packages will be installed:
  nano
0 upgraded, 1 newly installed, 0 to remove and 12 not upgraded.
Need to get 269 kB of archives.
After this operation, 868 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu focal/main amd64 nano amd64 4.8-1ubuntu1 [269 kB]
Fetched 269 kB in 0s (923 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package nano.
(Reading database ... 12088 files and directories currently installed.)
Preparing to unpack .../nano 4.8-1ubuntu1_amd64.deb ...
Unpacking nano (4.8-1ubuntu1) ...
Setting up nano (4.8-1ubuntu1) ...
update-alternatives: using /bin/nano to provide /usr/bin/editor (editor) in auto mode
update-alternatives: warning: skip creation of /usr/share/man/man1/editor.1.gz because associated file /usr/share/man/man1/nano.1.gz (of link group editor) doesn't exist
update-alternatives: using /bin/nano to provide /usr/bin/pico (pico) in auto mode
update-alternatives: warning: skip creation of /usr/share/man/man1/pico.1.gz because associated file /usr/share/man/man1/nano.1.gz (of link group pico) doesn't exist
root@b745d39277f0:/etc/ssh#
```



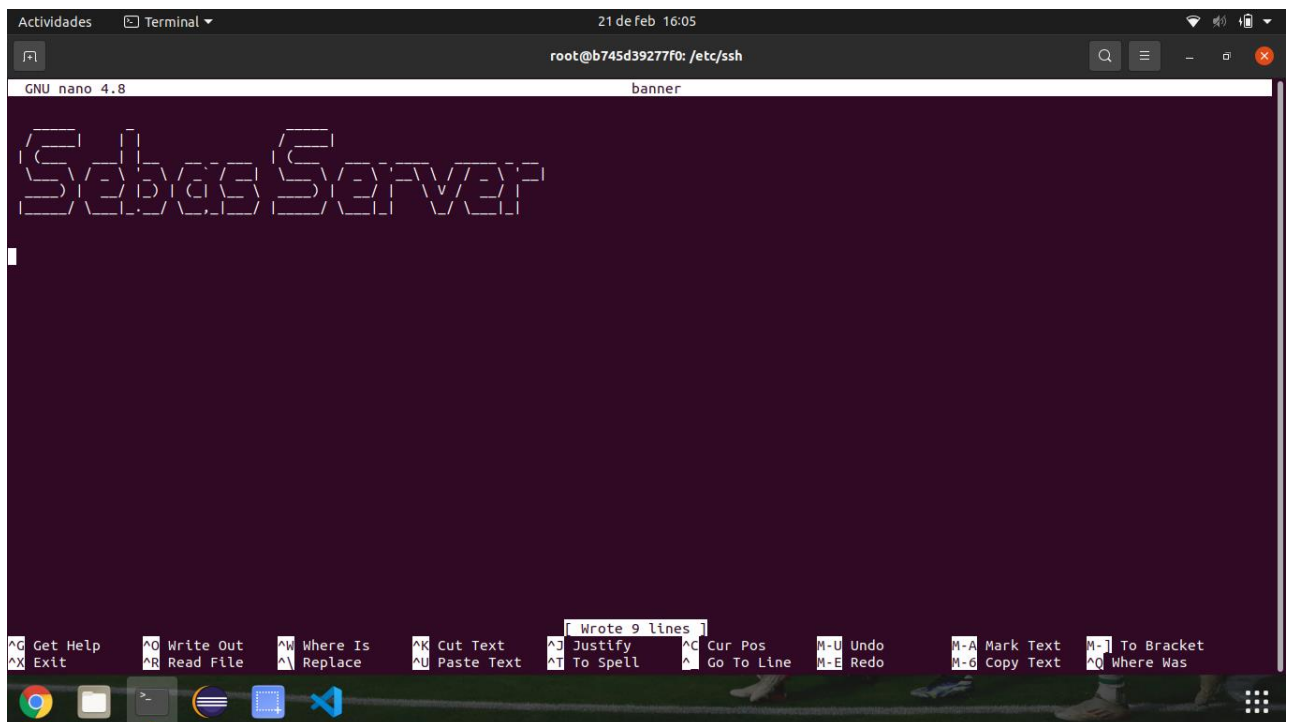
```
Actividades Terminal 21 de feb 16:03
root@b745d39277f0: /etc/ssh sshd_config Modified
GNU nano 4.8
#PermitTTY yes
PrintMotd no
#PrintLastLog yes
#TCPKeepAlive yes
#PermitUserEnvironment no
#Compression delayed
#ClientAliveInterval 0
#ClientAliveCountMax 3
#UseDNS no
#PidFile /var/run/sshd.pid
#MaxStartups 10:30:100
#PermitTunnel no
#ChrootDirectory none
#VersionAddendum none

