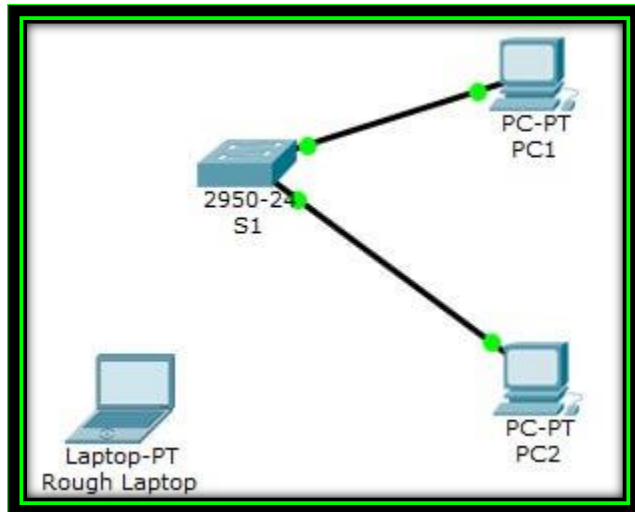
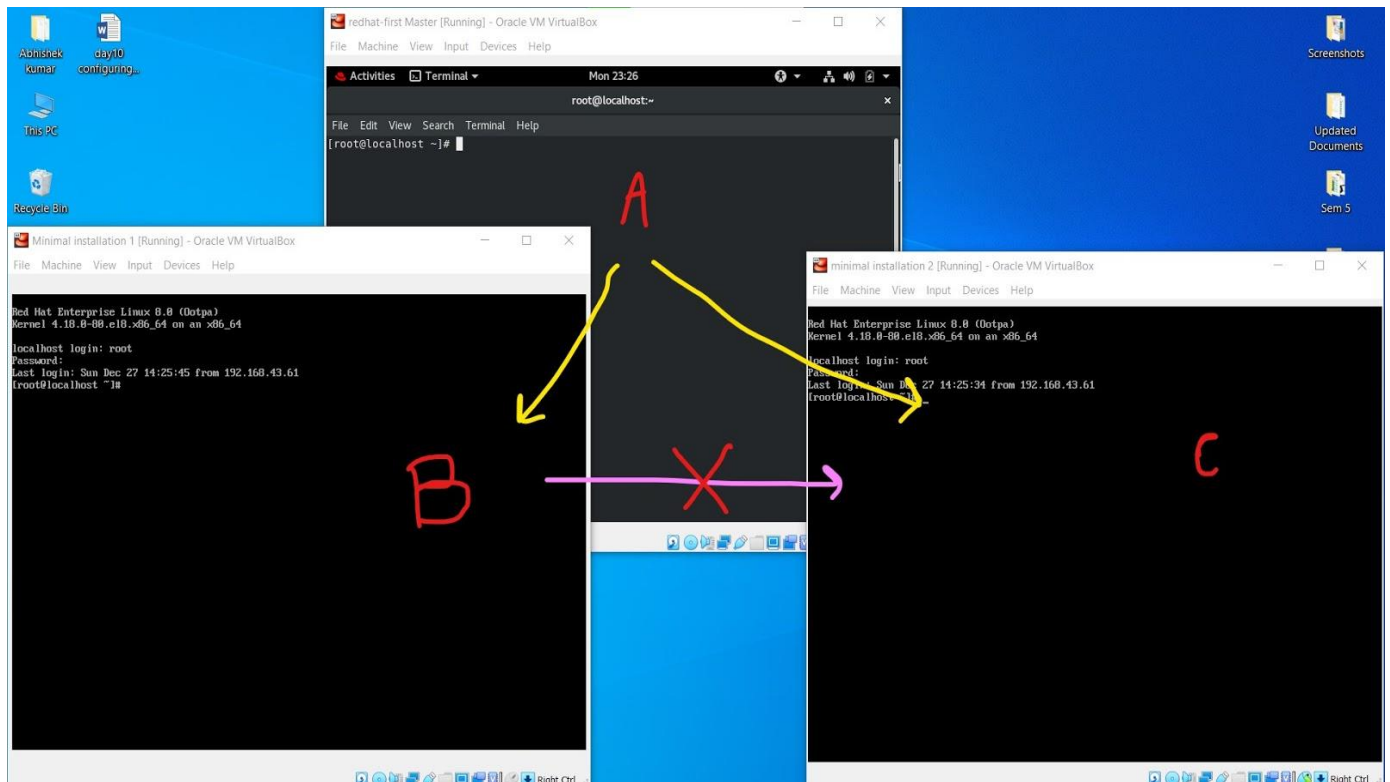


Network Topology



In this Task, I'm going to create a network Topology Setup in such a way that System A can ping to two Systems System B and System C but both these systems should not be pinging each other without using any security rule eg. firewall etc.

