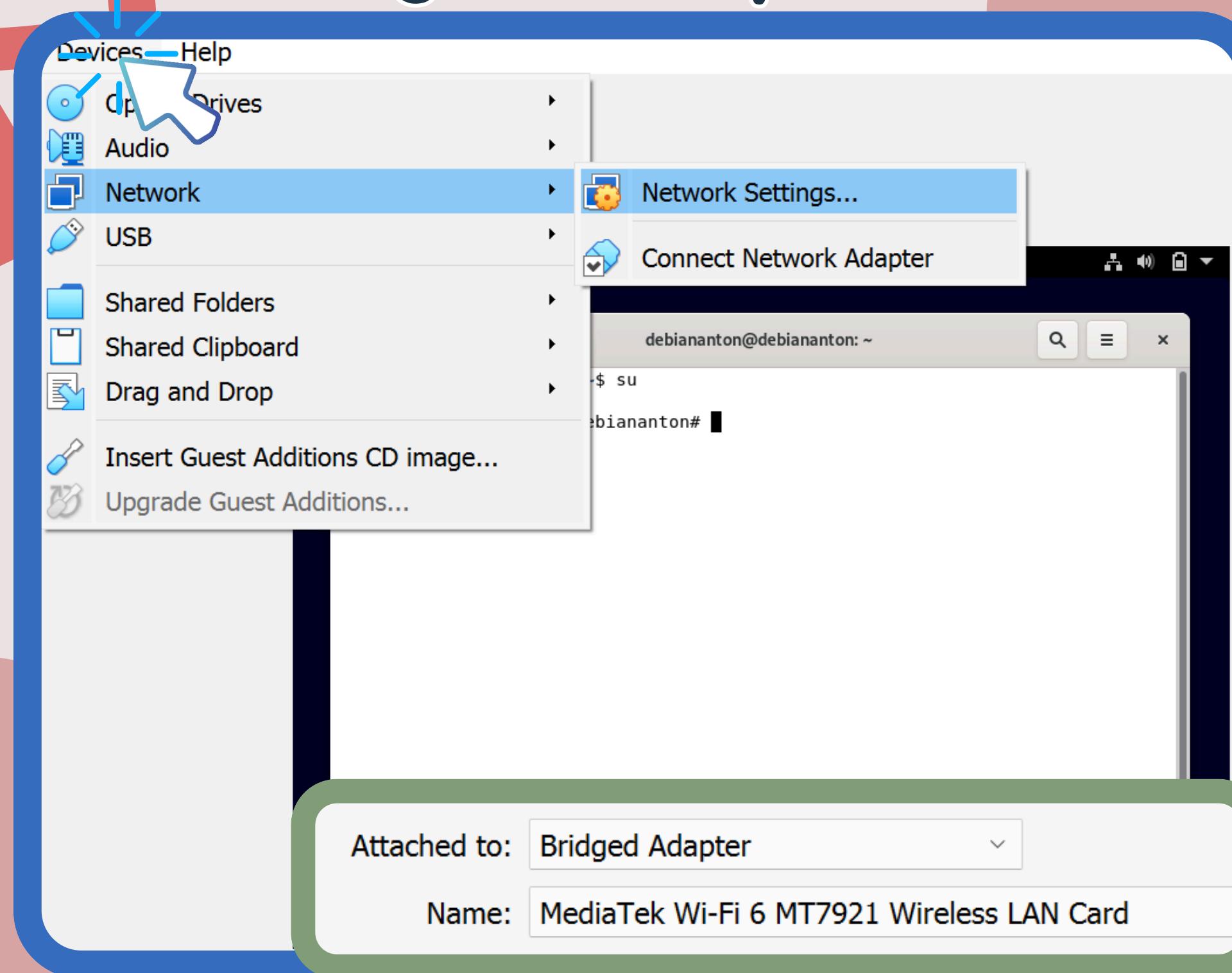


# KONFIGURASI DNS SERVER

Disusun oleh: Jonathan Antonio Salim

# 1. Ubah network settingnya menjadi 'Bridged Adapter'



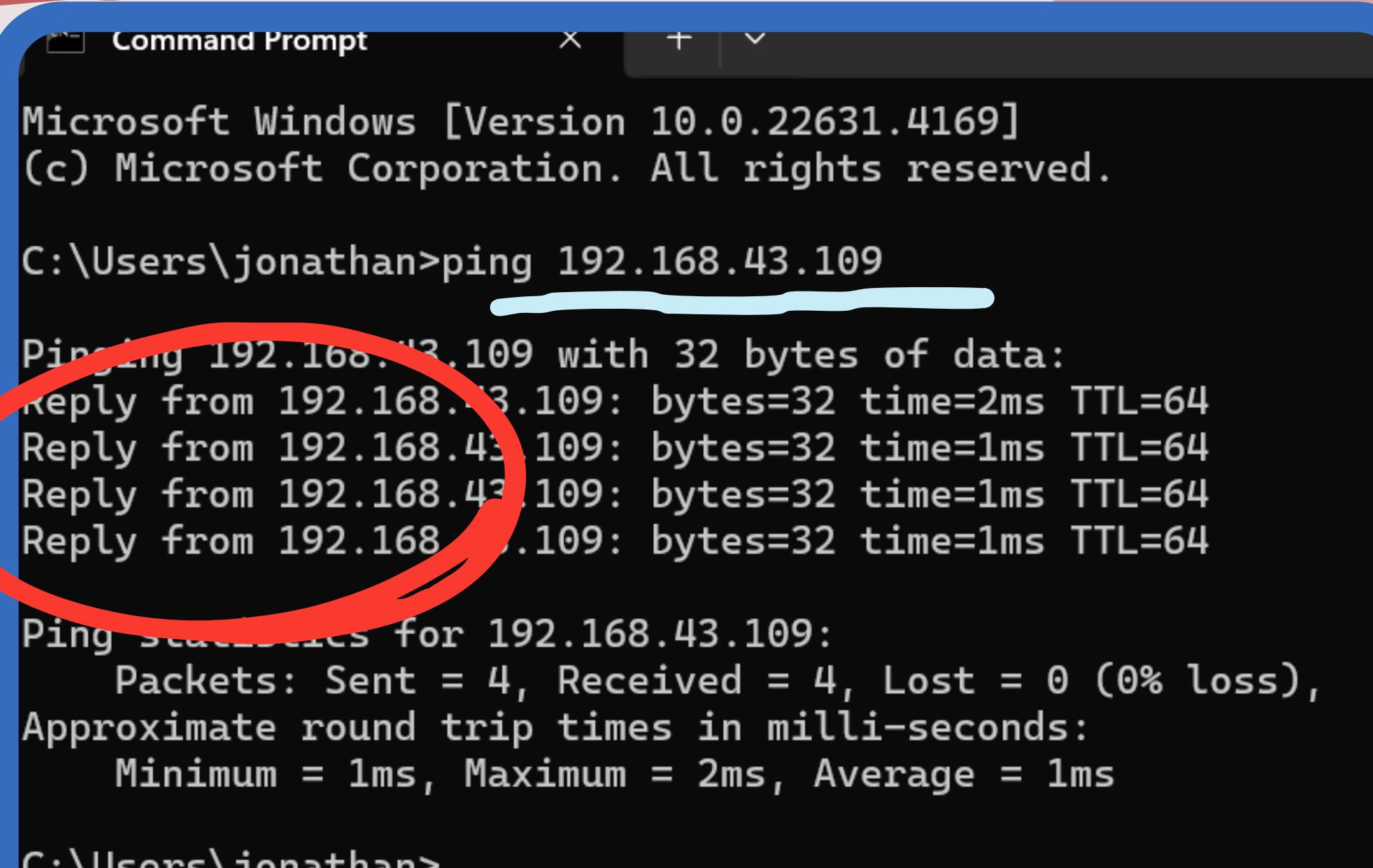
**2. Pastikan anda sudah login terlebih dahulu,  
kemudian masukkan perintah 'ping 8.8.8.8' untuk  
memastikan debian terkoneksi internet**

```
debiananton@debiananton:~$ su
Password:
root@debiananton:/home/debiananton# ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=56 time=65.1 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=56 time=62.3 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=56 time=64.6 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=56 time=61.3 ms
64 bytes from 8.8.8.8: icmp_seq=5 ttl=56 time=49.4 ms
```

### 3. Check ip kalian, dengan perintah 'ip a'

```
--- 8.8.8.8 ping statistics ---
10 packets transmitted, 10 received, 0% packet loss,
rtt min/avg/max/mdev = 49.402/66.111/87.126/9.568 ms
root@debiananton:/home/debiananton# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue
    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
    group default qlen 1000
        link/ether 08:00:27:0b:e2:f1 brd ff:ff:ff:ff:ff:ff
        inet 192.168.43.109/24 brd 192.168.43.255 scope
            enp0s3
            valid_lft 2629sec preferred_lft 2629sec
        inet6 fe80::a00:27ff:fe0b:e2f1/64 scope link noprefixroute
            valid_lft forever preferred_lft forever
root@debiananton:/home/debiananton#
```

