Assignment: DNS
Computer Networking
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1) Config files: Forward and Reverse for R1 and Kali

```
root@CN-R1: /etc/bind
 File Edit View Search Terminal Help
root@CN-R1:/etc/bind# cat db.cnlab.
; BIND data file for cnlab
        604800
$TTL
                SOA
                         cnlab. root.cnlab. (
0
        IN
                                          ; Serial
                               2
                          604800
                                         ; Refresh
                                         ; Retry
                           86400
                                         ; Expire
                         2419200
                          604800 )
                                        ; Negative Cache TTL
        IN
                         10.10.10.6
0
        IN
                NS
                        ns.cnlab.
@
        IN
                A
                         127.0.0.1
0
        IN
                AAAA
                         ::1
ns
   IN A
                10.10.10.6
Г1
        A
                10.10.10.6
Γ2
        A
                10.10.10.5
kali
        A
                10.10.10.4
root@CN-R1:/etc/bind#
```

Capture 1 Bind Data File for Zone 1

```
root@CN-R1: /etc/bind
File Edit View Search Terminal Help
root@CN-R1:/elc/bind# cat db.10.10.
; BIND data file for 10.10.X.X net
$TTL
        604800
                         ns.cnlab. root.cnlab. (
        IN
                SOA
                                        ; Serial
                               2
                                        ; Refresh
                          604800
                           86400
                                        ; Retry
                         2419200
                                        ; Expire
                          604800 )
                                        ; Negative Cache TTL
        IN
                NS
                        ns.
                        ns.cnlab.
                PTR
1.0.0
        IN
root@CN-R1:/etc/bind#
```

Capture 2 Reverse Bind Data File for Zone 1

```
root@CN-R1: /etc/bind
 File Edit View Search Terminal Help
root@CN-R1:/etc/bind# cat db.second.cnlab.
; BIND data file for second cnlab
$TTL
        604800
        IN
                SOA
                         second.cnlab. root.second.cnlab. (
0
                               2
                                         ; Serial
                                         ; Refresh
                          604800
                           86400
                                         ; Retry
                         2419200
                                        ; Expire
                                         ; Negative Cache TTL
                         604800 )
                         10.10.10.6
        IN
                A
                NS
                         ns.second.cnlab.
        IN
0
                         127.0.0.1
0
        IN
                A
                        ::1
0
        IN
                AAAA
                10.10.10.6
ns
   IN
       A
                10.10.11.9
г3
        A
Г4
                10.10.11.6
        A
ubuntu A
                10.10.11.18
root@CN-R1:/etc/bind#
```

