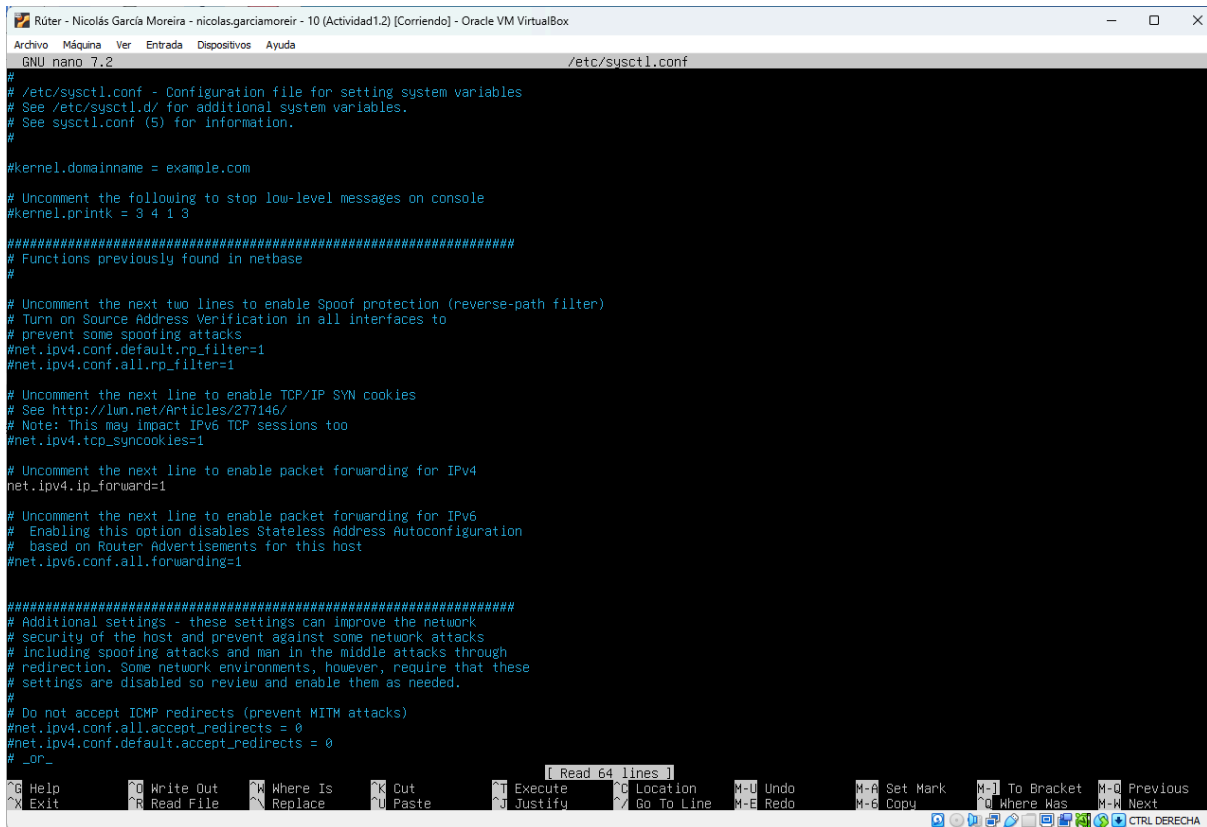


Actividad 1.3: R ter virtual: enrutamiento temporal.