4. Pastikan antara Server dan Client bisa terkoneksi dengan cara masuk ke Command Prompt kemudian ping ip yang sudah kalian dapat sebelumnya, jika hasilnya 'reply from' maka ping ip berhasil



```
Microsoft Windows [Version 10.0.22631.4169]
(c) Microsoft Corporation. All rights reserved.

C:\Users\jonathan>ping 192.168.43.109

Pinging 192.168.43.109 with 32 bytes of data:
Reply from 192.168.43.109: bytes=32 time=2ms TTL=64
Reply from 192.168.43.109: bytes=32 time=1ms TTL=64
Reply from 192.168.43.109: bytes=32 time=1ms TTL=64
Reply from 192.168.43.109: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.43.109:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\Users\jonathan>
```

## 5. Install aplikasi bind9, dengan perintah 'apt install bind9'

```
root@debiananton:/home/debiananton#  
root@debiananton:/home/debiananton# apt install bind9  
Reading package lists... Done
```

## 6. Install aplikasi apache2 dengan perintah 'apt install apache2'

```
Created symlink /etc/systemd/system/multi-user.target.wants/named.service → /lib  
/systemd/system/named.service.  
Processing triggers for man-db (2.9.4-2) ...  
root@debiananton:/home/debiananton# apt install apache2
```

**7. Sebelum konfigurasi ubah terlebih dahulu direktorinya menjadi /etc/bind, dengan memasukkan perintah cd /etc/bind**

```
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service →
ib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.
service → /lib/systemd/system/apache-htcacheclean.service.
Processing triggers for man-db (2.9.4-2) ...
root@debiananton:/home/debiananton# cd /etc/bind
```

8. Masukkan perintah "nano named.conf.local" Setelah muncul tampilan seperti berikut, tambahkan text seperti pada gambar. Pada bagian zone yang kedua isi dengan 3 oktet pertama ip kalian namun ditulis secara terbalik. jika sudah tekan 'Ctrl + x' kemudian ketik 'Y' dan enter

```
GNU nano 5.4          named.conf.local
// Do any local configuration here
//
// Consider adding the 1918 zones here, if they are not used in your
// organization
//include "/etc/bind/zones.rfc1918";

zone "anton.net" {
type master;
file "/etc/bind/db.anton";
};

zone "43.168.192.in-addr.arpa" {
type master;
file "/etc/bind/db.192";
};

[ Read 17 lines ]
^G Help      ^O Write Out  ^W Where Is  ^K Cut        ^T Execute  ^C Locate
^Q Exit      ^R Read File  ^\ Replace   ^U Paste        ^J Justify  ^
                                          debian
```

