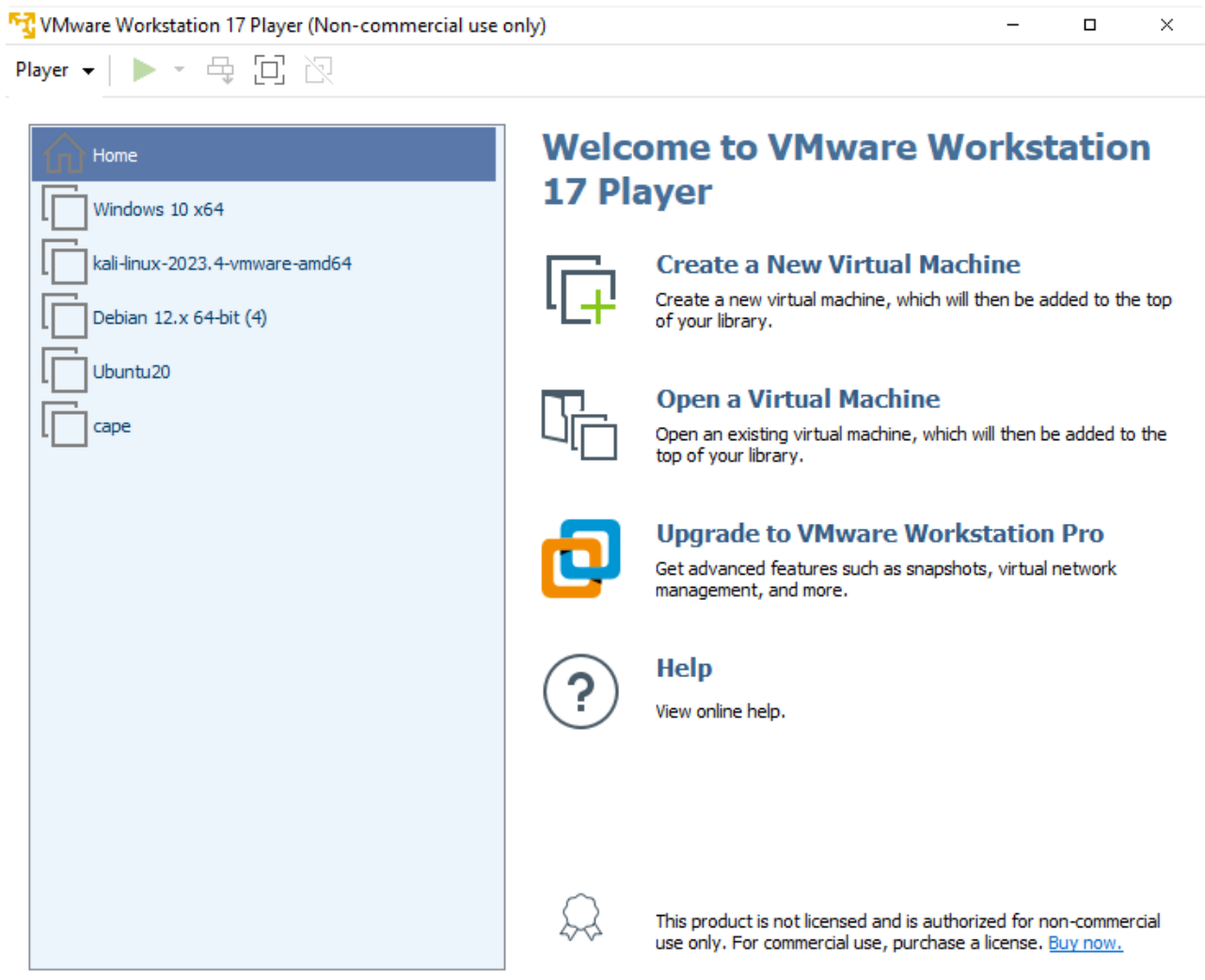


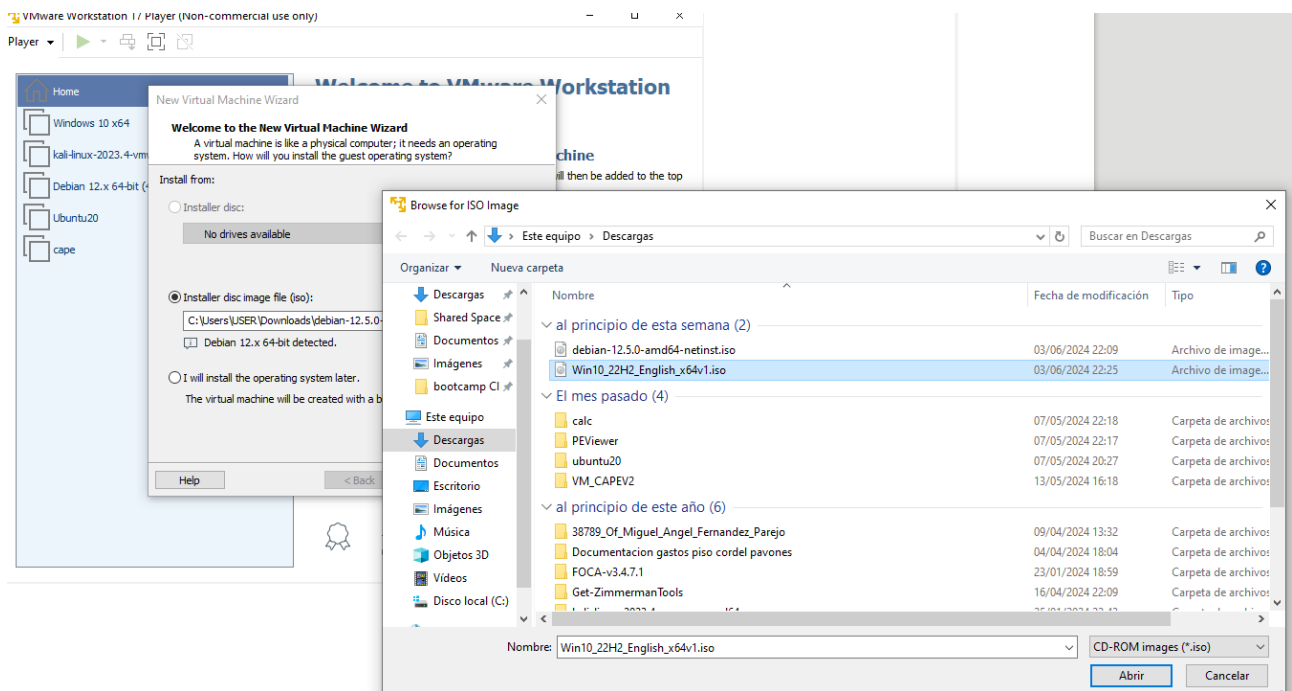
Ejercicio 2 Construir un laboratorio:

Máquina Windows 10:

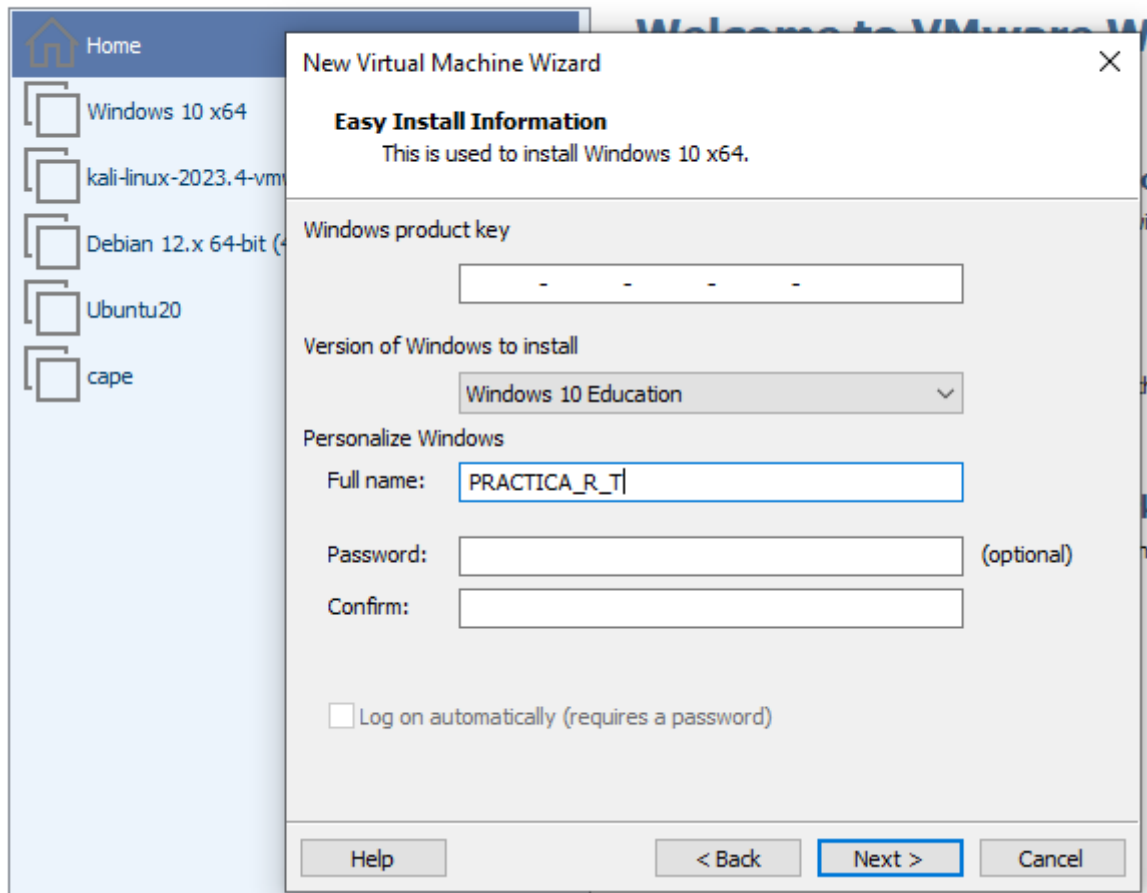
Hacer click en Create a New Virtual Machine