# no default banner path
Banner /etc/ssh/banner

# Allow client to pass locale environment variables
AcceptEnv LANG LC_*

# override default of no subsystems
Subsystem      sftp          /usr/lib/openssh/sftp-server

# Example of overriding settings on a per-user basis
#Match User anoncvs
#      X11Forwarding no
#      AllowTcpForwarding no
#      PermitTTY no
#      ForceCommand cvs server
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos ^U Undo ^A Mark Text ^] To Bracket
^X Exit ^R Read File ^_ Replace ^V Paste Text ^T To Spell ^_ Go To Line ^E Redo ^-6 Copy Text ^_ Where Was
```



Contraseña = sebas

```
root@b745d39277f0:/etc/ssh# adduser sebas
Adding user `sebas' ...
Adding new group `sebas' (1000) ...
Adding new user `sebas' (1000) with group `sebas' ...
Creating home directory `/home/sebas' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for sebas
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
root@b745d39277f0:/etc/ssh#
```

```
sebas@SebasUbuntuPC:~$ sudo docker start serverssh
[sudo] contraseña para sebas:
serverssh
sebas@SebasUbuntuPC:~$
sebas@SebasUbuntuPC:~$ ssh sebas@127.0.0.1 -p 2222
The authenticity of host '[127.0.0.1]:2222 ([127.0.0.1]:2222)' can't be established.
ECDSA key fingerprint is SHA256:+TLeIaZa3AzN3Z+JIKtyjEzEqcwU9SyeErr6mBewpoM.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '[127.0.0.1]:2222' (ECDSA) to the list of known hosts.
Connection closed by 127.0.0.1 port 2222
sebas@SebasUbuntuPC:~$
```

-----  
Miércoles 23 febrero 2022

```
start: unrecognized service
sebas@SebasUbuntuPC:~$ sudo docker exec -it serverssh /bin/bash
root@b745d39277f0:/# service start ssh
start: unrecognized service
root@b745d39277f0:/# service ssh start
* Starting OpenBSD Secure Shell server sshd
root@b745d39277f0:/# service ssh status
* sshd is running
root@b745d39277f0:/#
```

```
root@b745d39277f0: /
sebas@SebasUbuntuPC:~$ ssh sebas@127.0.0.1 -p 2222

Sebas Server

sebas@127.0.0.1's password:
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.13.0-30-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

This system has been minimized by removing packages and content that are
not required on a system that users do not log into.

To restore this content, you can run the 'unminimize' command.

