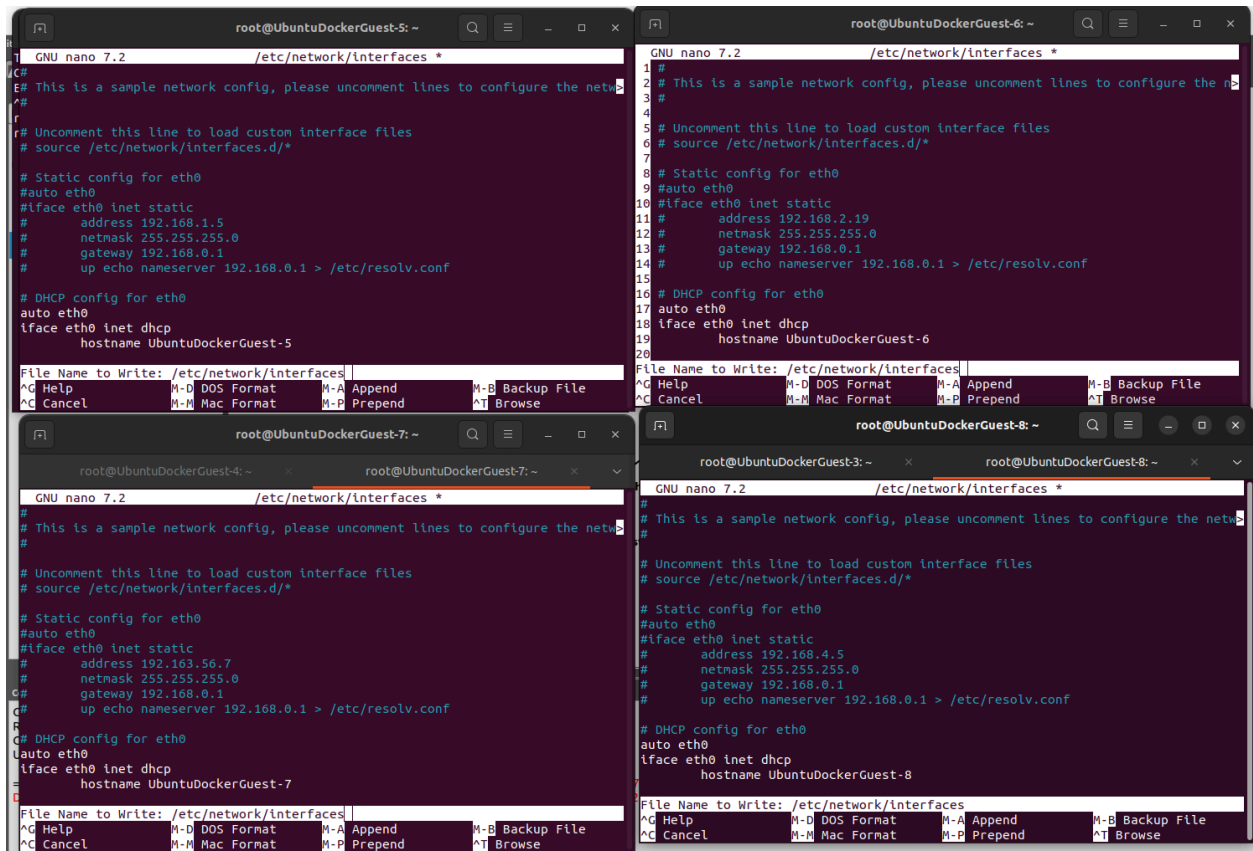h1, h2, h3, h4 (enabling DHCP)

```
root@UbuntuDockerGuest-1: ~

GNU nano 7.2          /etc/network/interfaces *
#
# This is a sample network config, please uncomment lines to configure the netw>
#
# Uncomment this line to load custom interface files
# source /etc/network/interfaces.d/*

# Static config for eth0
#auto eth0
#iface eth0 inet static
#        address 192.168.1.2
#        netmask 255.255.255.0
#        gateway 192.168.0.1
#        up echo nameserver 192.168.0.1 > /etc/resolv.conf

# DHCP config for eth0
auto eth0
iface eth0 inet dhcp
        hostname UbuntuDockerGuest-1

File Name to Write: /etc/network/interfaces
^G Help        M-D DOS Format   M-A Append    M-B Backup File
^C Cancel      M-M Mac Format   M-P Prepend   ^T Browse
```

```
root@UbuntuDockerGuest-2: ~

GNU nano 7.2          /etc/network/interfaces *
#
# This is a sample network config, please uncomment lines to configure the netw>
#
# Uncomment this line to load custom interface files
# source /etc/network/interfaces.d/*

# Static config for eth0
#auto eth0
#iface eth0 inet static
#        address 192.168.2.2
#        netmask 255.255.255.0
#        gateway 192.168.0.1
#        up echo nameserver 192.168.0.1 > /etc/resolv.conf

# DHCP config for eth0
auto eth0
iface eth0 inet dhcp
        hostname UbuntuDockerGuest-2

File Name to Write: /etc/network/interfaces
^G Help        M-D DOS Format   M-A Append    M-B Backup File
^C Cancel      M-M Mac Format   M-P Prepend   ^T Browse
```

```
root@UbuntuDockerGuest-3: ~