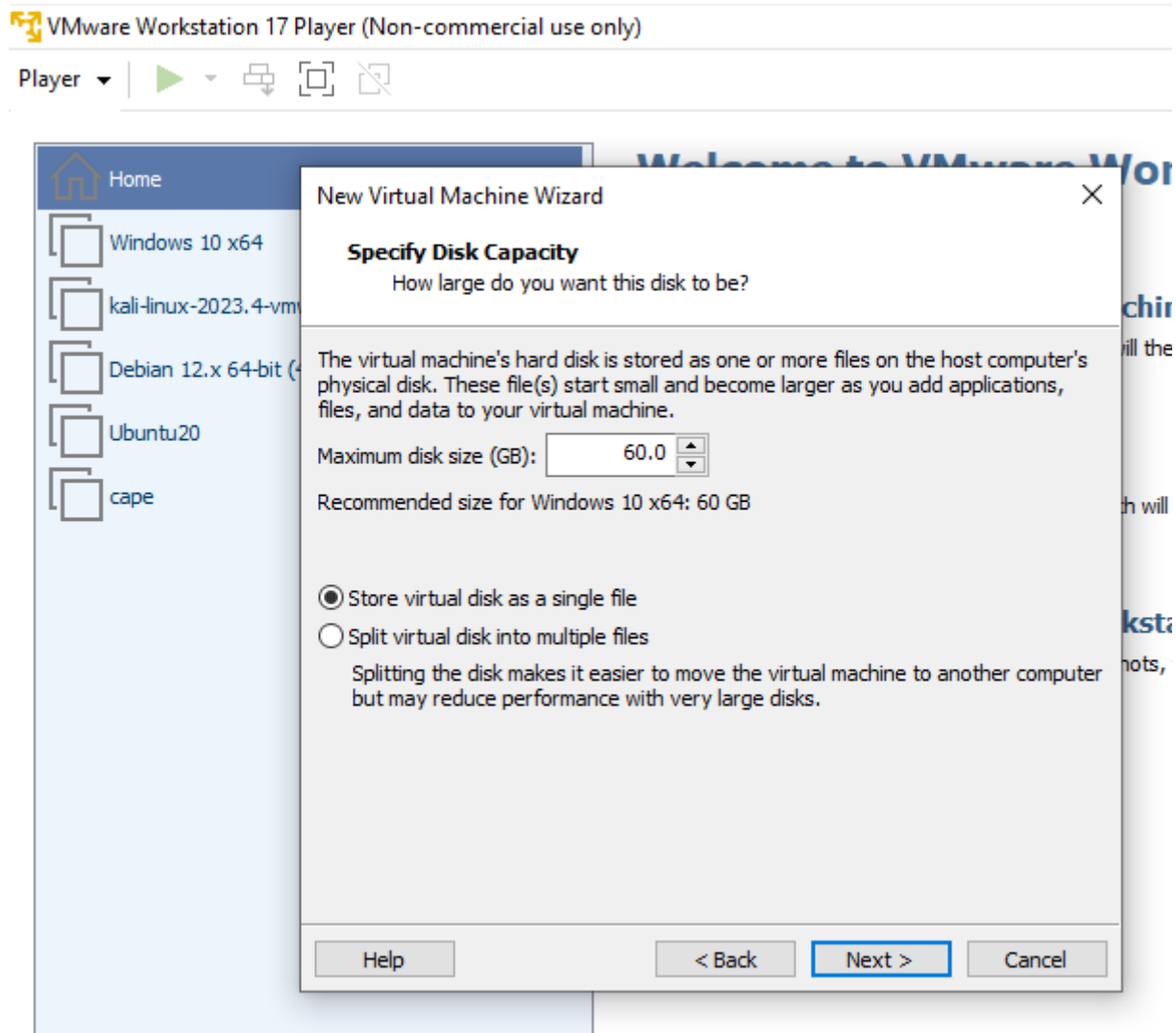
Elijo la .iso de window10:



Le doy un nombre:



Dejo 60 GB de tamaño de disco y selecciono la opción Store virtual disk as single file, (disco virtual como un solo archivo)



Aumento memoria RAM a 4GB

Device	Summary
Memory	2 GB
Processors	2
New CD/DVD (SATA)	Using file C:\Users\USER\Do...
Network Adapter	NAT
USB Controller	Present
Sound Card	Auto detect
Display	Auto detect

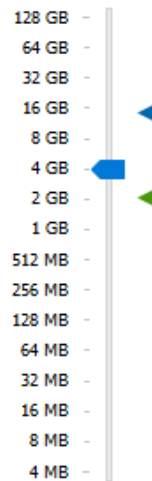
Add...

Remove

Memory

Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.