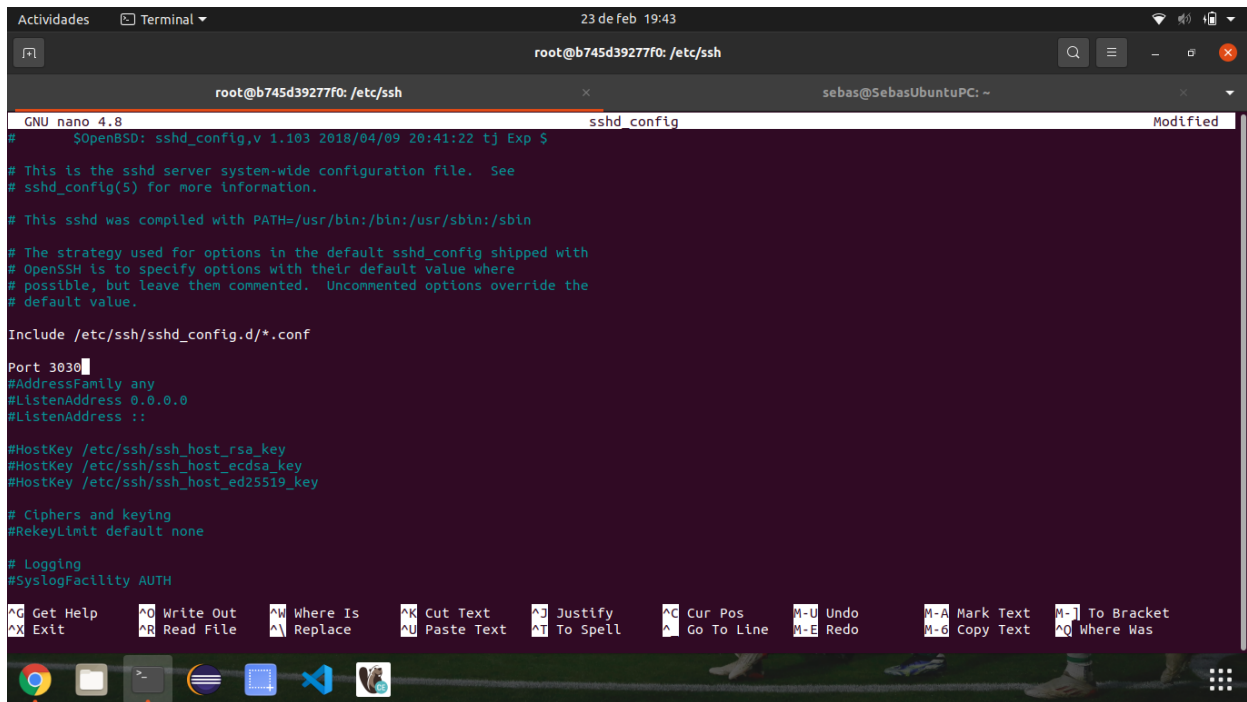
The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

sebas@b745d39277f0:~$
```

## 2.-Modificar el puerto

Cambiamos el puerto al 3030



```
GNU nano 4.8 sshd_config Modified
# $OpenBSD: sshd_config,v 1.103 2018/04/09 20:41:22 tj Exp $

# This is the sshd server system-wide configuration file.  See
# sshd_config(5) for more information.

# This sshd was compiled with PATH=/usr/bin:/bin:/usr/sbin:/sbin

# The strategy used for options in the default sshd_config shipped with
# OpenSSH is to specify options with their default value where
# possible, but leave them commented.  Uncommented options override the
# default value.

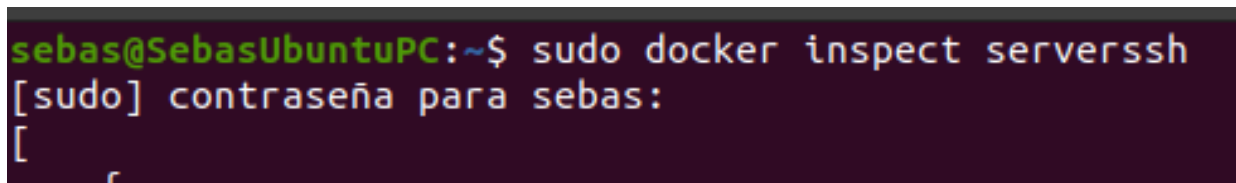
Include /etc/ssh/sshd_config.d/*.conf

Port 3030
#AddressFamily any
#ListenAddress 0.0.0.0
#ListenAddress ::