So, my main theme is-



Task:-

System A:-

1. Change the IP and netmask of system A to 192.168.122.1/24

```
ifconfig enp0s3 192.168.122.1/24
```

2. Using `ifconfig enp0s3` command, you can check the ip of the system.
3. By using `route -n` command, you can check the routing table of System.
4. Then add network range in the routing table.

Here I've selected the range such that it can ping to both of my other system.

```
Route add -net 192.168.122.0/24 enp0s3
```

System B:-

1. Change the ip of system such that it can be pingable by System A.

This ip should come in the range of system A.

```
ifconfig enp0s3 192.168.122.2
```

2. Using `ifconfig enp0s3` command, you can check the ip of the system.
3. Add range in the routing table of the system.

I've added the range according to ip of system A such that it can ping System A.

```
Route add -net 192.168.122.0/31 enp0s3
```

4. By using `route -n` command, you can check the routing table of System.

System C:-

1. Change the ip of system such that it can be pingable by System A.

This ip should come in the range of system A but not in range of System B.

```
ifconfig enp0s3 192.168.122.3
```

2. Using `ifconfig enp0s3` command, you can check the ip of the system.

3. Add range in the routing table of the system.

I've added the range according to ip of system A such that it can ping System A.

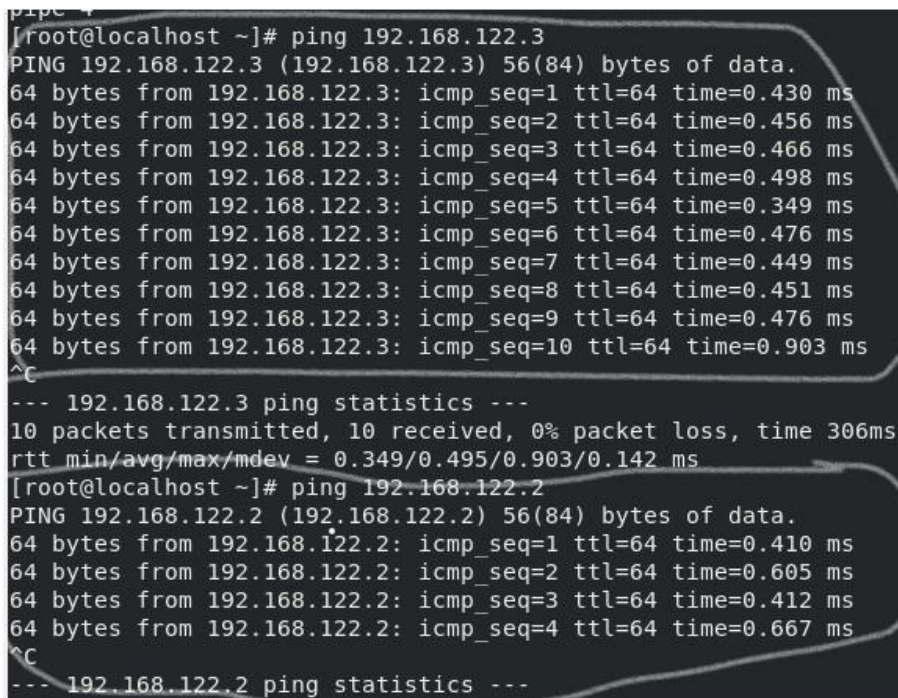
`Route add -net 192.168.122.0/31 enp0s3`

4. By using `route -n` command, you can check the routing table of System.

Done!!!

Now let's check the Network Topology by pinging.