root@UbuntuDockerGuest-3: ~      root@UbuntuDockerGuest-8: ~

GNU nano 7.2          /etc/network/interfaces *
#
# This is a sample network config, please uncomment lines to configure the netw>
#
# Uncomment this line to load custom interface files
# source /etc/network/interfaces.d/*

# Static config for eth0
#auto eth0
#iface eth0 inet static
#        address 192.163.2.4
#        netmask 255.255.252.0
#        gateway 192.168.0.1
#        up echo nameserver 192.168.0.1 > /etc/resolv.conf

# DHCP config for eth0
auto eth0
iface eth0 inet dhcp
        hostname UbuntuDockerGuest-3

File Name to Write: /etc/network/interfaces
^G Help        M-D DOS Format   M-A Append    M-B Backup File
^C Cancel      M-M Mac Format   M-P Prepend   ^T Browse
```
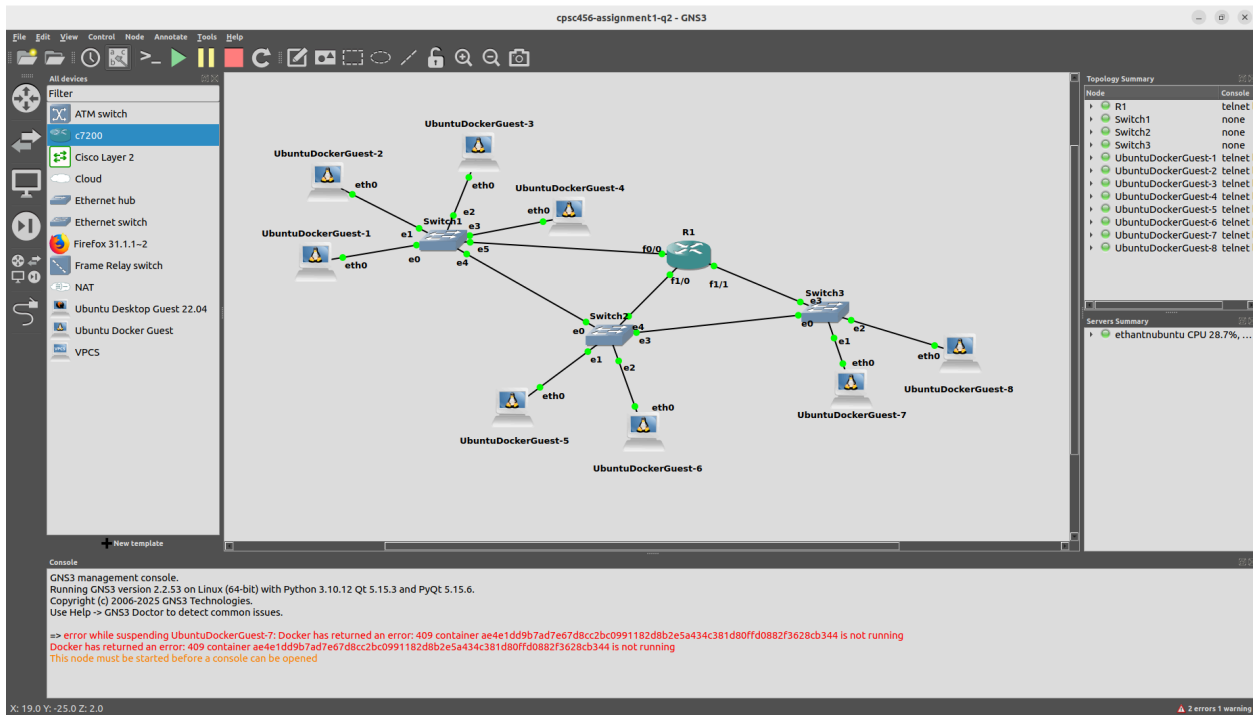
```
root@UbuntuDockerGuest-4: ~
root@UbuntuDockerGuest-4: ~      root@UbuntuDockerGuest-7: ~

GNU nano 7.2          /etc/network/interfaces *
#
# This is a sample network config, please uncomment lines to configure the netw>
#
# Uncomment this line to load custom interface files
# source /etc/network/interfaces.d/*

# Static config for eth0
#auto eth0
#iface eth0 inet static
#        address 192.168.2.5
#        netmask 255.255.255.0
#        gateway 192.168.0.1
#        up echo nameserver 192.168.0.1 > /etc/resolv.conf

# DHCP config for eth0
auto eth0
iface eth0 inet dhcp
        hostname UbuntuDockerGuest-4

File Name to Write: /etc/network/interfaces
^G Help        M-D DOS Format   M-A Append    M-B Backup File
^C Cancel      M-M Mac Format   M-P Prepend   ^T Browse
```