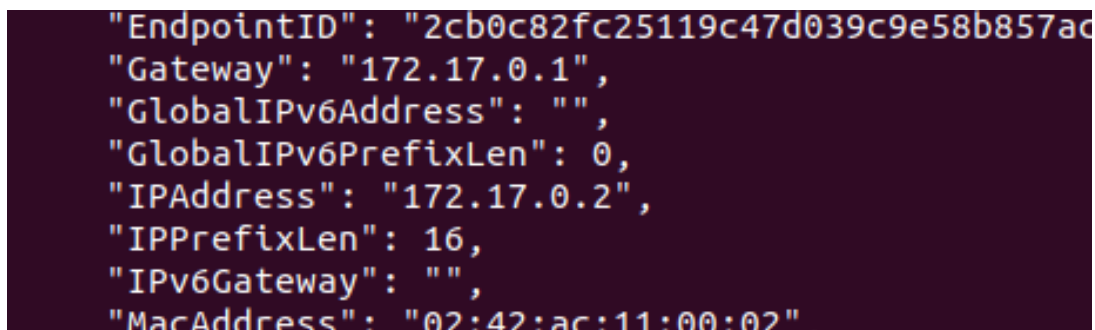
#HostKey /etc/ssh/ssh_host_rsa_key
#HostKey /etc/ssh/ssh_host_ecdsa_key
#HostKey /etc/ssh/ssh_host_ed25519_key

# Ciphers and keying
#RekeyLimit default none

# Logging
#SyslogFacility AUTH
```



```
sebas@SebasUbuntuPC:~$ sudo docker inspect serverssh
[sudo] contraseña para sebas:
[
```



```
"EndpointID": "2cb0c82fc25119c47d039c9e58b857ac",
"Gateway": "172.17.0.1",
"GlobalIPv6Address": "",
"GlobalIPv6PrefixLen": 0,
"IPAddress": "172.17.0.2",
"IPPrefixLen": 16,
"IPv6Gateway": "",
"MacAddress": "02:42:ac:11:00:02",
```

```
root@b745d39277f0:/etc/ssh# service ssh restart
* Restarting OpenBSD Secure Shell server sshd
root@b745d39277f0:/etc/ssh# service ssh status
* sshd is running
root@b745d39277f0:/etc/ssh#
```