Memory for this virtual machine: 4096 MB



Maximum recommended memory
(Memory swapping may
occur beyond this size.)
13.4 GB

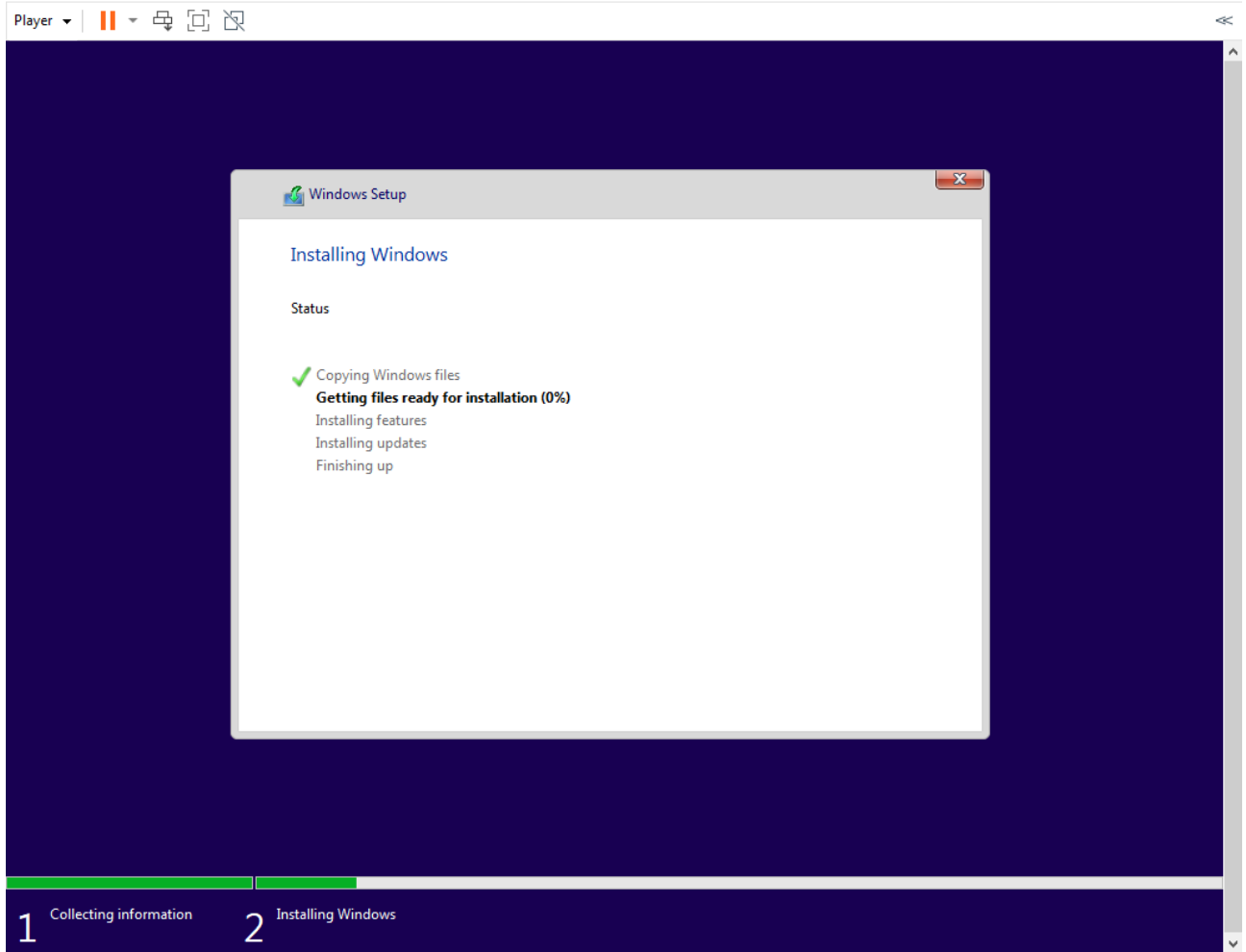
Recommended memory
2 GB

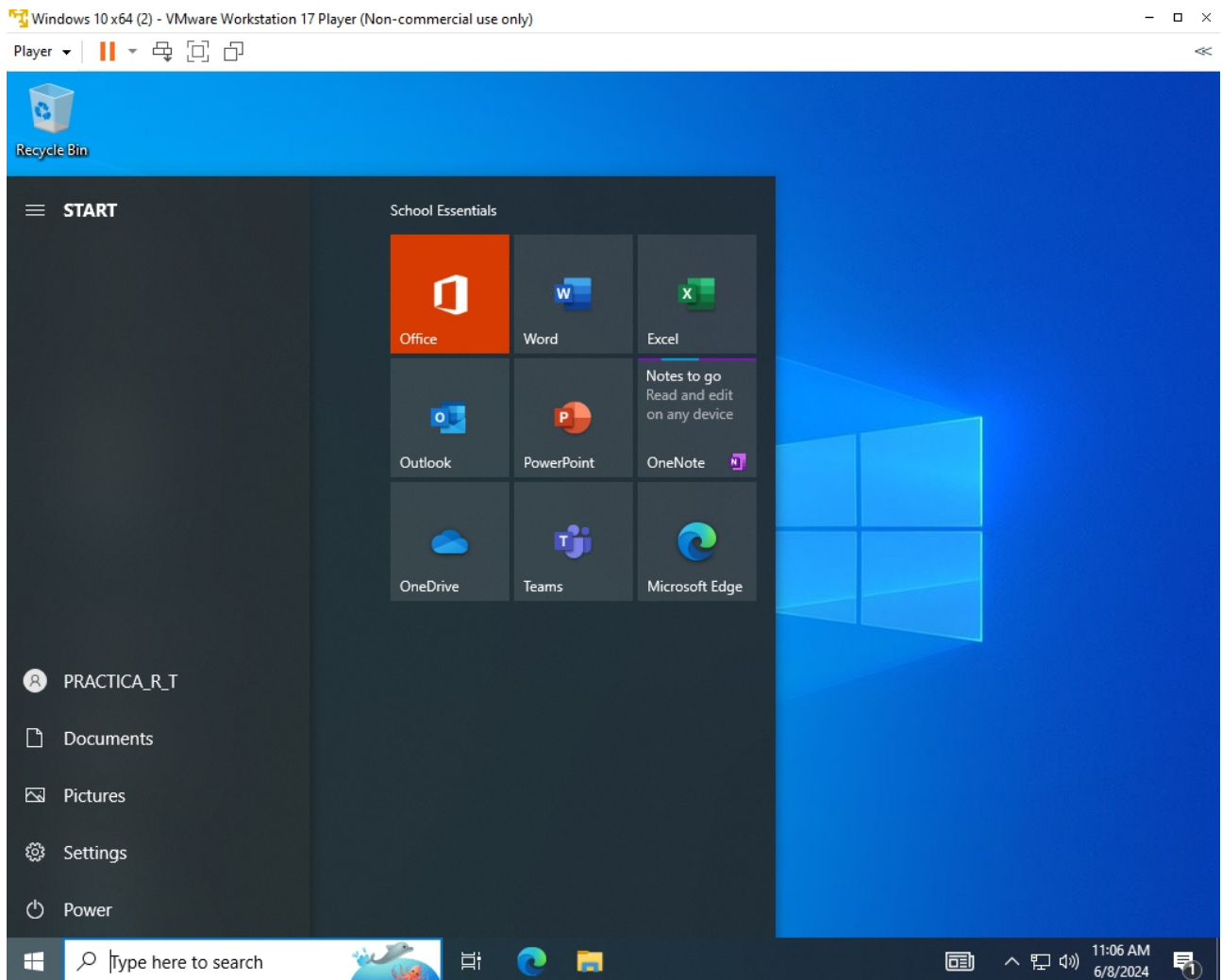
Guest OS recommended minimum
2 GB

Close

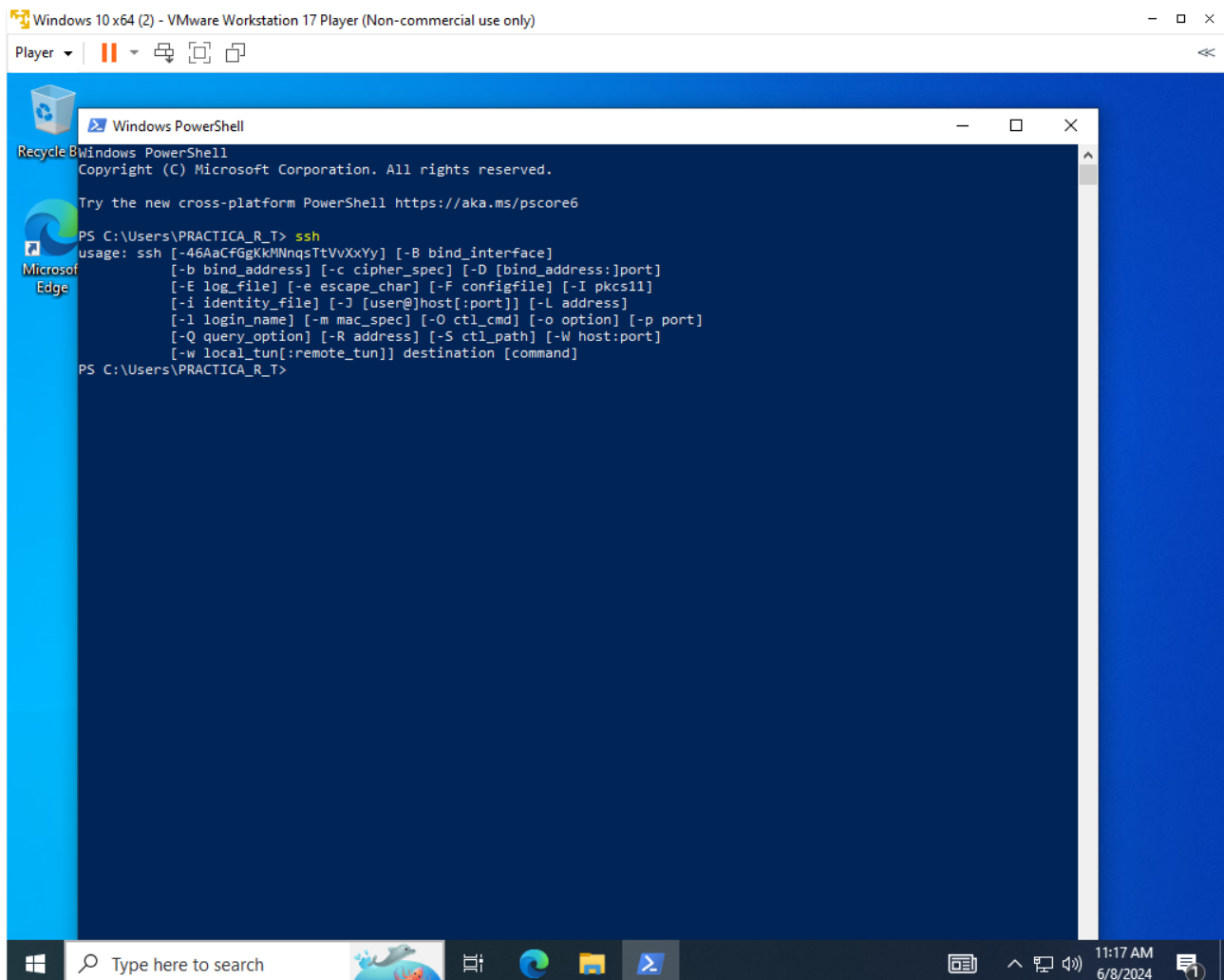
Help

Setup is starting



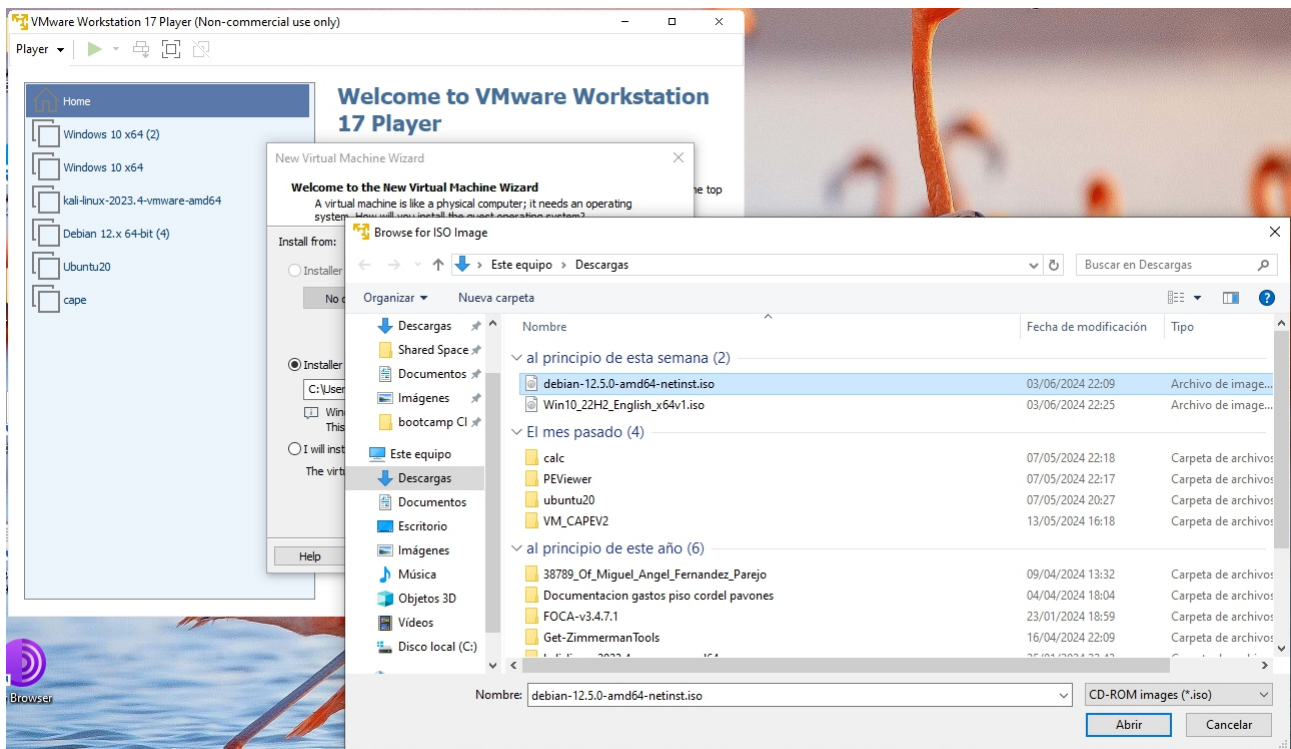


comprobamos el ssh



Máquina Linux (Debian C&C)

Creo nueva MV eligiendo la .iso Debian:



Dejo 30 GB de tamaño de disco y selecciono la opción Store virtual disk as single file, (disco virtual como un solo archivo)

Player ▾ | ▶ ▾ | 🖨️ 🖼️ 🗑️



Home



Windows 10 x64 (2)



Windows 10 x64



kali-linux-2023.4-vmware-amd64



Debian 12.x 64-bit (4)



Ubuntu20



cape

Welcome to VMware Workstation 17 Player

New Virtual Machine Wizard

Specify Disk Capacity

How large do you want this disk to be?

The virtual machine's hard disk is stored as one or more files on the host computer's physical disk. These file(s) start small and become larger as you add applications, files, and data to your virtual machine.

Maximum disk size (GB):

Recommended size for Debian 12.x 64-bit: 20 GB

☒ Store virtual disk as a single file☐ Split virtual disk into multiple files

Splitting the disk makes it easier to move the virtual machine to another computer but may reduce performance with very large disks.