1. En R ter, activa el reenv o de paquetes y el servicio NAT. Captura:
 - a. Contenido del archivo `/etc/sysctl.conf`



```
#
# /etc/sysctl.conf - Configuration file for setting system variables
# See /etc/sysctl.d/ for additional system variables.
# See sysctl.conf (5) for information.
#

#kernel.domainname = example.com

# Uncomment the following to stop low-level messages on console
#kernel.printk = 3 4 1 3

#####
# Functions previously found in netbase
#

# Uncomment the next two lines to enable Spoof protection (reverse-path filter)
# Turn on Source Address Verification in all interfaces to
# prevent some spoofing attacks
#net.ipv4.conf.default.rp_filter=1
#net.ipv4.conf.all.rp_filter=1

# Uncomment the next line to enable TCP/IP SYN cookies
# See http://lwn.net/Articles/277146/
# Note: This may impact IPv6 TCP sessions too
#net.ipv4.tcp_syncookies=1

# Uncomment the next line to enable packet forwarding for IPv4
net.ipv4.ip_forward=1

# Uncomment the next line to enable packet forwarding for IPv6
# Enabling this option disables Stateless Address Autoconfiguration
# based on Router Advertisements for this host
#net.ipv6.conf.all.forwarding=1

#####
# Additional settings - these settings can improve the network
# security of the host and prevent against some network attacks
# including spoofing attacks and man in the middle attacks through
# redirection. Some network environments, however, require that these
# settings are disabled so review and enable them as needed.
#
# Do not accept ICMP redirects (prevent MITM attacks)
#net.ipv4.conf.all.accept_redirects = 0
#net.ipv4.conf.default.accept_redirects = 0
#_or_

[ Read 64 lines ]
Help      Write Out  Where Is  Cut       Execute   Location  M-U      Set Mark  M-J      To Bracket M-Q      Previous
Exit      Read File  Replace   U Paste   Justify   Go To Line M-E      Undo      M-F      Copy      M-W      Next
CTRL DERECHA
```

- b. Resultado de ejecutar `ip route show`

```
Rúter - Nicolás García Moreira - nicolas.garciamoreir - 10 (Actividad1.2) [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
root@ubuntu:~# ip route show
default via 10.0.2.2 dev enp0s3 proto dhcp src 10.0.2.15 metric 100
10.0.2.0/24 dev enp0s3 proto kernel scope link src 10.0.2.15 metric 100
10.0.2.2 dev enp0s3 proto dhcp scope link src 10.0.2.15 metric 100
10.42.68.253 via 10.0.2.2 dev enp0s3 proto dhcp src 10.0.2.15 metric 100
10.42.68.254 via 10.0.2.2 dev enp0s3 proto dhcp src 10.0.2.15 metric 100
172.16.10.0/24 dev enp0s8 proto kernel scope link src 172.16.10.1
root@ubuntu:~#
```

c. Resultado de ejecutar `route -n`

```
Rúter - Nicolás García Moreira - nicolas.garciamoreir - 10 (Actividad1.2) [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
root@ubuntu:~# route -n
Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
0.0.0.0 10.0.2.2 0.0.0.0 UG 100 0 0 enp0s3
10.0.2.0 0.0.0.0 255.255.255.0 U 100 0 0 enp0s3
10.0.2.2 0.0.0.0 255.255.255.255 UH 100 0 0 enp0s3
10.42.68.253 10.0.2.2 255.255.255.255 UGH 100 0 0 enp0s3
10.42.68.254 10.0.2.2 255.255.255.255 UGH 100 0 0 enp0s3
172.16.10.0 0.0.0.0 255.255.255.0 U 0 0 0 enp0s8
root@ubuntu:~#
```

d. Comando `iptables` que permite ver las reglas de reenvío.

```
Rúter - Nicolás García Moreira - nicolas.garciamoreir - 10 (Actividad1.2) [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
root@ubuntu:~# iptables -L
Chain INPUT (policy ACCEPT)
target prot opt source destination

Chain FORWARD (policy ACCEPT)
target prot opt source destination
ACCEPT all -- anywhere anywhere

Chain OUTPUT (policy ACCEPT)
target prot opt source destination
root@ubuntu:~#
```