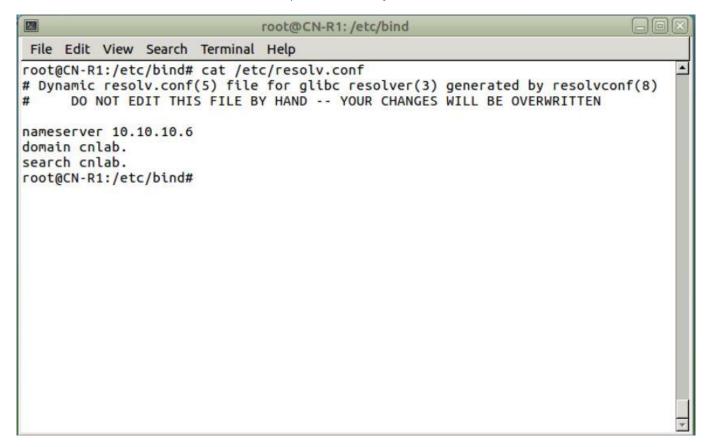
Capture 3 Bind Data File for Zone 2

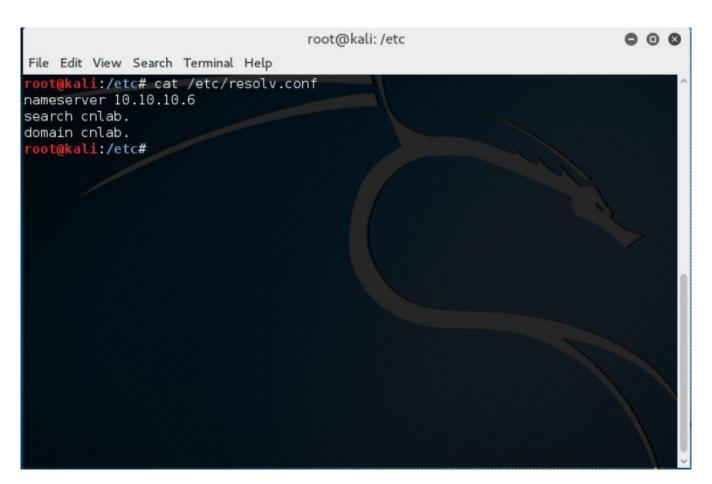
```
2
                              root@CN-R1: /etc/bind
File Edit View Search Terminal Help
root@CN-R1:/etc/bind# cat db.10.10.11.
; BIND data file for 10.10.X.X net
        604800
$TTL
        IN
                SOA
                        ns.second.cnlab. root.second.cnlab. (
                                        ; Serial
                              2
                                        ; Refresh
                         604800
                          86400
                                        ; Retry
                        2419200
                                        ; Expire
                         604800 )
                                        ; Negative Cache TTL
        IN
                NS
                        ns.
1.0.0
       IN
                PTR
                        ns.second.cnlab.
root@CN-R1:/etc/bind#
```

Capture 4 Reverse Bind Data File for Zone 2

```
root@CN-R1: /etc/bind
 File Edit View Search Terminal Help
root@CN-R1:/etc/bind# cat named.conf.local
// Do any local configuration here
11
// Consider adding the 1918 zones here, if they are not used in your
// organization
//include "/etc/bind/zones.rfc1918";
zone "cnlab." {
        type master;
        file "/etc/bind/db.cnlab.";
};
zone "10.10.in-addr.arpa" {
        type master;
        file "/etc/bind/db.10.10.";
};
zone "second.cnlab." {
        type master;
        file "/etc/bind/db.second.cnlab.";
};
zone "10.10.11.in-addr.arpa" {
        type master;
        file "/etc/bind/db.10.10.11.";
};
root@CN-R1:/etc/bind#
```

Capture 5 Named.conf.local File





Capture 7 Resolv.conf Kali

2) Ping by Name

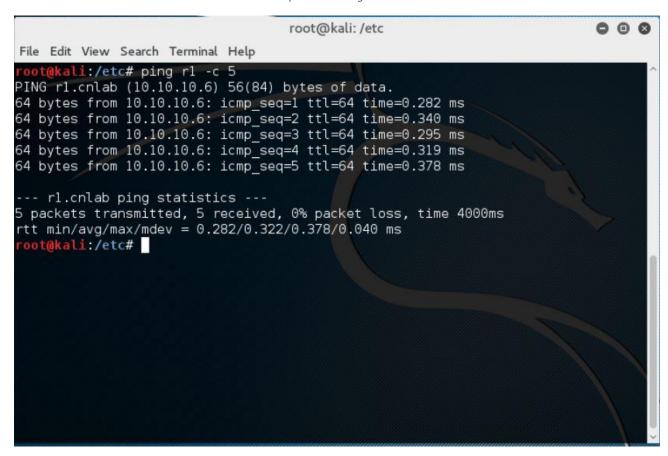
```
File Edit View Search Terminal Help

root@CN-R1:/etc/bind# ping kali -c 5

PING kali.cnlab (10.10.10.4) 56(84) bytes of data.
64 bytes from 10.10.10.4: icmp_seq=1 ttl=64 time=0.340 ms
64 bytes from 10.10.10.4: icmp_seq=2 ttl=64 time=0.248 ms
64 bytes from 10.10.10.4: icmp_seq=3 ttl=64 time=0.363 ms
64 bytes from 10.10.10.4: icmp_seq=4 ttl=64 time=0.351 ms
64 bytes from 10.10.10.4: icmp_seq=5 ttl=64 time=0.321 ms

--- kali.cnlab ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 3998ms
rtt mtn/avg/max/mdev = 0.248/0.324/0.363/0.045 ms
root@CN-R1:/etc/bind#
```

Capture 8 R1 Ping to Kali



Capture 9 Kali ping R1