```
sebas@SebasUbuntuPC:~$ ssh sebas@172.17.0.2 -p 3030
```

```

  ____      _
 / ___|    / \
| |  | |  / _ \
| |  | | / ___ \
| |  | |/_/   \_\
| |  | |
|_|  |_|

```

sebas@172.17.0.2's password:

Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.13.0-30-generic x86\_64)

- \* Documentation: <https://help.ubuntu.com>
- \* Management: <https://landscape.canonical.com>
- \* Support: <https://ubuntu.com/advantage>

This system has been minimized by removing packages and content that are not required on a system that users do not log into.

To restore this content, you can run the 'unminimize' command.

Last login: Wed Feb 23 20:00:00 2022 from 172.17.0.1

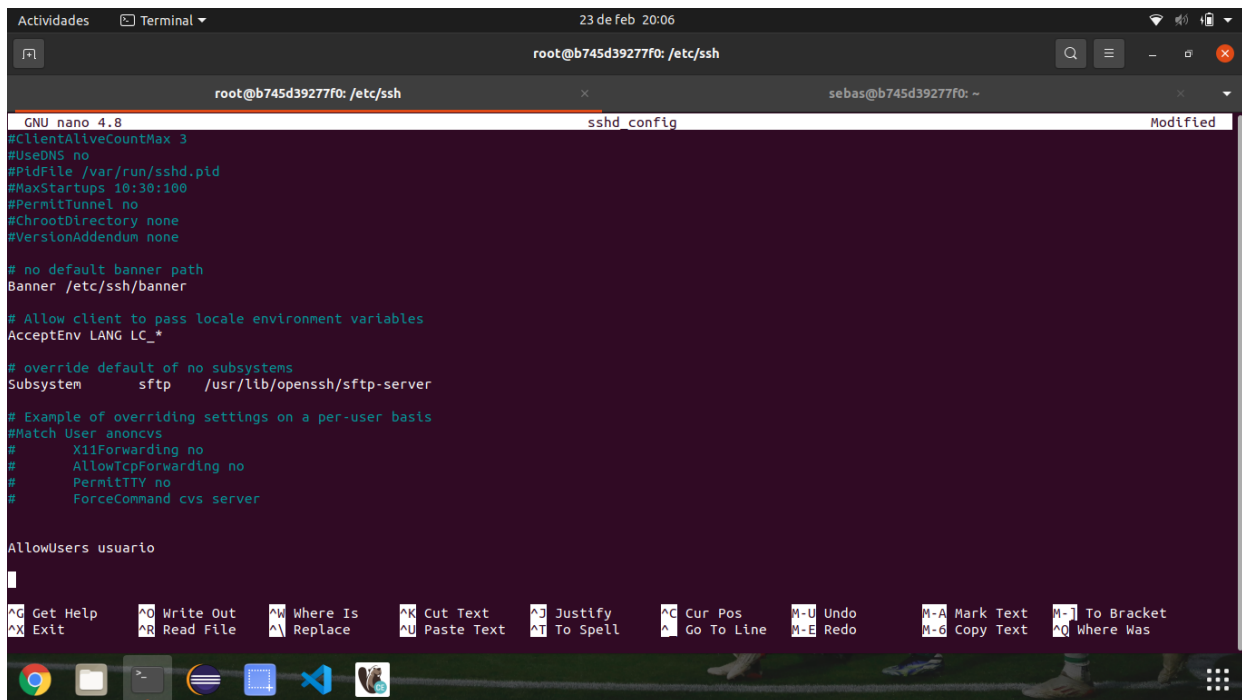
```
sebas@b745d39277f0:~$
```

### 3.- Limitar el uso de servicio a determinados usuarios

Contraseña: usuario



```
root@b745d39277f0:/etc/ssh# adduser usuario
Adding user `usuario' ...
Adding new group `usuario' (1001) ...
Adding new user `usuario' (1001) with group `usuario' ...
Creating home directory `/home/usuario' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for usuario
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
root@b745d39277f0:/etc/ssh#
```



```
GNU nano 4.8 sshd_config Modified
#ClientAliveCountMax 3
#UseDNS no
#PidFile /var/run/sshd.pid
#MaxStartups 10:30:100
#PermitTunnel no
#ChrootDirectory none
#VersionAddendum none

# no default banner path
Banner /etc/ssh/banner

# Allow client to pass locale environment variables
AcceptEnv LANG LC_*

# override default of no subsystems
Subsystem sftp /usr/lib/openssh/sftp-server

# Example of overriding settings on a per-user basis
#Match User anoncvs
#    X11Forwarding no
#    AllowTcpForwarding no
#    PermitTTY no
#    ForceCommand cvs server

AllowUsers usuario
```

```
root@b745d39277f0:/etc/ssh# service ssh restart
* Restarting OpenBSD Secure Shell server sshd
root@b745d39277f0:/etc/ssh# service ssh status
* sshd is running
root@b745d39277f0:/etc/ssh#
```

```
Actividades Terminal 23 de feb 20:09
usuario@b745d39277f0: ~
root@b745d39277f0: /etc/ssh
sebas@SebasUbuntuPC:~$ ssh usuario@172.17.0.2 -p 3030

Sebas Server

usuario@172.17.0.2's password:
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.13.0-30-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

This system has been minimized by removing packages and content that are
not required on a system that users do not log into.

To restore this content, you can run the 'unminimize' command.