e. Comando iptables que permite ver las reglas NAT.

```
Rúter - Nicolás García Moreira - nicolas.garciamoreir - 10 (Actividad1.2) [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
root@ubuntu:~# iptables -t nat -L
Chain PREROUTING (policy ACCEPT)
target prot opt source destination

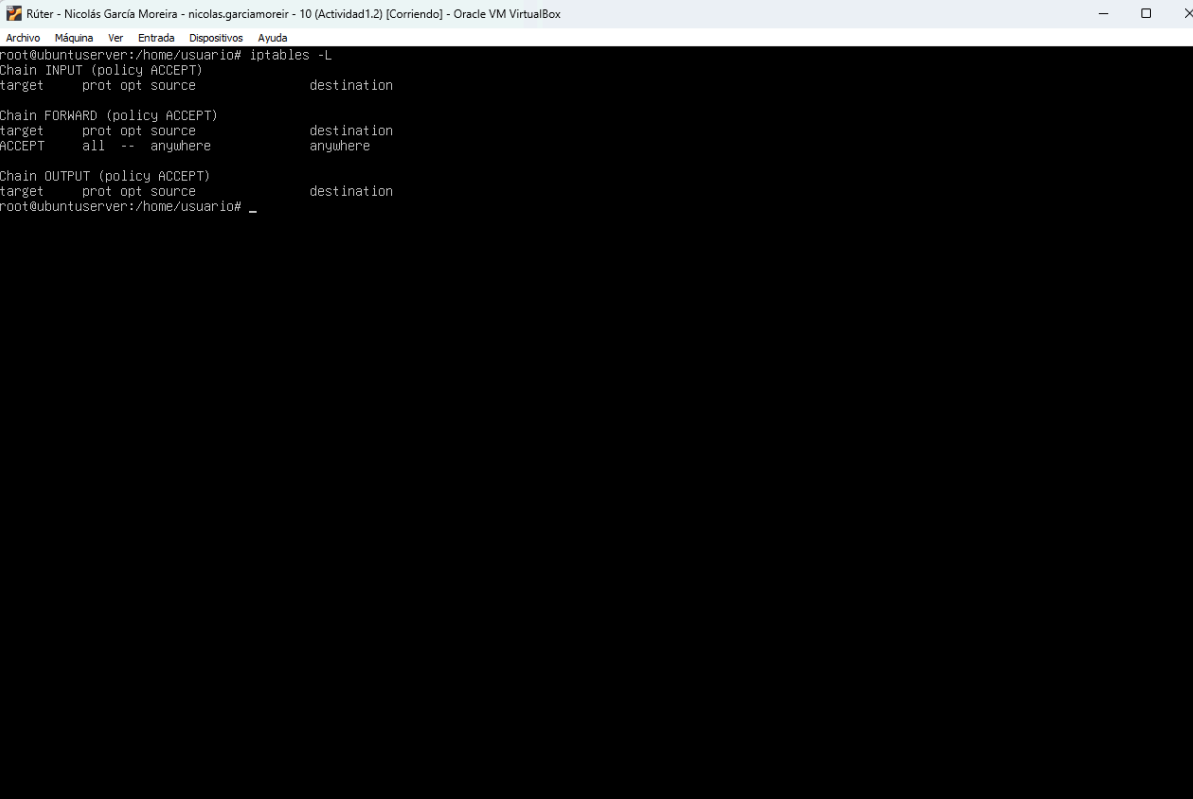
Chain INPUT (policy ACCEPT)
target prot opt source destination

Chain OUTPUT (policy ACCEPT)
target prot opt source destination

Chain POSTROUTING (policy ACCEPT)
target prot opt source destination
MASQUERADE all -- 172.16.10.0/24 anywhere
root@ubuntu:~#
```

2. Reinicia el R ter y sin hacer nada antes, captura:

- Comando iptables que permite ver las reglas de reenv o.