Help

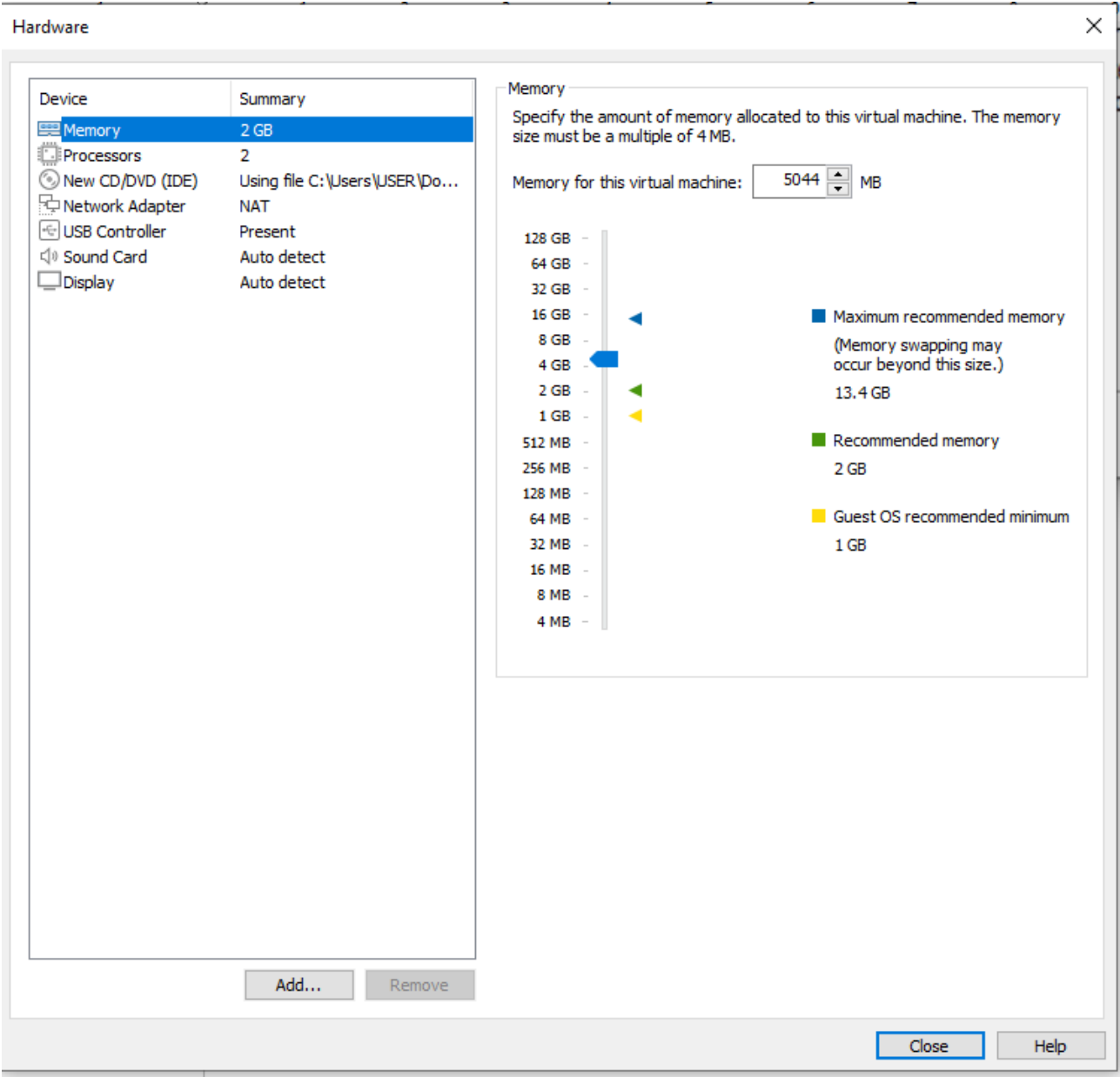
< Back

Next >

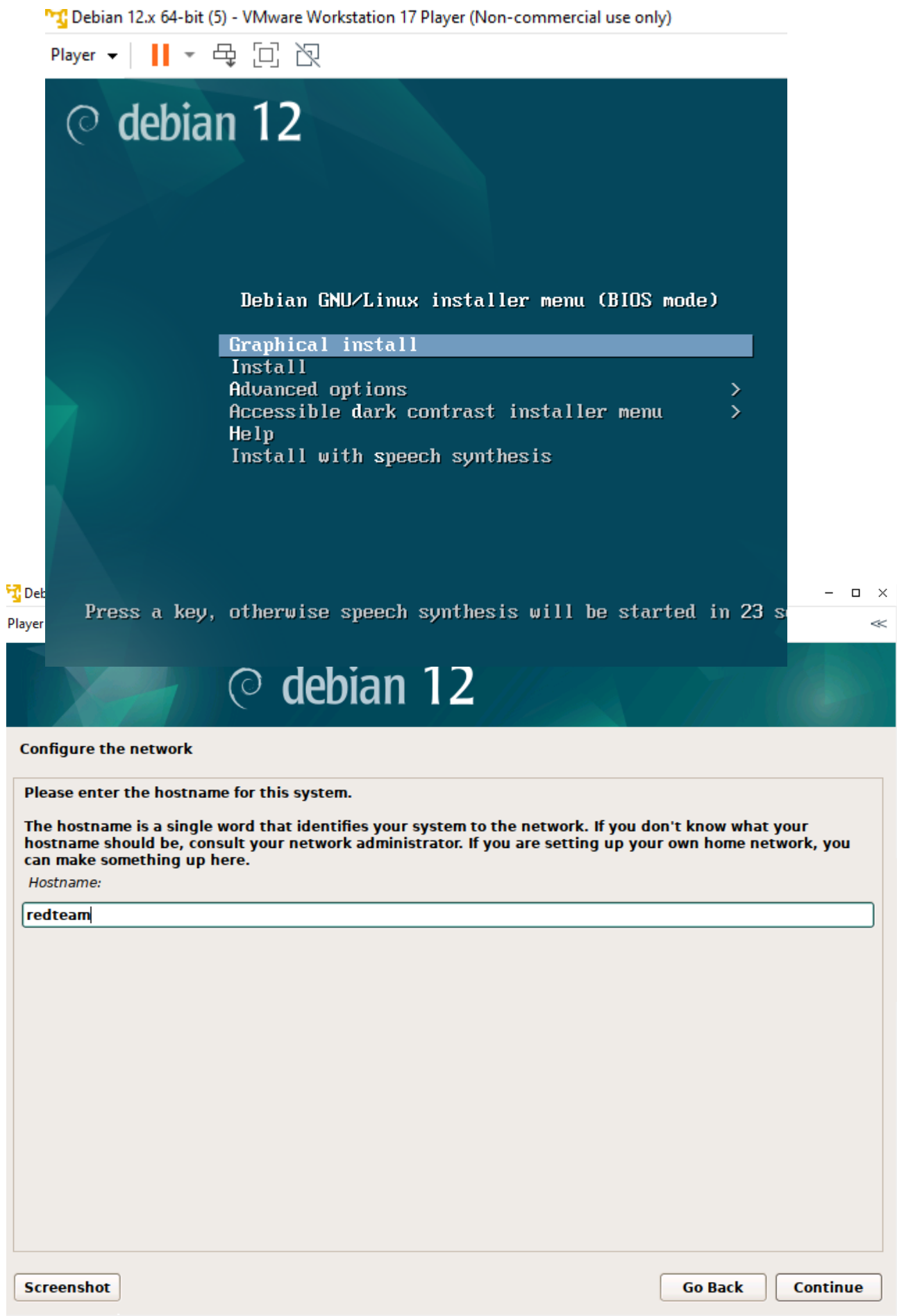
Cancel

Non-commercial use only. For commercial use, purchase a license. [Buy now.](#)

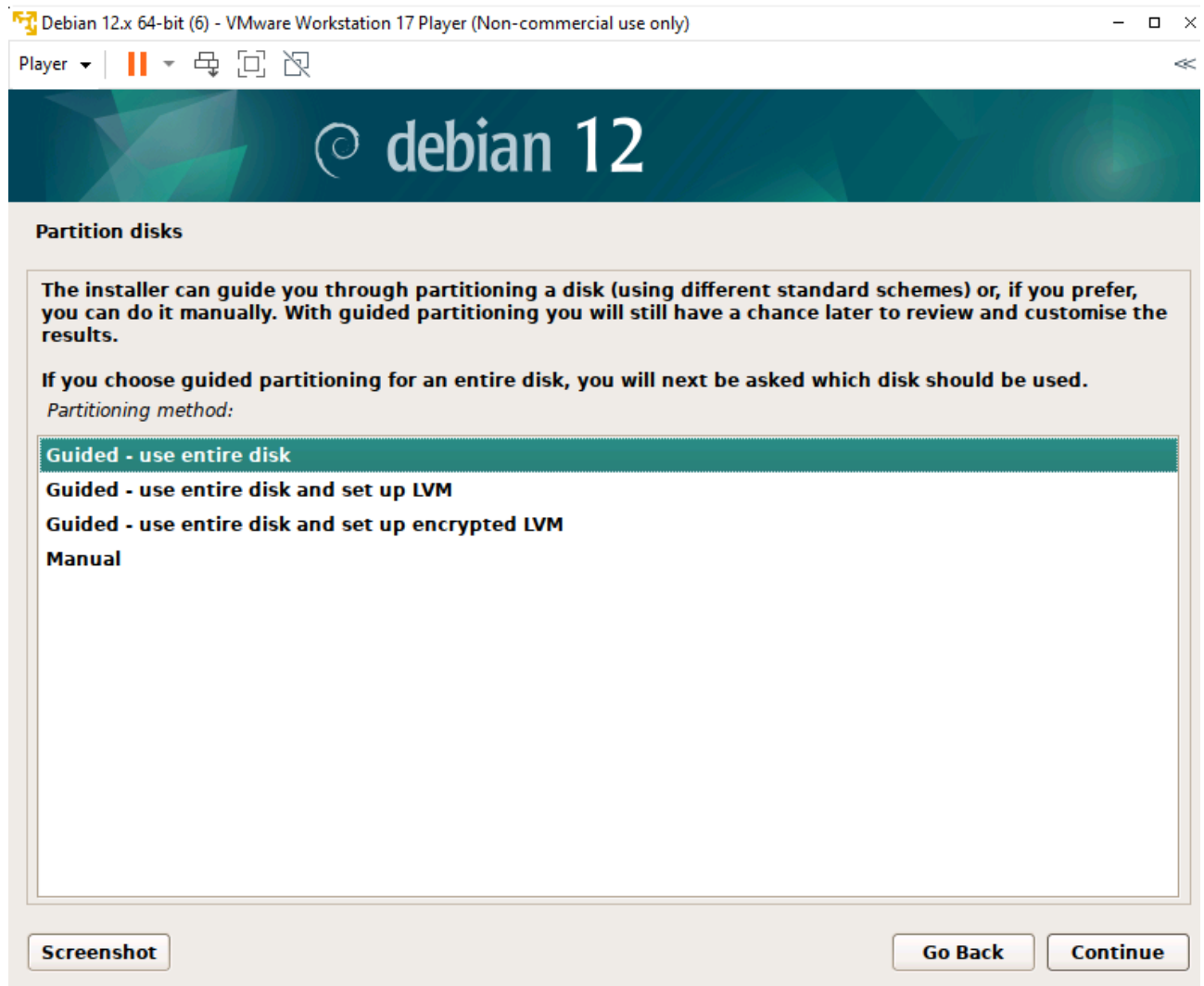
le pongo 5GB de memoria RAM



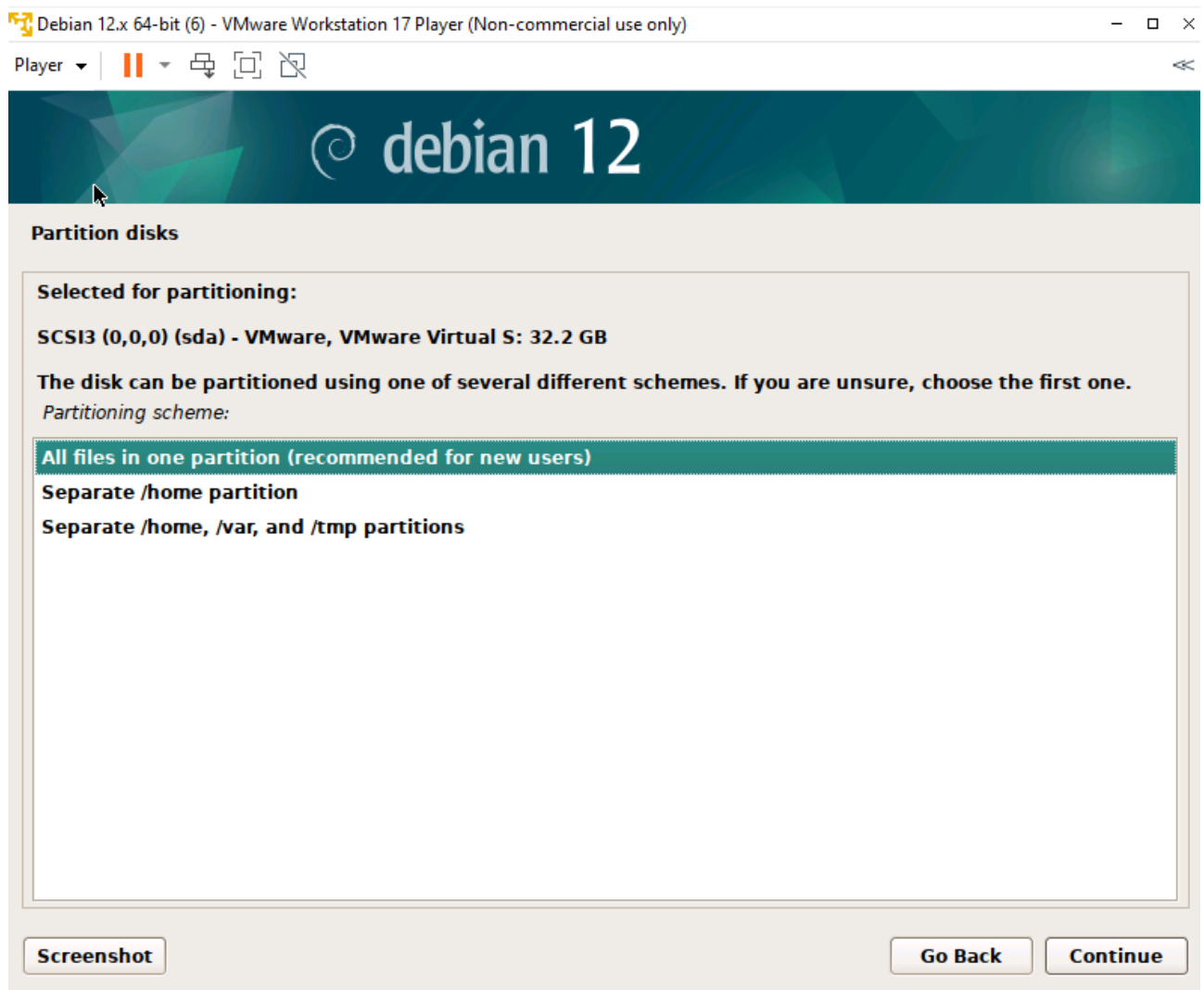
selecciono Graphical install y le pongo nombre de root readteam:



selecciono la primera opción “usar el disco completo”



Selecciono la primera opción. Todos los ficheros en una partición





Partition disks

This is an overview of your currently configured partitions and mount points. Select a partition to modify its settings (file system, mount point, etc.), a free space to create partitions, or a device to initialize its partition table.