h5, h6, h7, h8 (enabling DHCP)

UbuntuDockerGuest-5

```
  GNU nano 7.2              /etc/network/interfaces *
# This is a sample network config, please uncomment lines to configure the netw>
#
# Uncomment this line to load custom interface files
# source /etc/network/interfaces.d/*

# Static config for eth0
#auto eth0
#iface eth0 inet static
#       address 192.168.1.5
#       netmask 255.255.255.0
#       gateway 192.168.0.1
#       up echo nameserver 192.168.0.1 > /etc/resolv.conf

# DHCP config for eth0
auto eth0
iface eth0 inet dhcp
        hostname UbuntuDockerGuest-5

File Name to Write: /etc/network/interfaces
^G Help        M-D DOS Format   M-A Append    M-B Backup File
^C Cancel      M-M Mac Format   M-P Prepend   ^T Browse
```
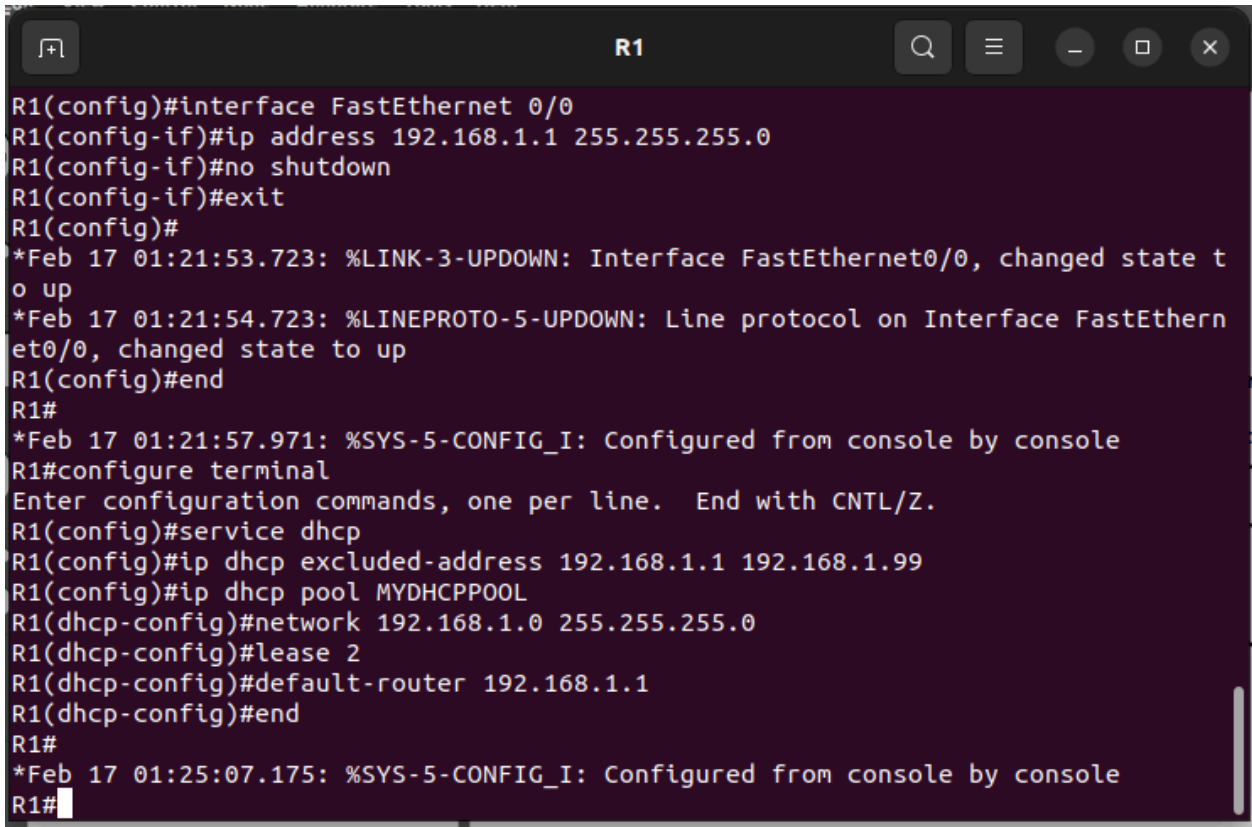
UbuntuDockerGuest-6

```
  GNU nano 7.2              /etc/network/interfaces *
#
# This is a sample network config, please uncomment lines to configure the n>
#
# Uncomment this line to load custom interface files
# source /etc/network/interfaces.d/*

# Static config for eth0
#auto eth0
#iface eth0 inet static
#       address 192.168.2.19
#       netmask 255.255.255.0
#       gateway 192.168.0.1
#       up echo nameserver 192.168.0.1 > /etc/resolv.conf

# DHCP config for eth0
auto eth0
iface eth0 inet dhcp
        hostname UbuntuDockerGuest-6

File Name to Write: /etc/network/interfaces
^G Help        M-D DOS Format   M-A Append    M-B Backup File
^C Cancel      M-M Mac Format   M-P Prepend   ^T Browse
```