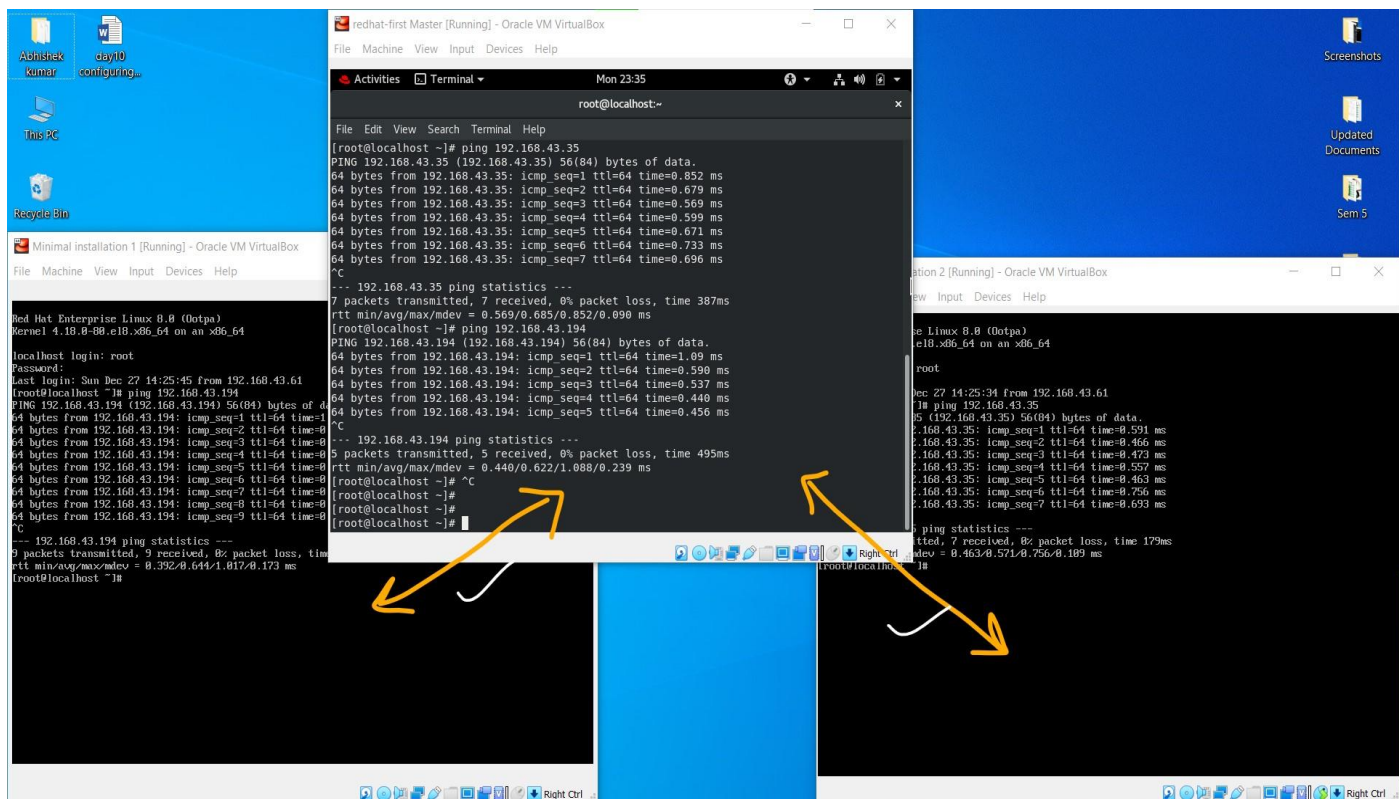
System A to system B and C:-



```
[root@localhost ~]# ping 192.168.122.3
PING 192.168.122.3 (192.168.122.3) 56(84) bytes of data.
64 bytes from 192.168.122.3: icmp_seq=1 ttl=64 time=0.430 ms
64 bytes from 192.168.122.3: icmp_seq=2 ttl=64 time=0.456 ms
64 bytes from 192.168.122.3: icmp_seq=3 ttl=64 time=0.466 ms
64 bytes from 192.168.122.3: icmp_seq=4 ttl=64 time=0.498 ms
64 bytes from 192.168.122.3: icmp_seq=5 ttl=64 time=0.349 ms
64 bytes from 192.168.122.3: icmp_seq=6 ttl=64 time=0.476 ms
64 bytes from 192.168.122.3: icmp_seq=7 ttl=64 time=0.449 ms
64 bytes from 192.168.122.3: icmp_seq=8 ttl=64 time=0.451 ms
64 bytes from 192.168.122.3: icmp_seq=9 ttl=64 time=0.476 ms
64 bytes from 192.168.122.3: icmp_seq=10 ttl=64 time=0.903 ms
^C
--- 192.168.122.3 ping statistics ---
10 packets transmitted, 10 received, 0% packet loss, time 306ms
rtt min/avg/max/mdev = 0.349/0.495/0.903/0.142 ms
[root@localhost ~]# ping 192.168.122.2
PING 192.168.122.2 (192.168.122.2) 56(84) bytes of data.
64 bytes from 192.168.122.2: icmp_seq=1 ttl=64 time=0.410 ms
64 bytes from 192.168.122.2: icmp_seq=2 ttl=64 time=0.605 ms
64 bytes from 192.168.122.2: icmp_seq=3 ttl=64 time=0.412 ms
64 bytes from 192.168.122.2: icmp_seq=4 ttl=64 time=0.667 ms
^C
--- 192.168.122.2 ping statistics ---
```

Ip 3 is system C and IP 2 is System B and See that both IP's are reachable with System A. Now,

System A to B and A to C also vice versa in a single picture.



Now from System B to C:-

```
192.168.122.0 0.0.0.0 255.255.255.254 0 0
[root@localhost ~]# ping 192.168.122.3
connect: Network is unreachable
```

Also from System C to B:-

```
192.168.122.0 0.0.0.0 255.255.255.254 0 0
[root@localhost ~]# ping 192.168.122.2
PING 192.168.122.2 (192.168.122.2) 56(84) bytes of data.
^C
--- 192.168.122.2 ping statistics ---
25 packets transmitted, 0 received, 100% packet loss, time 609ms

[root@localhost ~]#
```

In both the Screenshots we can see that both of the Systems are Unable to ping to each other are else all can ping to each other which is our demand.

Thanks for Reading.