Guided partitioning

Configure software RAID

Configure the Logical Volume Manager

Configure encrypted volumes

Configure iSCSI volumes

▽ SCSI3 (0,0,0) (sda) - 32.2 GB VMware, VMware Virtual S

- | | | | | | | |
|---|----|---------|---------|---|------|------|
| > | #1 | primary | 31.2 GB | f | ext4 | / |
| > | #5 | logical | 1.0 GB | f | swap | swap |

Undo changes to partitions

Finish partitioning and write changes to disk

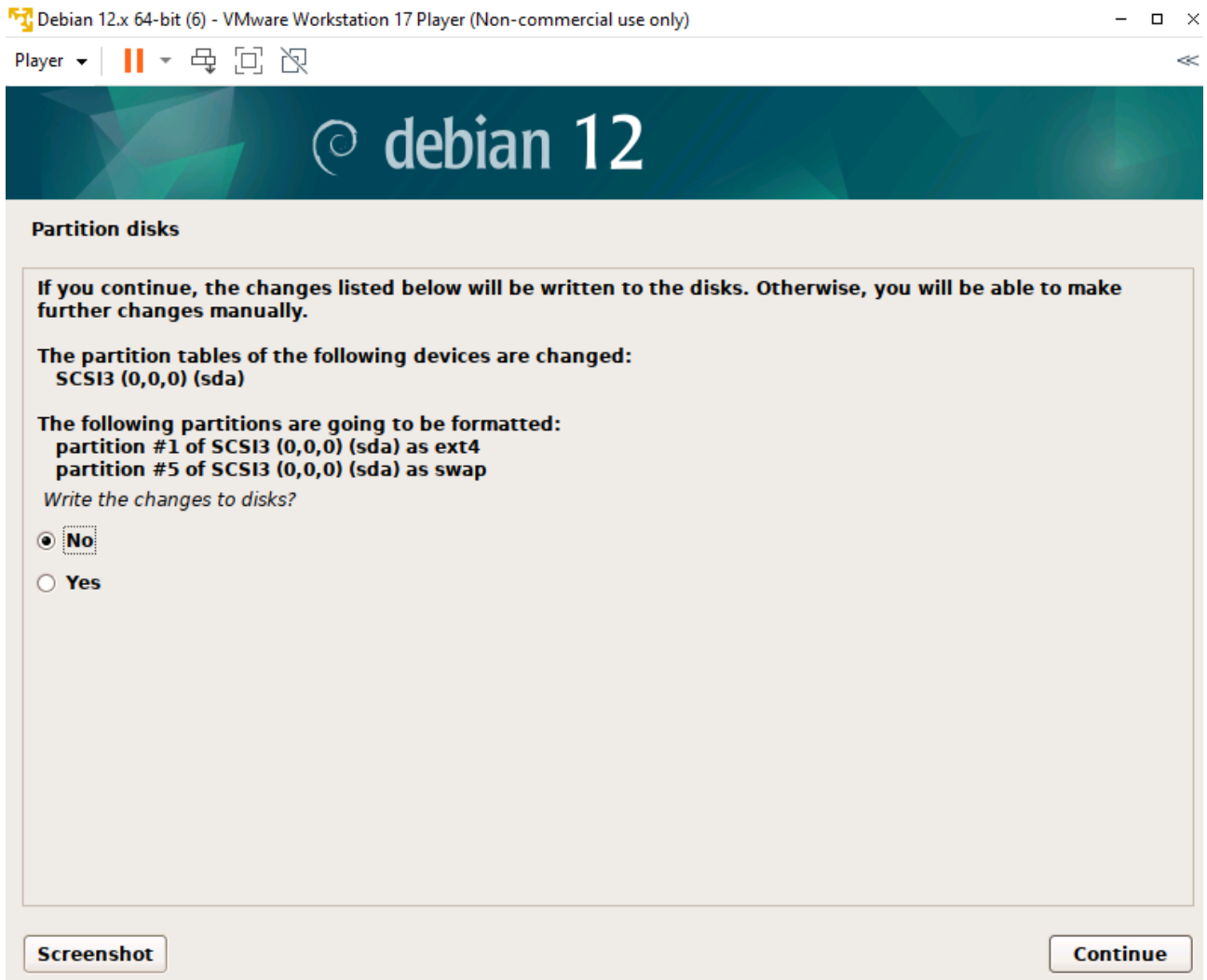
Screenshot

Help

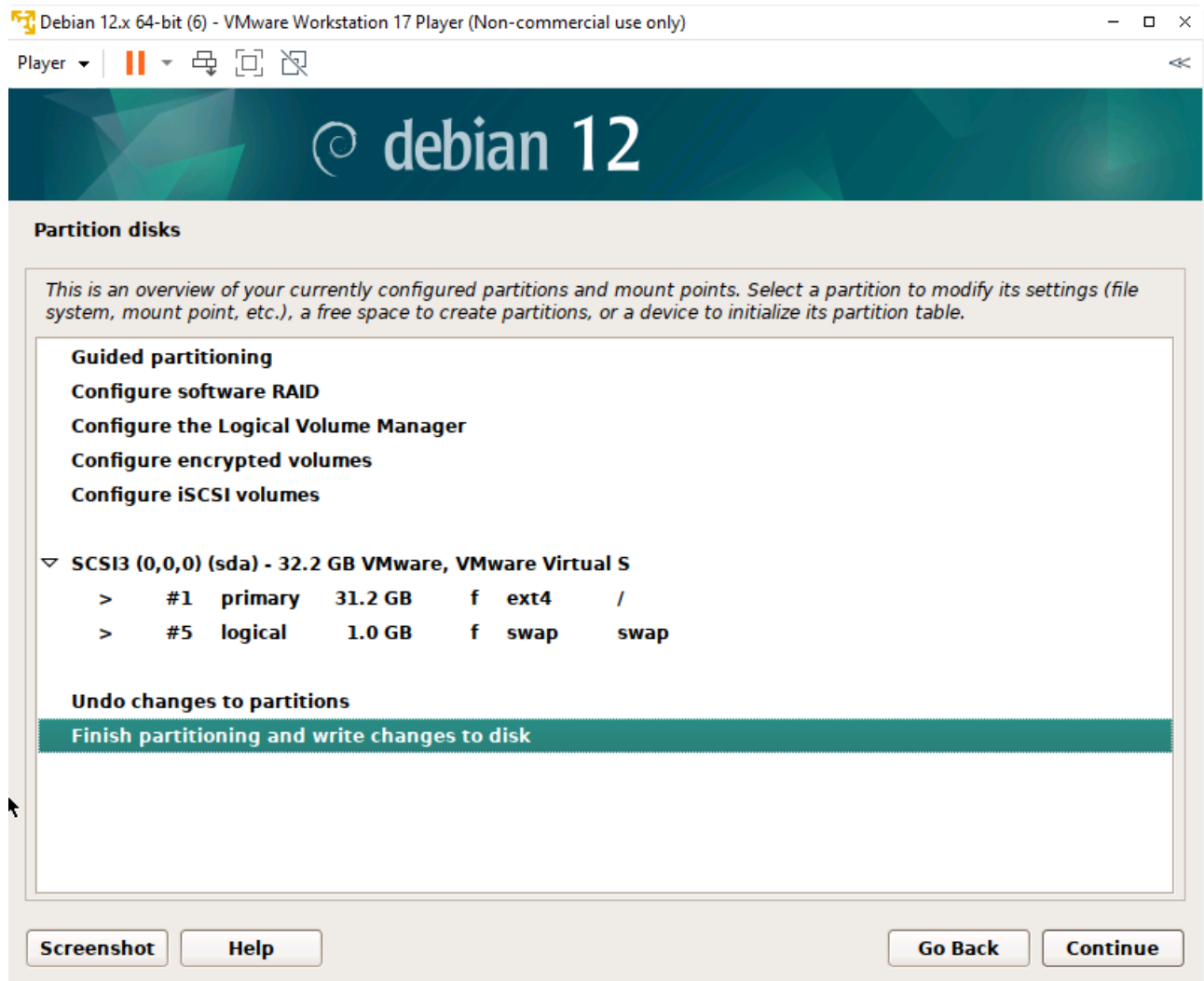
Go Back

Continue

Selecciono Sí en Escribir los cambios a disco



Finalizo la partición



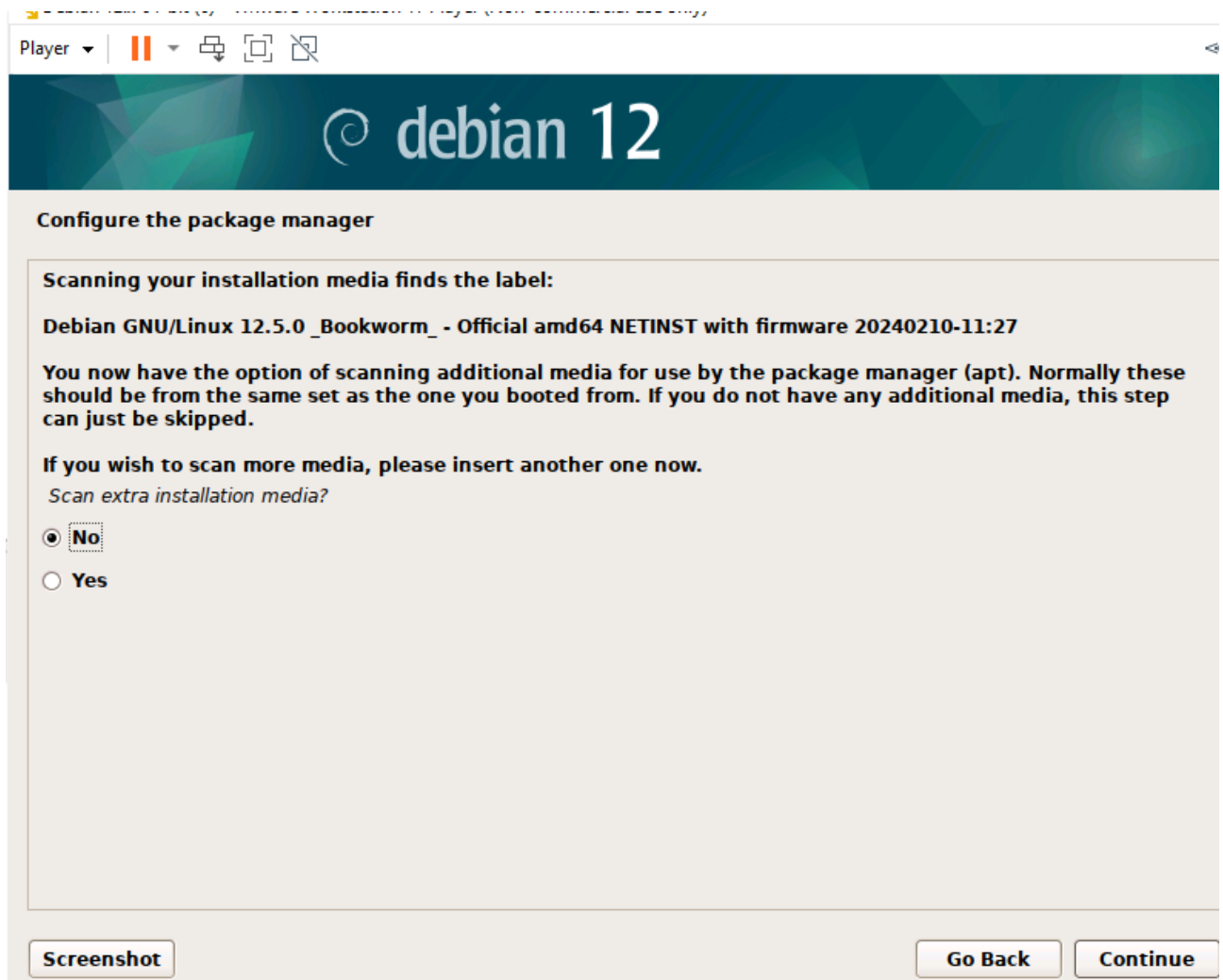
© **debian 12**

Install the base system

Installing the base system

Unpacking linux-image-6.1.0-18-amd64 (amd64)

Selecciono No escaneo medios





Configure the package manager

If you need to use a HTTP proxy to access the outside world, enter the proxy information here. Otherwise, leave this blank.