UbuntuDockerGuest-7

```
  GNU nano 7.2              /etc/network/interfaces *
#
# This is a sample network config, please uncomment lines to configure the netw>
#
# Uncomment this line to load custom interface files
# source /etc/network/interfaces.d/*

# Static config for eth0
#auto eth0
#iface eth0 inet static
#       address 192.163.56.7
#       netmask 255.255.255.0
#       gateway 192.168.0.1
#       up echo nameserver 192.168.0.1 > /etc/resolv.conf

# DHCP config for eth0
auto eth0
iface eth0 inet dhcp
        hostname UbuntuDockerGuest-7

File Name to Write: /etc/network/interfaces
^G Help        M-D DOS Format   M-A Append    M-B Backup File
^C Cancel      M-M Mac Format   M-P Prepend   ^T Browse
```

UbuntuDockerGuest-8

```
  GNU nano 7.2              /etc/network/interfaces *
#
# This is a sample network config, please uncomment lines to configure the netw>
#
# Uncomment this line to load custom interface files
# source /etc/network/interfaces.d/*

# Static config for eth0
#auto eth0
#iface eth0 inet static
#       address 192.168.4.5
#       netmask 255.255.255.0
#       gateway 192.168.0.1
#       up echo nameserver 192.168.0.1 > /etc/resolv.conf

# DHCP config for eth0
auto eth0
iface eth0 inet dhcp
        hostname UbuntuDockerGuest-8

File Name to Write: /etc/network/interfaces
^G Help        M-D DOS Format   M-A Append    M-B Backup File
^C Cancel      M-M Mac Format   M-P Prepend   ^T Browse
```

7200 cisco router

Set the IP address of the interface and enable the interface to act as a DHCP server.

```
R1(config)#interface FastEthernet 0/0
R1(config-if)#ip address 192.168.1.1 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#
*Feb 17 01:21:53.723: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state t
o up
*Feb 17 01:21:54.723: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et0/0, changed state to up
R1(config)#end
R1#
*Feb 17 01:21:57.971: %SYS-5-CONFIG_I: Configured from console by console
R1#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#service dhcp
R1(config)#ip dhcp excluded-address 192.168.1.1 192.168.1.99
R1(config)#ip dhcp pool MYDHCPPOOL
R1(dhcp-config)#network 192.168.1.0 255.255.255.0
R1(dhcp-config)#lease 2
R1(dhcp-config)#default-router 192.168.1.1
R1(dhcp-config)#end
R1#
*Feb 17 01:25:07.175: %SYS-5-CONFIG_I: Configured from console by console
R1#
```

