

Task A:

```
tyler@tyler-VirtualBox:~$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:92:78:ee brd ff:ff:ff:ff:ff:ff
    inet 10.254.16.128/16 brd 10.254.255.255 scope global dynamic noprefixroute enp0s3
        valid_lft 3377sec preferred_lft 3377sec
    inet6 fe80::33fb:b939:aeb3:d728/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
tyler@tyler-VirtualBox:~$ ip route
default via 10.254.0.1 dev enp0s3 proto dhcp metric 100
10.254.0.0/16 dev enp0s3 proto kernel scope link src 10.254.16.128 metric 100
169.254.0.0/16 dev enp0s3 scope link metric 1000
tyler@tyler-VirtualBox:~$ netstat -ta
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 localhost:domain       0.0.0.0:*               LISTEN
tcp6       0      0 ip6-localhost:ipp     [::]:*                 LISTEN
tyler@tyler-VirtualBox:~$ ping -c 10 ubuntu.com
PING ubuntu.com (185.125.190.21) 56(84) bytes of data:
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=1 ttl=48 time=94.1 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=2 ttl=48 time=94.3 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=3 ttl=48 time=93.5 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=4 ttl=48 time=92.9 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=5 ttl=48 time=93.7 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=6 ttl=48 time=109 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=7 ttl=48 time=97.1 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=8 ttl=48 time=93.4 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=9 ttl=48 time=93.2 ms
64 bytes from website-content-cache-2.ps5.canonical.com (185.125.190.21): icmp_seq=10 ttl=48 time=96.0 ms
```

```
--- ubuntu.com ping statistics ---
10 packets transmitted, 10 received, 0% packet loss, time 9017ms
rtt min/avg/max/mdev = 92.945/95.726/108.900/4.570 ms
tyler@tyler-VirtualBox:~$ host www.odu.edu
www.odu.edu has address 35.170.140.174
tyler@tyler-VirtualBox:~$ cat /etc/hostname
tyler-VirtualBox
tyler@tyler-VirtualBox:~$ cat /etc/resolv.conf
# This is /run/systemd/resolve/stub-resolv.conf managed by man:systemd-resolved(
8).
# Do not edit.
#
# This file might be symlinked as /etc/resolv.conf. If you're looking at
# /etc/resolv.conf and seeing this text, you have followed the symlink.
#
# This is a dynamic resolv.conf file for connecting local clients to the
# internal DNS stub resolver of systemd-resolved. This file lists all
# configured search domains.
#
# Run "resolvectl status" to see details about the uplink DNS servers
# currently in use.
#
# Third party programs should typically not access this file directly, but only
# through the symlink at /etc/resolv.conf. To manage man:resolv.conf(5) in a
#
# See man:systemd-resolved.service(8) for details about the supported modes of
# operation for /etc/resolv.conf.

nameserver 127.0.0.53
options edns0 trust-ad
search wlan.odu.edu
tyler@tyler-VirtualBox:~$ sudo nano /etc/hostname
[sudo] password for tyler:
tyler@tyler-VirtualBox:~$
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```
GNU nano 6.2 /etc/hostname *
Midas tyler-VirtualBox
```

⌘	Help	⌘	Write Out	⌘	Where Is	⌘	Cut	⌘	Execute	⌘	Location
⌘	Exit	⌘	Read File	⌘	Replace	⌘	Paste	⌘	Justify	⌘	Go To Line

Task B: Differences

These are the differences I found after repeating Task A with the NAT change.

```
default via 10.0.2.2 dev enp0s3 proto dhcp metric 100
10.0.2.0/24 dev enp0s3 proto kernel scope link src 10.0.2.15 metric 100
10.0.2.15 dev enp0s3 proto dhcp scope link src 10.0.2.15 metric 100
inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
    valid_lft 86357sec preferred_lft 86357sec
tyler@tyler-VirtualBox:~$ ping -c 10 ubuntu.com
PING ubuntu.com (185.125.190.29) 56(84) bytes of data:
64 bytes from website-content-cache-3.ps5.canonical.com (185.125.190.29): icmp_s
eq=1 ttl=49 time=85.1 ms
```