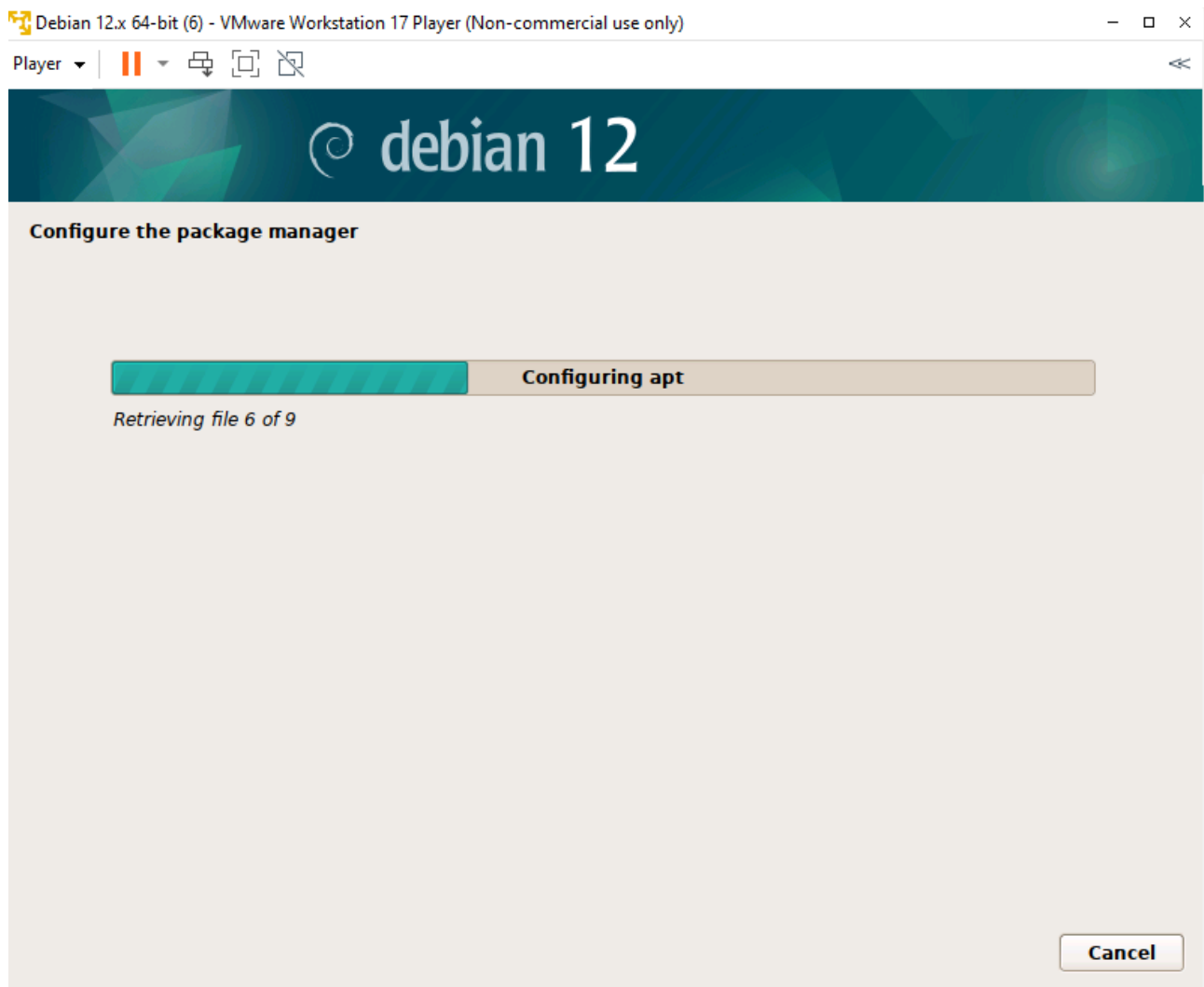
The proxy information should be given in the standard form of "http://[[user][:pass]@]host[:port]/".

HTTP proxy information (blank for none):

Screenshot

Go Back

Continue



selecciono la opción del ssh server, para instalar el servicio ssh



Software selection

At the moment, only the core of the system is installed. To tune the system to your needs, you can choose to install one or more of the following predefined collections of software.

Choose software to install:

- ☒ Debian desktop environment
- ☒ ... GNOME
- ☐ ... Xfce
- ☐ ... GNOME Flashback
- ☐ ... KDE Plasma
- ☐ ... Cinnamon
- ☐ ... MATE
- ☐ ... LXDE
- ☐ ... LXQt
- ☐ web server
- ☒ SSH server
- ☒ standard system utilities

Screenshot

Continue

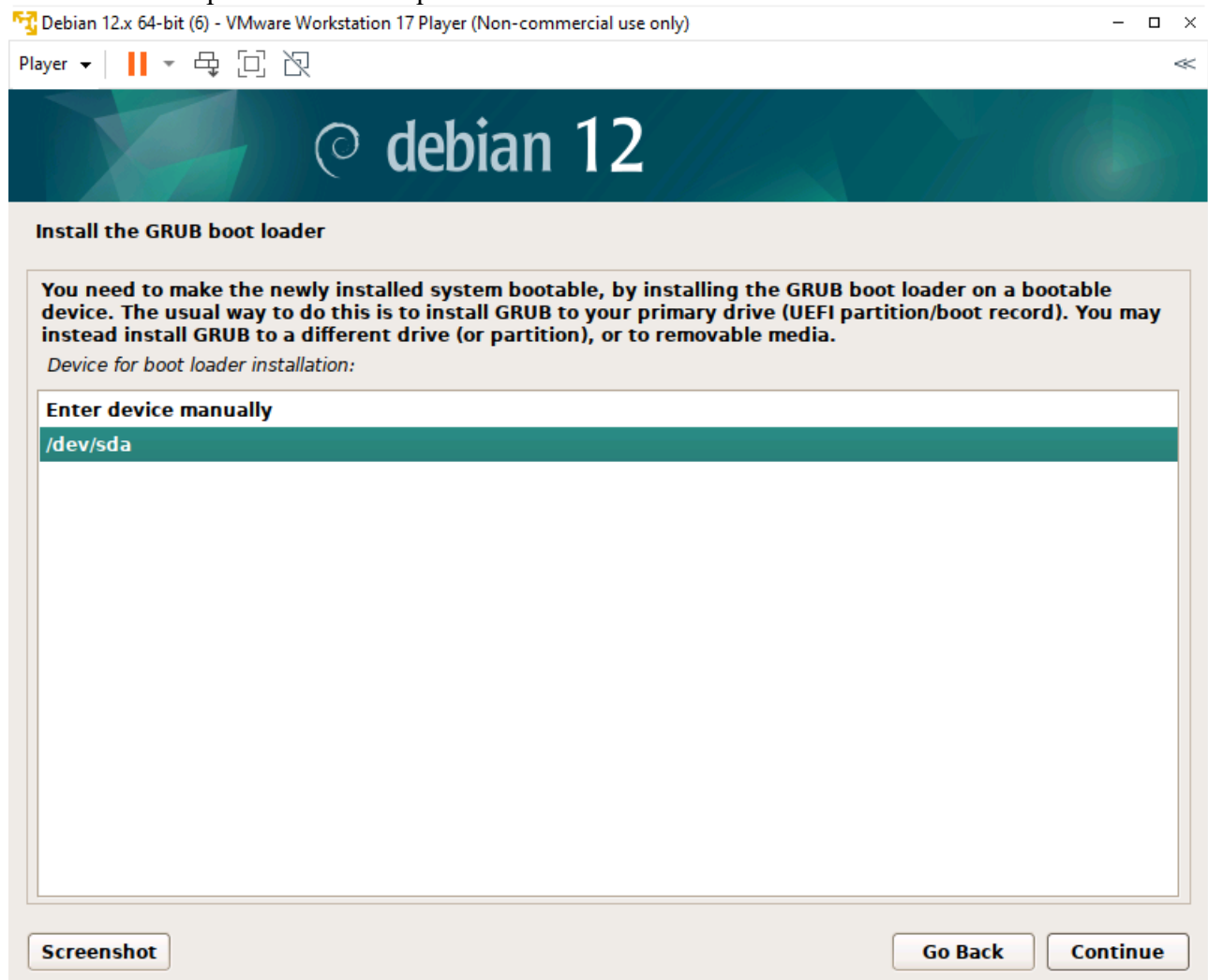


Select and install software

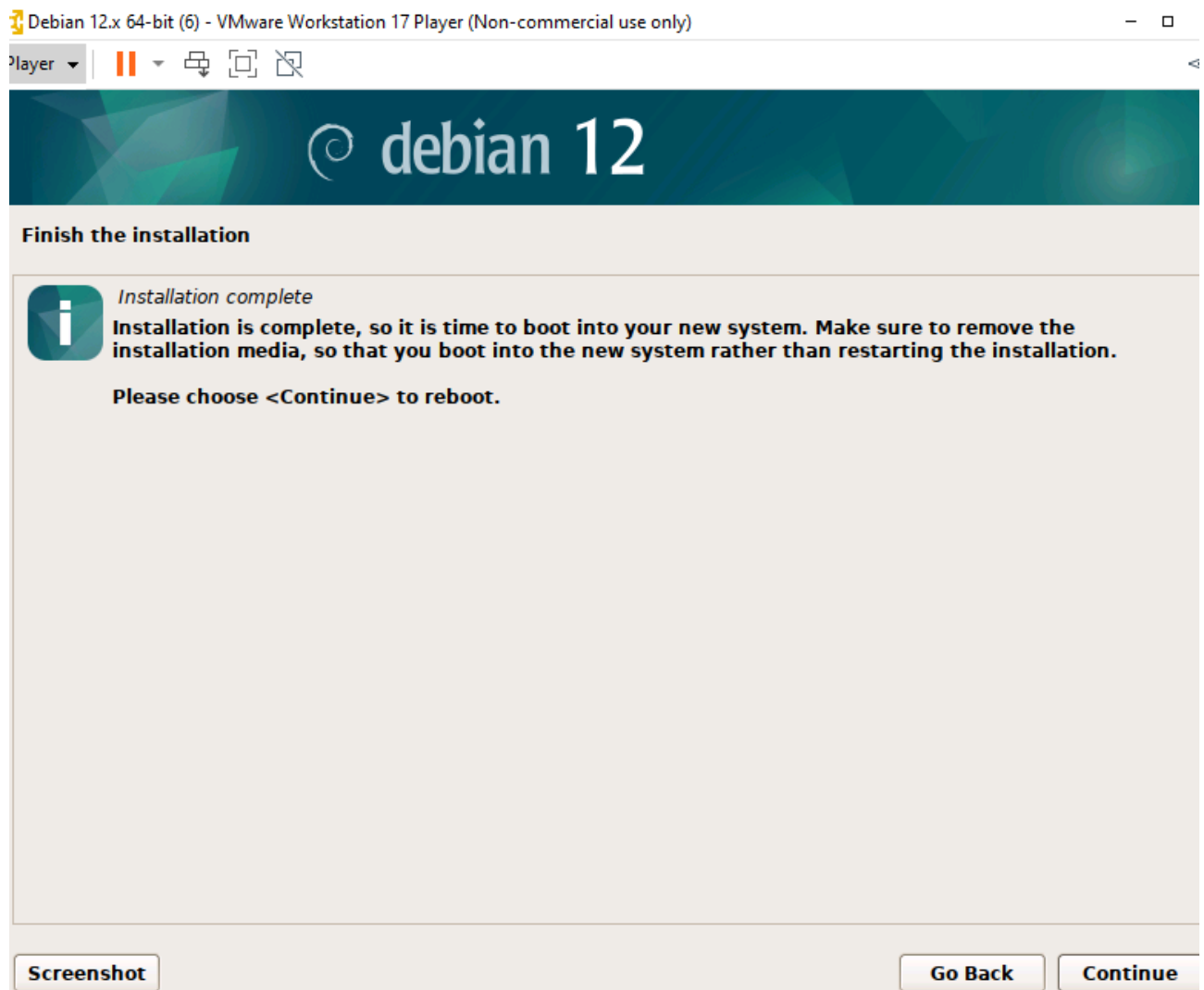


Retrieving file 236 of 1401 (10min 53s remaining)

selecciono el dispositivo de arranque /dev/sda



Hago click en continue para reiniciar el debian



Instalación y configuración de herramientas, para la comunicación entre las dos máquinas, Debian y Windows:

Escribo en la línea de comandos de Debian, para actualizarlo:

```
apt update
```

```
Debian 12.x 64-bit - VMware Workstation 17 Player (Non-commercial use only)
Player ▾ || 🖨 📄 🗑
Activities Terminal Jun 8 10:16 🔍 ☰ ⏻
practica@debian: ~ 🔍 ☰ ⏻
root@debian:/home/practica# apt update
Hit:1 http://deb.debian.org/debian bookworm InRelease
Hit:2 http://deb.debian.org/debian bookworm-updates InRelease
Hit:3 http://security.debian.org/debian-security bookworm-security InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
root@debian:/home/practica#
```

Instalo proxychains y python3

apt proxychains python3

```
root@debian:/home/practica# apt install proxychains python3
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
python3 is already the newest version (3.11.2-1+b1).
python3 set to manually installed.
The following NEW packages will be installed:
  libproxychains3 proxychains
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 24.5 kB of archives.
After this operation, 75.8 kB of additional disk space will be used.
Get:1 http://deb.debian.org/debian bookworm/main amd64 libproxychains3 amd64 3.1-9 [15.4 kB]
Get:2 http://deb.debian.org/debian bookworm/main amd64 proxychains all 3.1-9 [9,140 B]
Fetched 24.5 kB in 0s (228 kB/s)
Selecting previously unselected package libproxychains3:amd64.
(Reading database ... 151581 files and directories currently installed.)
Preparing to unpack .../libproxychains3_3.1-9_amd64.deb ...
Unpacking libproxychains3:amd64 (3.1-9) ...
Selecting previously unselected package proxychains.
Preparing to unpack .../proxychains_3.1-9_all.deb ...
Unpacking proxychains (3.1-9) ...
Setting up libproxychains3:amd64 (3.1-9) ...
Setting up proxychains (3.1-9) ...
update-alternatives: using /usr/bin/proxychains3 to provide /usr/bin/proxychains (proxychains) in auto mode
Processing triggers for man-db (2.11.2-2) ...
Processing triggers for libc-bin (2.36-9+deb12u7) ...
root@debian:/home/practica#
```

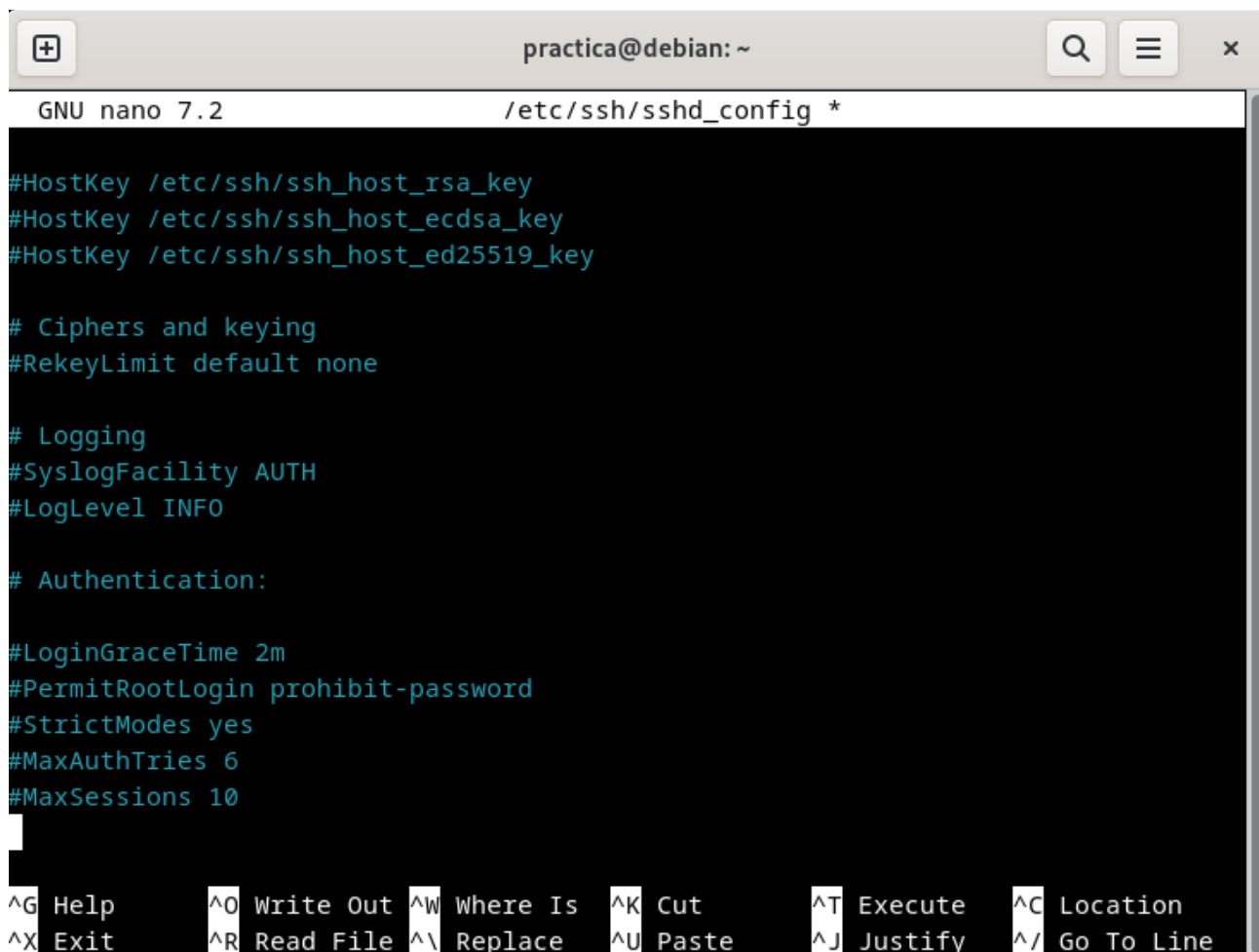
ejecuto el comando `python3 -m http.server 80 -b 127.0.0.1` para levantar el servidor en localhost

```
root@debian:/home/practica# python3 -m http.server 80 -b 127.0.0.1
Serving HTTP on 127.0.0.1 port 80 (http://127.0.0.1:80/) ...
```

instalo el git con apt install git

```
root@debian:/home/practica# apt install git
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  git-man liberror-perl patch
Suggested packages:
  git-daemon-run | git-daemon-sysvinit git-doc git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn ed diffutils-doc
The following NEW packages will be installed:
  git git-man liberror-perl patch
0 upgraded, 4 newly installed, 0 to remove and 0 not upgraded.
Need to get 9,377 kB of archives.
After this operation, 48.0 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://deb.debian.org/debian bookworm/main amd64 liberror-perl all 0.17029-2 [29.0 kB]
Get:2 http://deb.debian.org/debian bookworm/main amd64 git-man all 1:2.39.2-1.1 [2,049 kB]
Get:3 http://deb.debian.org/debian bookworm/main amd64 git amd64 1:2.39.2-1.1 [7,171 kB]
Get:4 http://deb.debian.org/debian bookworm/main amd64 patch amd64 2.7.6-7 [128 kB]
Fetched 9,377 kB in 1s (9,867 kB/s)
Selecting previously unselected package liberror-perl.
(Reading database ... 152247 files and directories currently installed.)
Preparing to unpack .../liberror-perl_0.17029-2_all.deb ...
Unpacking liberror-perl (0.17029-2) ...
Selecting previously unselected package git-man.
Preparing to unpack .../git-man_1%3a2.39.2-1.1_all.deb ...
Unpacking git-man (1:2.39.2-1.1) ...
Selecting previously unselected package git.
Preparing to unpack .../git_1%3a2.39.2-1.1_amd64.deb ...
Unpacking git (1:2.39.2-1.1) ...
Selecting previously unselected package patch.
Preparing to unpack .../patch_2.7.6-7_amd64.deb ...
Unpacking patch (2.7.6-7) ...
Setting up liberror-perl (0.17029-2) ...
Setting up patch (2.7.6-7) ...
Setting up git-man (1:2.39.2-1.1) ...
Setting up git (1:2.39.2-1.1) ...
Processing triggers for man-db (2.11.2-2) ...
root@debian:/home/practica#
```

en la máquina víctima configuro un archivo de ssh



```
practica@debian: ~
GNU nano 7.2 /etc/ssh/sshd_config *

#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
#LogLevel INFO

# Authentication:

#LoginGraceTime 2m
#PermitRootLogin prohibit-password
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 10

^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^_ Go To Line
```

nano /etc/ssh/sshd_config

cambiamos la línea #PermitRootLogin prohibit-password por PermitRootLogin yes

permitimos que el root se pueda logear

```
GNU nano 7.2

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

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

# 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 22
#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
#LogLevel INFO

# Authentication:

#LoginGraceTime 2m
PermitRootLogin yes
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 10

#PubkeyAuthentication yes
```

en AllowTcpForwarding no, quito la almohadilla para descomentar

GNU nano 7.2

```
UsePAM yes

#AllowAgentForwarding yes
#AllowTcpForwarding yes
#GatewayPorts no
X11Forwarding yes
#X11DisplayOffset 10
#X11UseLocalhost yes
#PermitTTY yes
PrintMotd no
#PrintLastLog yes
#TCPKeepAlive yes
#PermitUserEnvironment no
#Compression delayed
#ClientAliveInterval 0
#ClientAliveCountMax 3
#UseDNS no
#PidFile /run/sshd.pid
#MaxStartups 10:30:100
#PermitTunnel no
#ChrootDirectory none
#VersionAddendum none

# no default banner path
#Banner none


# 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
```

cambiamos a la carpeta /tmp

cd /tmp



```
practica@debian:~$ su root
Password:
root@debian:/home/practica# cd /tmp
root@debian:/tmp#
```

creo un fichero test

echo "test" > test.txt

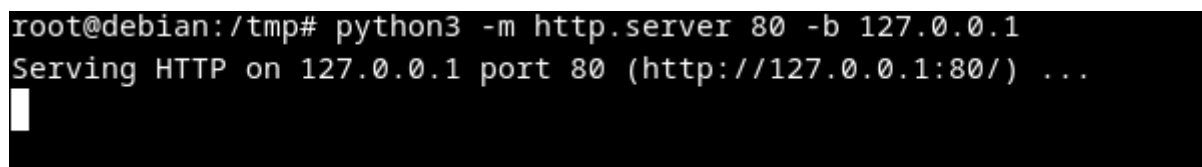
compruebo que se ha creado



```
root@debian:/tmp# ls
systemd-private-eb0fc5e2a39646ae8e60c69b4647fdf2-colord.service-28w6aY  systemd-private-eb0fc5e2a39646ae8e60c69b4647fdf2-power-profiles-daemon.service-YD96z3  test.txt
systemd-private-eb0fc5e2a39646ae8e60c69b4647fdf2-fwupd.service-GAlt67      systemd-private-eb0fc5e2a39646ae8e60c69b4647fdf2-switcheroo-control.service-BhKubR    tracker-extract-3-files.1000
systemd-private-eb0fc5e2a39646ae8e60c69b4647fdf2-geoclue.service-FhjNIM     systemd-private-eb0fc5e2a39646ae8e60c69b4647fdf2-systemd-logind.service-qE5ats        tracker-extract-3-files.113
systemd-private-eb0fc5e2a39646ae8e60c69b4647fdf2-low-memory-monitor.service-TRU5pe  systemd-private-eb0fc5e2a39646ae8e60c69b4647fdf2-systemd-timesyncd.service-dwOf6X      VMWareDnD
systemd-private-eb0fc5e2a39646ae8e60c69b4647fdf2-ModemManager.service-KYEII9     systemd-private-eb0fc5e2a39646ae8e60c69b4647fdf2-upower.service-EJXp0D              vmware-root_397-1848905195
root@debian:/tmp#
```