h1

```
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
UbuntuDockerGuest-1 console is now available... Press RETURN to get started.
root@UbuntuDockerGuest-1:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.1.2  netmask 255.255.255.0  broadcast 0.0.0.0
        inet6 fe80::42:faff:fe3e:f200  prefixlen 64  scopeid 0x20<link>
        ether 02:42:fa:3e:f2:00  txqueuelen 1000  (Ethernet)
        RX packets 63  bytes 5082 (5.0 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 9  bytes 726 (726.0 B)
        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 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

root@UbuntuDockerGuest-1:~#
```

h2

h3

root@UbuntuDockerGuest-3: ~

root@UbuntuDockerG...   ×   root@UbuntuDockerG...   ×   root@UbuntuDockerG...   ×

```
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
UbuntuDockerGuest-3 console is now available... Press RETURN to get started.
root@UbuntuDockerGuest-3:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.163.2.4  netmask 255.255.252.0  broadcast 0.0.0.0
        inet6 fe80::42:c1ff:fe5b:ee00  prefixlen 64  scopeid 0x20<link>
        ether 02:42:c1:5b:ee:00  txqueuelen 1000  (Ethernet)
        RX packets 77  bytes 6062 (6.0 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 11  bytes 866 (866.0 B)
        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 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

root@UbuntuDockerGuest-3:~#
```

h4

```
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
UbuntuDockerGuest-4 console is now available... Press RETURN to get started.
root@UbuntuDockerGuest-4:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.2.5  netmask 255.255.255.0  broadcast 0.0.0.0
        inet6 fe80::42:e2ff:fe15:af00  prefixlen 64  scopeid 0x20<link>
        ether 02:42:e2:15:af:00  txqueuelen 1000  (Ethernet)
        RX packets 73  bytes 5614 (5.6 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 12  bytes 936 (936.0 B)
        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 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

root@UbuntuDockerGuest-4:~#
```

h5

h6

```
root@UbuntuDockerGuest-6: ~

root@UbuntuDockerG...  ×    root@UbuntuDockerG...  ×    root@UbuntuDockerG...  ×

Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
UbuntuDockerGuest-6 console is now available... Press RETURN to get started.
root@UbuntuDockerGuest-6:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.2.19  netmask 255.255.255.0  broadcast 0.0.0.0
        inet6 fe80::42:eaff:fe45:6d00  prefixlen 64  scopeid 0x20<link>
        ether 02:42:ea:45:6d:00  txqueuelen 1000  (Ethernet)
        RX packets 62  bytes 4764 (4.7 KB)
        RX errors 0  dropped 6  overruns 0  frame 0
        TX packets 11  bytes 866 (866.0 B)
        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 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

root@UbuntuDockerGuest-6:~#
```

h7

```
root@UbuntuDockerGuest-7: ~

root@UbuntuDockerG...  ×    root@UbuntuDockerG...  ×    root@UbuntuDockerG...  ×    ⌄

Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
UbuntuDockerGuest-7 console is now available... Press RETURN to get started.
root@UbuntuDockerGuest-7:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.163.56.7  netmask 255.255.255.0  broadcast 0.0.0.0
        inet6 fe80::42:67ff:fef8:8500  prefixlen 64  scopeid 0x20<link>
        ether 02:42:67:f8:85:00  txqueuelen 1000  (Ethernet)
        RX packets 50  bytes 3716 (3.7 KB)
        RX errors 0  dropped 2  overruns 0  frame 0
        TX packets 11  bytes 866 (866.0 B)
        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 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

root@UbuntuDockerGuest-7:~#
```

h8

```
root@UbuntuDockerGuest-8: ~

   root@UbuntuDockerG...  ×      root@UbuntuDockerG...  ×      root@UbuntuDockerG...  ×

Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
UbuntuDockerGuest-8 console is now available... Press RETURN to get started.
root@UbuntuDockerGuest-8:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.4.5  netmask 255.255.255.0  broadcast 0.0.0.0
        inet6 fe80::42:8dff:fed1:5f00  prefixlen 64  scopeid 0x20<link>
        ether 02:42:8d:d1:5f:00  txqueuelen 1000  (Ethernet)
        RX packets 53  bytes 3906 (3.9 KB)
        RX errors 0  dropped 2  overruns 0  frame 0
        TX packets 12  bytes 936 (936.0 B)
        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 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

root@UbuntuDockerGuest-8:~#
```