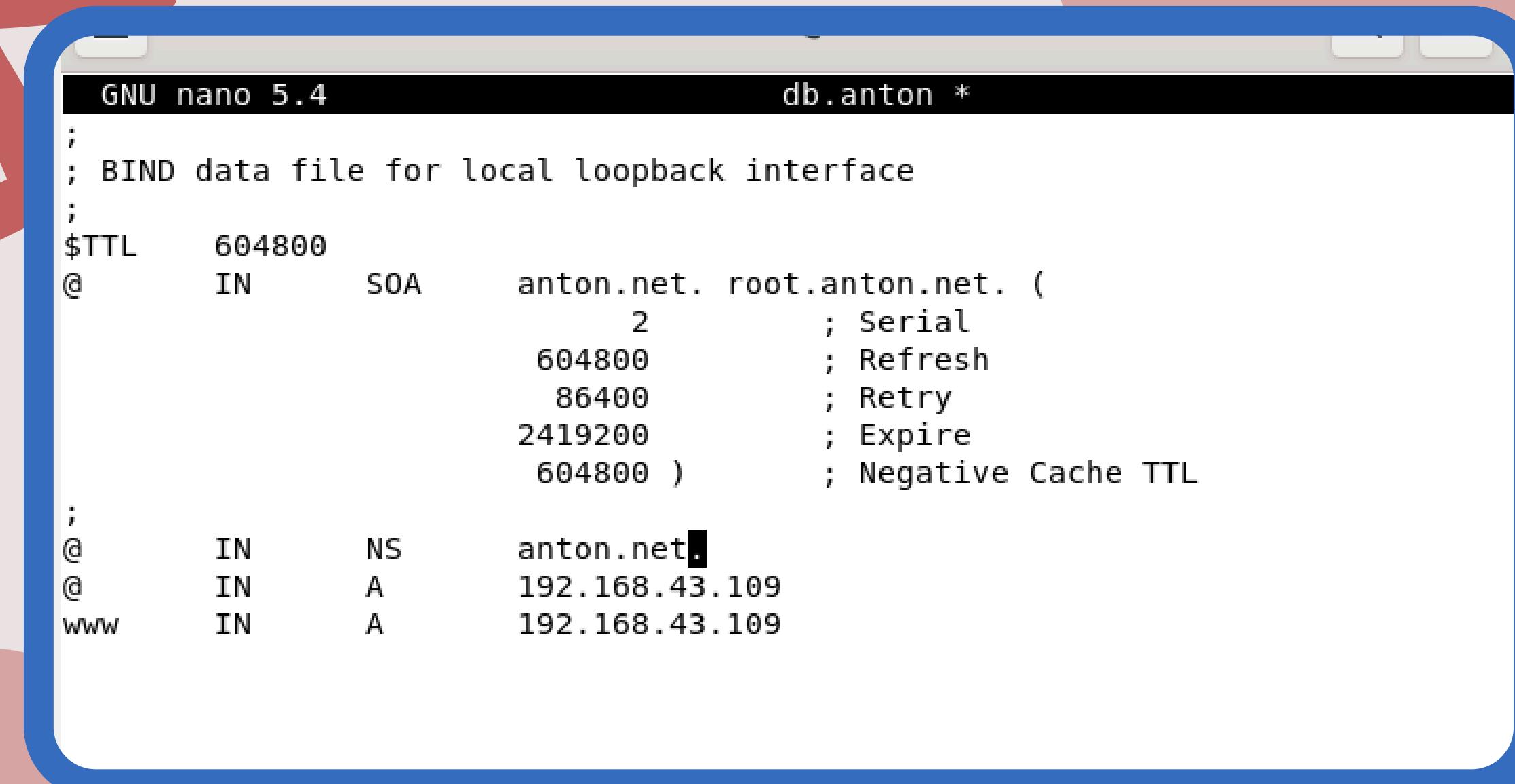
The screenshot shows a terminal window with the nano text editor open. The file is named 'named.conf.local'. Inside the file, there are two 'zone' declarations. The first is for 'anton.net' and the second is for '43.168.192.in-addr.arpa'. The second zone declaration is highlighted with a red box. At the bottom of the terminal window, there is a status bar with various keyboard shortcuts. Below the status bar, there is some text related to the system's network interfaces.

Catatan :  
Anton = Nama kalian

9. Masukkan perintah seperti berikut :

```
root@debiananton:/etc/bind# cp db.local db.anton  
root@debiananton:/etc/bind# cp db.127 db.192
```

10. Masukkan perintah nano db.(nama kalian) untuk mengubah konfigurasinya, setelah muncul tampilan seperti berikut ubah konfigurasi nya seperti gambar dibawah (sesuaikan dengan nama dan ip kalian), jika sudah tekan 'Crtl + x', 'Y', dan 'enter'



```
GNU nano 5.4                               db.anton *

;
; BIND data file for local loopback interface
;
$TTL    604800
@       IN      SOA     anton.net. root.anton.net. (
                                2                  ; Serial
                                604800            ; Refresh
                                86400             ; Retry
                                2419200           ; Expire
                                604800 )          ; Negative Cache TTL
;
@       IN      NS      anton.net.
@       IN      A       192.168.43.109
www    IN      A       192.168.43.109
```

11. Masukkan perintah nano db.192, lalu sesuaikan isinya seperti gambar berikut (anton=nama kalian). Jika sudah tekan 'Ctrl + x', 'Y', dan 'enter' untuk save

```
;  
; BIND reverse data file for local loopback interface  
;  
$TTL    604800  
@       IN      SOA     anton.net. root.anton.net. (  
                          1           ; Serial  
                          604800     ; Refresh  
                          86400      ; Retry  
                          2419200    ; Expire  
                          604800 )   ; Negative Cache TTL  
;  
@       IN      NS      anton.net.  
109    IN      PTR     anton.net.  
109    IN      PTR     www.anton.net
```

