

Name: Youngjoo Lee

CS 312 – 001

Homework 7

May 26, 2020

"Homework7_YoungjooLee.zip" includes:

README.pdf, hosts.ini, hw7script.sh, index.html, webserver.yaml

<Instructions>

1. Start up a pfSense router first, and then start up a CentOS CLI VM and four Alpine VMs.

* Check CentOS has "ansible", if no, install it using a command: sudo yum install -y ansible

2. On the CentOS box, download "Homework7_YoungjooLee.zip" on the CentOS VM

(I attached Homework7_YoungjooLee.zip file)

* if you don't know download the file on CentOS VM, then use 'curl' command like below:

- curl -sL https://raw.githubusercontent.com/epww1502/cs312/master/Homework7_YoungjooLee.zip > ~/leey3.zip

```
[centosuser@localhost ~]$ curl -sL https://raw.githubusercontent.com/epww1502/cs312/master/Homework7_YoungjooLee.zip > ~/leey3.zip
[centosuser@localhost ~]$ ls
leey3.zip
```

* If you don't install curl before, then install 'curl' using "sudo yum install -y curl"

3. Unzip "leey3.zip" (if you don't have a way of unzip, then use 'unzip' command like below (if you don't have 'unzip', install it using "sudo yum install -y unzip")

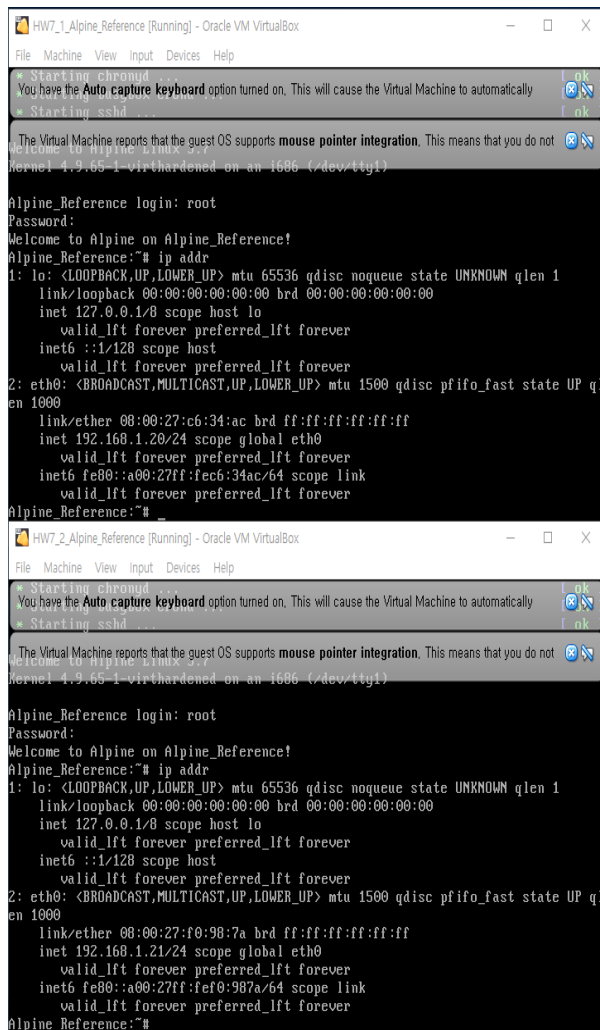
- unzip leey3.zip

```
[centosuser@localhost ~]$ ls
leey3.zip
[centosuser@localhost ~]$ unzip leey3.zip
Archive:  leey3.zip
  inflating: hosts.ini
  inflating: hw7script.sh
  inflating: index.html
  inflating: webserver.yaml
[centosuser@localhost ~]$ ls
hosts.ini  hw7script.sh  index.html  leey3.zip  webserver.yaml
```

4. Check all Alpines IP addresses using “ip addr” if they don’t have same IP addresses on the below list, then needs to change IP addresses in the script file (hw7script.sh) and “hosts.ini” to match IP addresses that Alpine boxes currently have.

Alpine boxes IP addresses List:

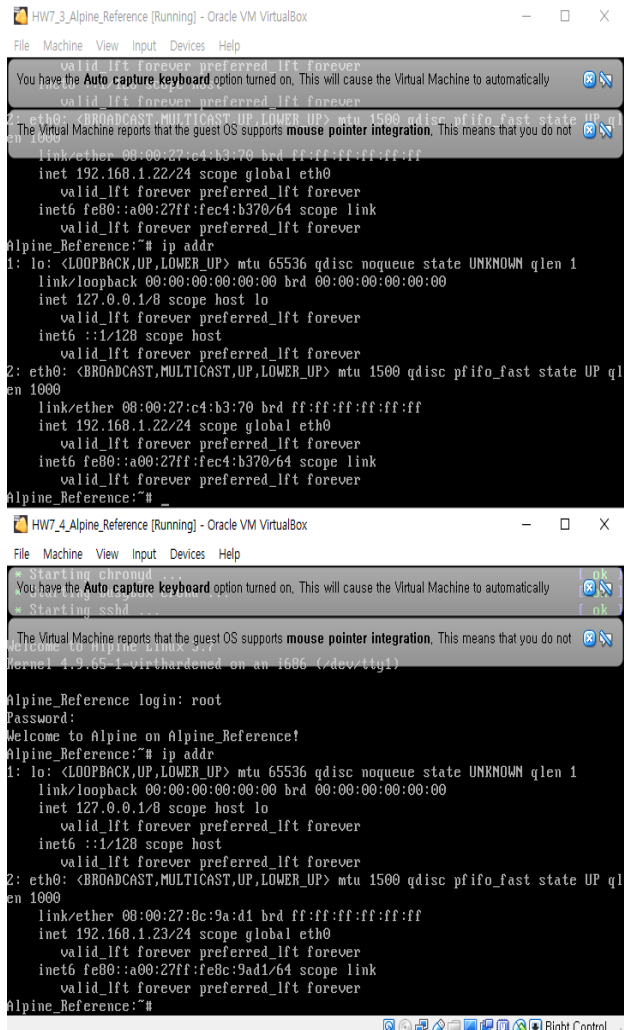
- ✓ 192.168.1.20
- ✓ 192.168.1.21
- ✓ 192.168.1.22
- ✓ 192.168.1.23



```
HW7_1 Alpine Reference [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
* Starting chronyd
You have the Auto capture keyboard option turned on. This will cause the Virtual Machine to automatically
* Starting sshd

The Virtual Machine reports that the guest OS supports mouse pointer integration. This means that you do not
Welcome to Alpine Linux 3.7
Kernel 4.9.65-1-virt-hardened on an i686 (/dev/tty1)

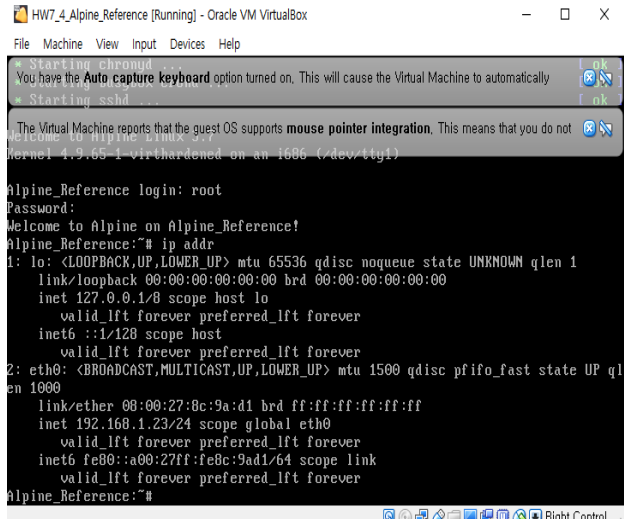
Alpine Reference login: root
Password:
Welcome to Alpine on Alpine Reference!
Alpine Reference:~# ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN qlen 1
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP qlen 1000
    link/ether 08:00:27:c6:34:ac brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.20/24 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fec6:34ac/64 scope link
        valid_lft forever preferred_lft forever
Alpine Reference:~#
```



```
HW7_3 Alpine Reference [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
* Starting chronyd
You have the Auto capture keyboard option turned on. This will cause the Virtual Machine to automatically
* Starting sshd

The Virtual Machine reports that the guest OS supports mouse pointer integration. This means that you do not
Welcome to Alpine Linux 3.7
Kernel 4.9.65-1-virt-hardened on an i686 (/dev/tty1)

Alpine Reference login: root
Password:
Welcome to Alpine on Alpine Reference!
Alpine Reference:~# ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN qlen 1
    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: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP qlen 1000
    link/ether 08:00:27:c4:b3:70 brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.22/24 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fec4:b370/64 scope link
        valid_lft forever preferred_lft forever
Alpine Reference:~#
```



```
HW7_4 Alpine Reference [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
* Starting chronyd
You have the Auto capture keyboard option turned on. This will cause the Virtual Machine to automatically
* Starting sshd

The Virtual Machine reports that the guest OS supports mouse pointer integration. This means that you do not
Welcome to Alpine Linux 3.7
Kernel 4.9.65-1-virt-hardened on an i686 (/dev/tty1)

Alpine Reference login: root
Password:
Welcome to Alpine on Alpine Reference!
Alpine Reference:~# ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN qlen 1
    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: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP qlen 1000
    link/ether 08:00:27:8c:9a:d1 brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.23/24 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe8c:9ad1/64 scope link
        valid_lft forever preferred_lft forever
Alpine Reference:~#
```

5. On CentOS box, type “./hw7script.sh” and enter

```
[centosuser@localhost ~]$ ./hw7script.sh
```

* if you see a message like “-bash: ./hw7script.sh: Permission denied”, then type “chmod +x hw7script.sh” and type “./hw7script.sh” again.

```
[centosuser@localhost ~]$ ./hw7script.sh
-bash: ./hw7script.sh: Permission denied
[centosuser@localhost ~]$ chmod +x hw7script.sh
[centosuser@localhost ~]$ ./hw7script.sh
ssh key is generating...
Generating public/private rsa key pair.
Enter file in which to save the key (/home/centosuser/.ssh/id_rsa): _
```

6. Enter twice for setting file in which to save the key, and then type 'password' (which is Alpines passwords) and 'yes' 4 times.

```
root@192.168.1.20's password:
```

```
Are you sure you want to continue connecting (yes/no)?
```

7. Finally, it will print result of index.html which contains the Ansible variable "template_run_date" in each alpine VMs!

```
<p>- Name: Youngjoo Lee <br>
- Class: CS 312 - 001<br>
- Homework 7</p>
<p>This page was last provisioned on 2020-05-18 04:35:30.047319</p>
</body>
</html>
<html>
<head><title>Youngjoo HW7 Test page</title></head>
<body>
<p>- Name: Youngjoo Lee <br>
- Class: CS 312 - 001<br>
- Homework 7</p>
<p>This page was last provisioned on 2020-05-18 04:35:30.090725</p>
</body>
</html>
<html>
<head><title>Youngjoo HW7 Test page</title></head>
<body>
<p>- Name: Youngjoo Lee <br>
- Class: CS 312 - 001<br>
- Homework 7</p>
<p>This page was last provisioned on 2020-05-18 04:35:30.056744</p>
</body>
</html>
[centosuser@localhost ~]$_
```