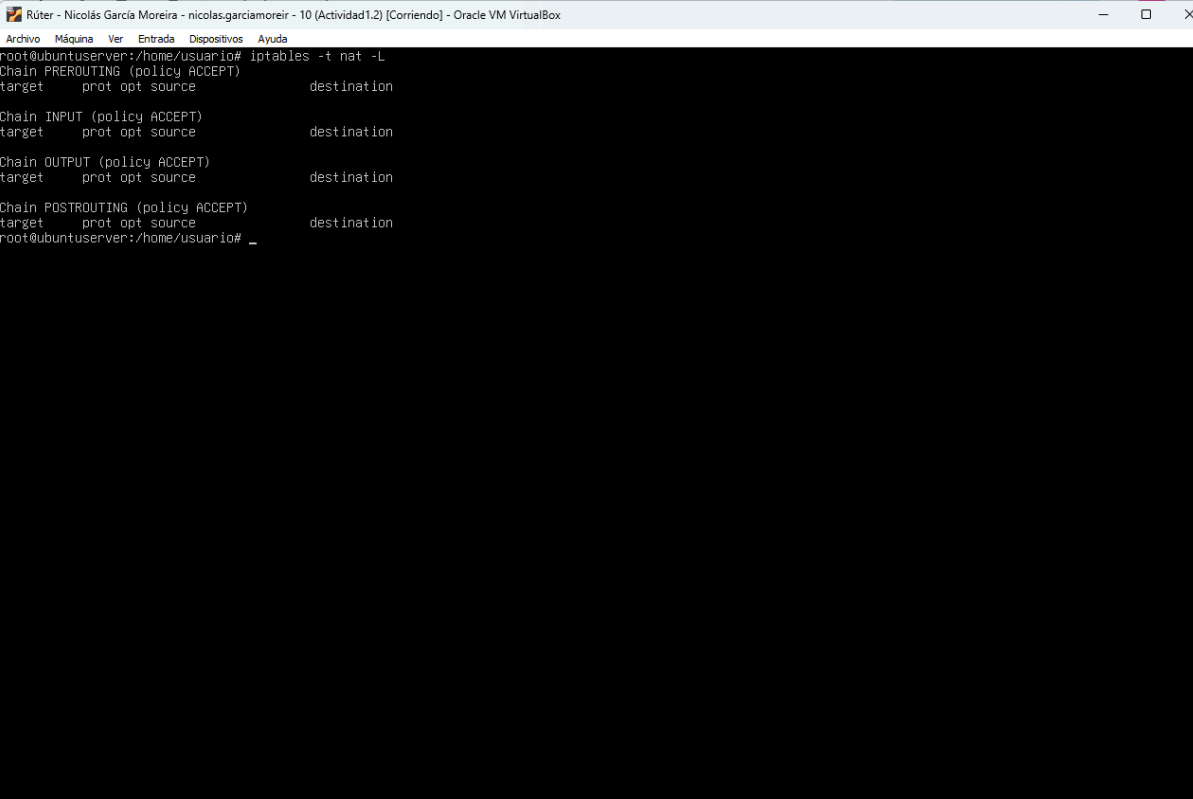


```
R ter - Nicol s Garc a Moreira - nicolas.garciamoreir - 10 (Actividad1.2) [Corriendo] - Oracle VM VirtualBox
Archivo M quina Ver Entrada Dispositivos Ayuda
root@ubuntu:~# iptables -L
Chain INPUT (policy ACCEPT)
target prot opt source destination

Chain FORWARD (policy ACCEPT)
target prot opt source destination

Chain OUTPUT (policy ACCEPT)
target prot opt source destination
root@ubuntu:~#
```

- Comando iptables que permite ver las reglas NAT.



```
R ter - Nicol s Garc a Moreira - nicolas.garciamoreir - 10 (Actividad1.2) [Corriendo] - Oracle VM VirtualBox
Archivo M quina Ver Entrada Dispositivos Ayuda
root@ubuntu:~# iptables -t nat -L
Chain PREROUTING (policy ACCEPT)
target prot opt source destination

Chain INPUT (policy ACCEPT)
target prot opt source destination

Chain OUTPUT (policy ACCEPT)
target prot opt source destination

Chain POSTROUTING (policy ACCEPT)
target prot opt source destination
root@ubuntu:~#
```

- c. Explica brevemente por qué no coinciden las capturas con la pregunta anterior.

Pasa eso, por culpa de hacer un reinicio, ya que los comandos solo se guardan mientras esté la máquina encendida