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the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

usuario@b745d39277f0:~$
```

```
sebas@SebasUbuntuPC:~$ ssh sebas@172.17.0.2 -p 3030

Sebas Server

sebas@172.17.0.2's password:
Permission denied, please try again.
sebas@172.17.0.2's password:
Permission denied, please try again.
sebas@172.17.0.2's password:
sebas@172.17.0.2: Permission denied (publickey,password).
sebas@SebasUbuntuPC:~$
```

4.- Limitar el uso de servicios a determinados grupos de usuarios.

```
root@b745d39277f0:/etc/ssh# groupadd grupossh
root@b745d39277f0:/etc/ssh#
```



```
root@b745d39277f0:/etc/ssh# groupadd grupossh
root@b745d39277f0:/etc/ssh# usermod -G grupossh usuario
root@b745d39277f0:/etc/ssh# adduser usuario2
Adding user `usuario2' ...
Adding new group `usuario2' (1003) ...
Adding new user `usuario2' (1002) with group `usuario2' ...
Creating home directory `/home/usuario2' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for usuario2
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
root@b745d39277f0:/etc/ssh# usermod -G grupossh usuario2
root@b745d39277f0:/etc/ssh#
```

```
root@b745d39277f0:/etc/ssh# adduser usuario3
Adding user `usuario3' ...
Adding new group `usuario3' (1004) ...
Adding new user `usuario3' (1003) with group `usuario3' ...
Creating home directory `/home/usuario3' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for usuario3
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
root@b745d39277f0:/etc/ssh#
```

En sshd\_config

```
#AllowUsers usuario
AllowGroups grupossh
```

```
root@b745d39277f0:/etc/ssh# service ssh restart
* Restarting OpenBSD Secure Shell server sshd
root@b745d39277f0:/etc/ssh# service ssh status
* sshd is running
root@b745d39277f0:/etc/ssh#
```

Usuario --> permitido

```
sebas@SebasUbuntuPC:~$ ssh usuario@172.17.0.2 -p 3030

Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.13.0-30-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

This system has been minimized by removing packages and content that are
not required on a system that users do not log into.

To restore this content, you can run the 'unminimize' command.
Last login: Wed Feb 23 20:12:19 2022 from 172.17.0.1
usuario@b745d39277f0:~$
```

Usuario 2 --> permitido

```
sebas@SebasUbuntuPC:~$ ssh usuario2@172.17.0.2 -p 3030
```

```
SebasServer
```

```
usuario2@172.17.0.2's password:
```

```
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.13.0-30-generic x86_64)
```

```
* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/advantage
```

This system has been minimized by removing packages and content that are not required on a system that users do not log into.

To restore this content, you can run the 'unminimize' command.

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

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.

```
usuario2@b745d39277f0:~$
```

Usuario 3 --> no permitido

```
sebas@SebasUbuntuPC:~$ ssh usuario3@172.17.0.2 -p 3030
```

```
SebasServer
```

```
usuario3@172.17.0.2's password:
```

```
Permission denied, please try again.
```

```
usuario3@172.17.0.2's password:
```

```
Permission denied, please try again.
```

```
usuario3@172.17.0.2's password:
```

5.- Modificar el servidor SSH para que el numero maximo de intentos de login sea 3.

En el archivo de configuración sshd\_config, ponemos MaxAuthTries y el nº de veces que queremos. En este caso será 3.

```
#PermitRootLogin prohibit-password
#StrictModes yes
MaxAuthTries 3
#MaxSessions 10
```

6.- Modificar el servidor SSH para que el numero maximo de usuarios a la vez en el sistema sea 2.

En el archivo de configuración sshd\_config, ponemos MaxSessions y el nº de veces que queremos. En este caso será 2.

```
#StrictModes yes
MaxAuthTries 3
MaxSessions 2
```

7.- Modificar el servidor SSH para que el tiempo de espera sea de 2 min.

En el archivo de configuración sshd\_config, ponemos LoginGraceTime y el nº de minutos que queremos. En este caso será 2 min.

```
LoginGraceTime 2m
#PermitRootLogin prohibit-password
#StrictModes yes
```