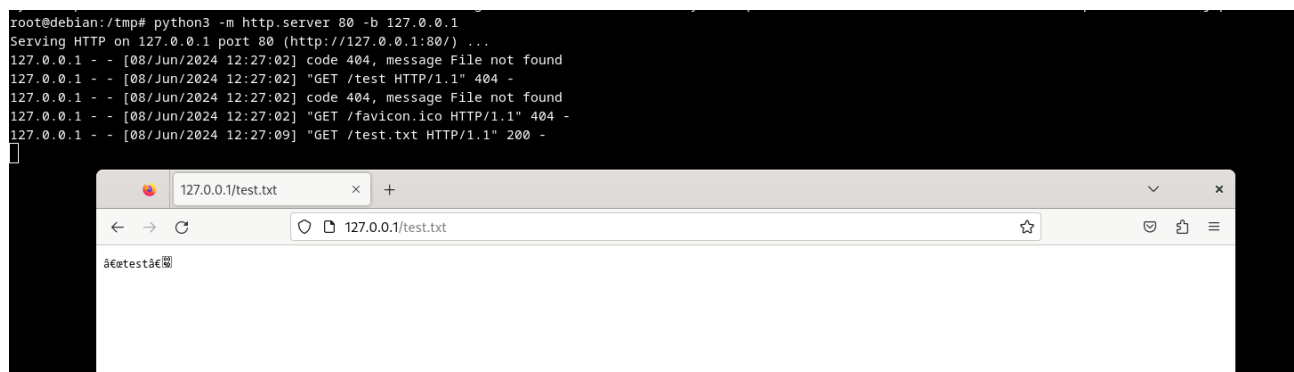
levanto el servidor:

python3 -m http.server 80 -b 127.0.0.1



```
root@debian:/tmp# python3 -m http.server 80 -b 127.0.0.1
Serving HTTP on 127.0.0.1 port 80 (http://127.0.0.1:80/) ...
```

me voy al navegador a la dirección 127.0.0.1/test.txt



```
root@debian:/tmp# python3 -m http.server 80 -b 127.0.0.1
Serving HTTP on 127.0.0.1 port 80 (http://127.0.0.1:80/) ...
127.0.0.1 - - [08/Jun/2024 12:27:02] code 404, message File not found
127.0.0.1 - - [08/Jun/2024 12:27:02] "GET /test HTTP/1.1" 404 -
127.0.0.1 - - [08/Jun/2024 12:27:02] code 404, message File not found
127.0.0.1 - - [08/Jun/2024 12:27:02] "GET /favicon.ico HTTP/1.1" 404 -
127.0.0.1 - - [08/Jun/2024 12:27:09] "GET /test.txt HTTP/1.1" 200 -
```

127.0.0.1/test.txt

test

El objetivo es, desde otra máquina, poder leer este fichero test.txt

en otra terminal, reinicio el servicio ssh, porque he modificado la configuración

hago un systemctl stop sshd y un systemctl start sshd

```
root@debian:/home/practica# systemctl start sshd
root@debian:/home/practica#
```

hago un apt install net-tools para instalación herramientas de internet y poder coger la ip

```
root@debian:/home/practica# apt install net-tools
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  net-tools
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 243 kB of archives.
After this operation, 1,001 kB of additional disk space will be used.
Get:1 http://deb.debian.org/debian bookworm/main amd64 net-tools amd64 2.10-0.1 [243 kB]
Fetched 243 kB in 0s (1,042 kB/s)
Selecting previously unselected package net-tools.
(Reading database ... 155419 files and directories currently installed.)
Preparing to unpack .../net-tools_2.10-0.1_amd64.deb ...
Unpacking net-tools (2.10-0.1) ...
Setting up net-tools (2.10-0.1) ...
Processing triggers for man-db (2.11.2-2) ...
root@debian:/home/practica#
```

hago un export PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin

```
root@debian:/home/practica# export PATH=$PATH:/usr/sbin
root@debian:/home/practica#
```

ahora sí puedo copiar la ip: ifconfig

```

root@debian:/home/practica# ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.79.134 netmask 255.255.255.0 broadcast 192.168.79.255
    inet6 fe80::20c:29ff:feda:45b3 prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:da:45:b3 txqueuelen 1000 (Ethernet)
    RX packets 10300 bytes 12938960 (12.3 MiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 3812 bytes 313430 (306.0 KiB)
    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 74 bytes 7888 (7.7 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 74 bytes 7888 (7.7 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@debian:/home/practica#

```

con `service sshd status`, compruebo que está levantado el servicio ssh, estando el active en verde

```

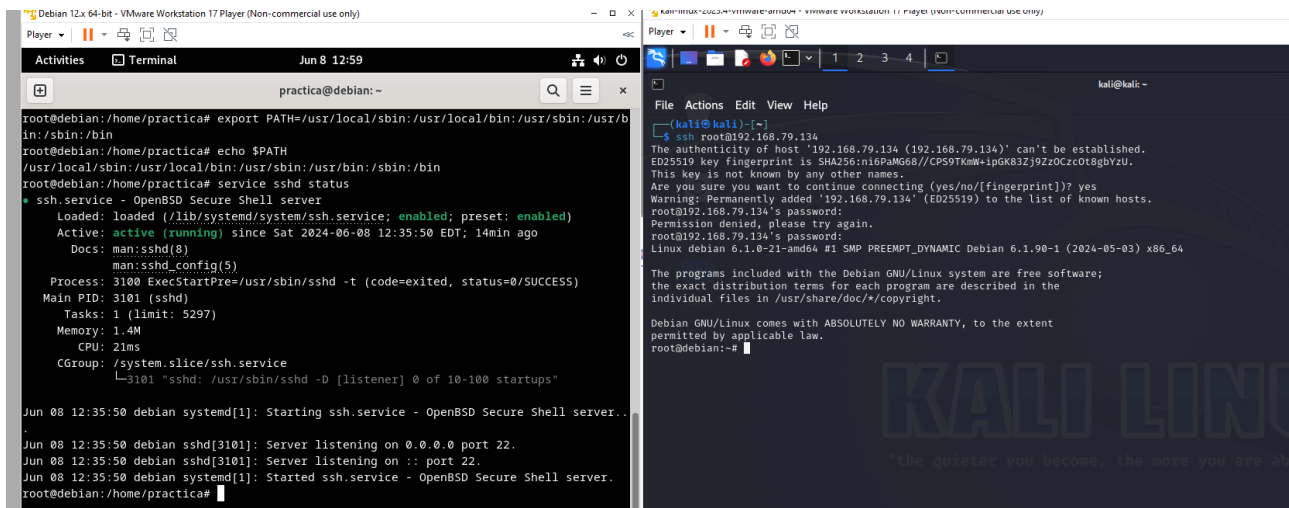
root@debian:/home/practica# service sshd status
• ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; preset: enabled)
   Active: active (running) since Sat 2024-06-08 12:35:50 EDT; 14min ago
     Docs: man:sshd(8)
           man:sshd_config(5)
  Process: 3100 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
 Main PID: 3101 (sshd)
    Tasks: 1 (limit: 5297)
   Memory: 1.4M
      CPU: 21ms
   CGroup: /system.slice/ssh.service
           └─3101 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"

Jun 08 12:35:50 debian systemd[1]: Starting ssh.service - OpenBSD Secure Shell server...
Jun 08 12:35:50 debian sshd[3101]: Server listening on 0.0.0.0 port 22.
Jun 08 12:35:50 debian sshd[3101]: Server listening on :: port 22.
Jun 08 12:35:50 debian systemd[1]: Started ssh.service - OpenBSD Secure Shell server.
root@debian:/home/practica#

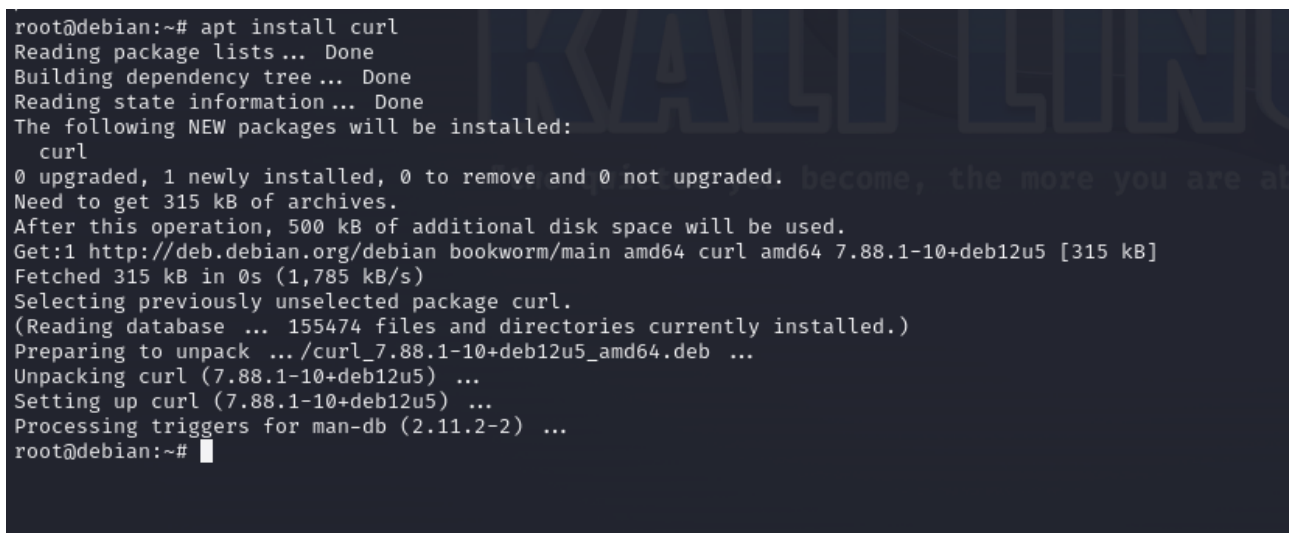
```

desde otra máquina pongo `ssh root@192.168.79.134`

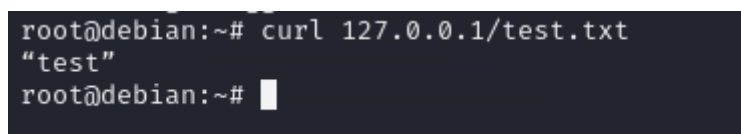
compruebo que la máquina atacante (Debian) se ha metido en la víctima (kali)



hago un apt install curl



hago un curl 127.0.0.1/test.txt



escribo exit para cerrar la conexión