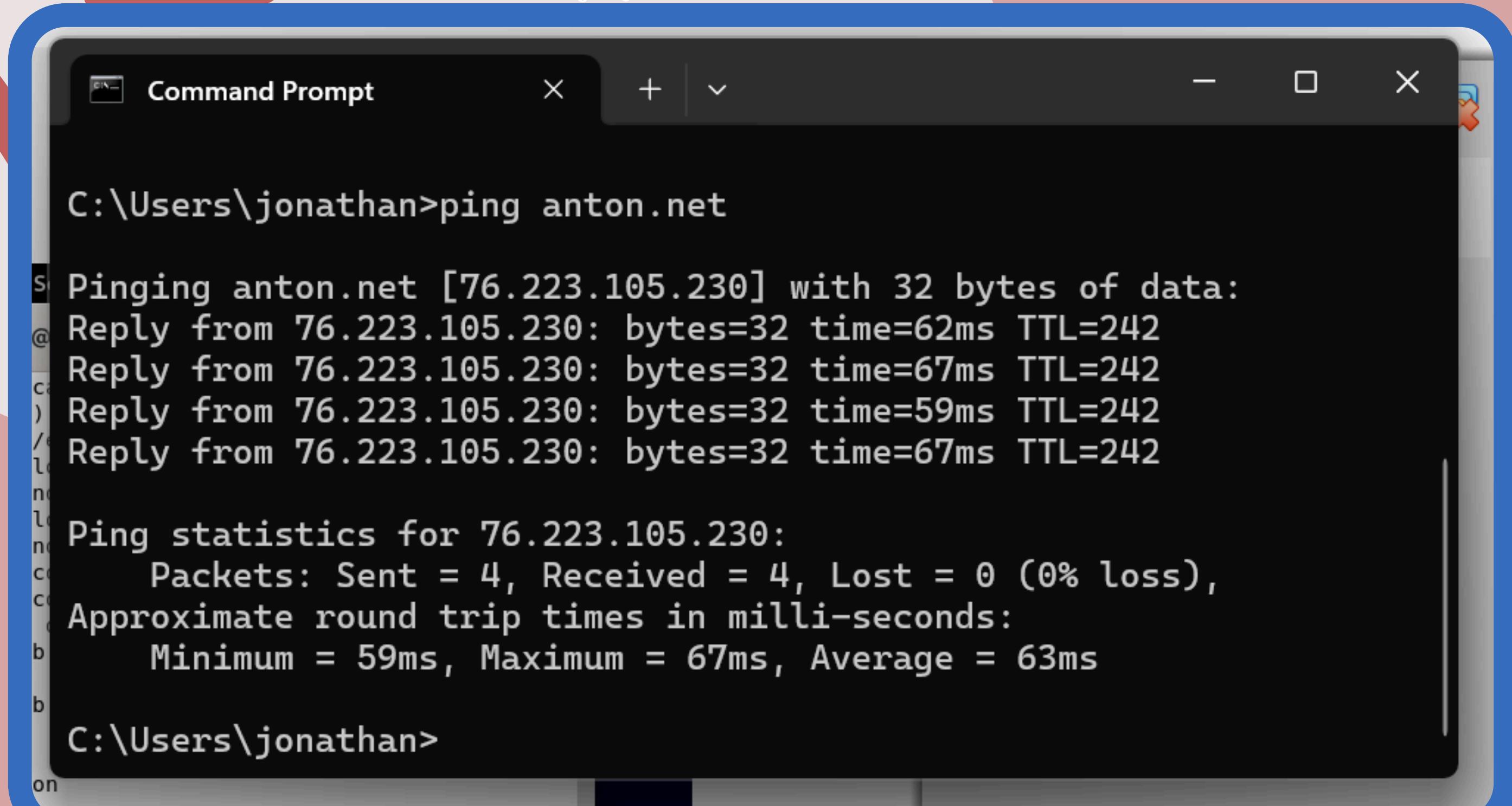
12. Masukkan perintah nano /etc/resolv.conf, kemudian isi seperti gambar dibawah (sesuaikan dengan alamat ip, dan nama.net kalian), jika sudah, save konfigurasinya (ctrl + x , y , enter)

```
GNU nano 5.4                               /etc/resolv.conf *
# Generated by NetworkManager
search anton.net
nameserver 192.168.43.109
```

13. Masukkan perintah nslookup + ip kalian, untuk mengecek apakah dns sudah terbaca oleh sistem debian. jika sudah muncul tampilan seperti berikut maka pengecekan berhasil.

```
root@debiananton:/etc/bind# nslookup 192.168.43.109  
109.43.168.192.in-addr.arpa      name = anton.net.  
109.43.168.192.in-addr.arpa      name = www.anton.net.43.168.192.in-addr.arpa.
```

14. Lakukan uji coba konfigurasi dns dengan ping melalui command crompt, setelah cmd terbuka, masukkan perintah ping + alamat dns kalian. jika muncul 'reply from..' maka uji coba berhasil



```
Command Prompt

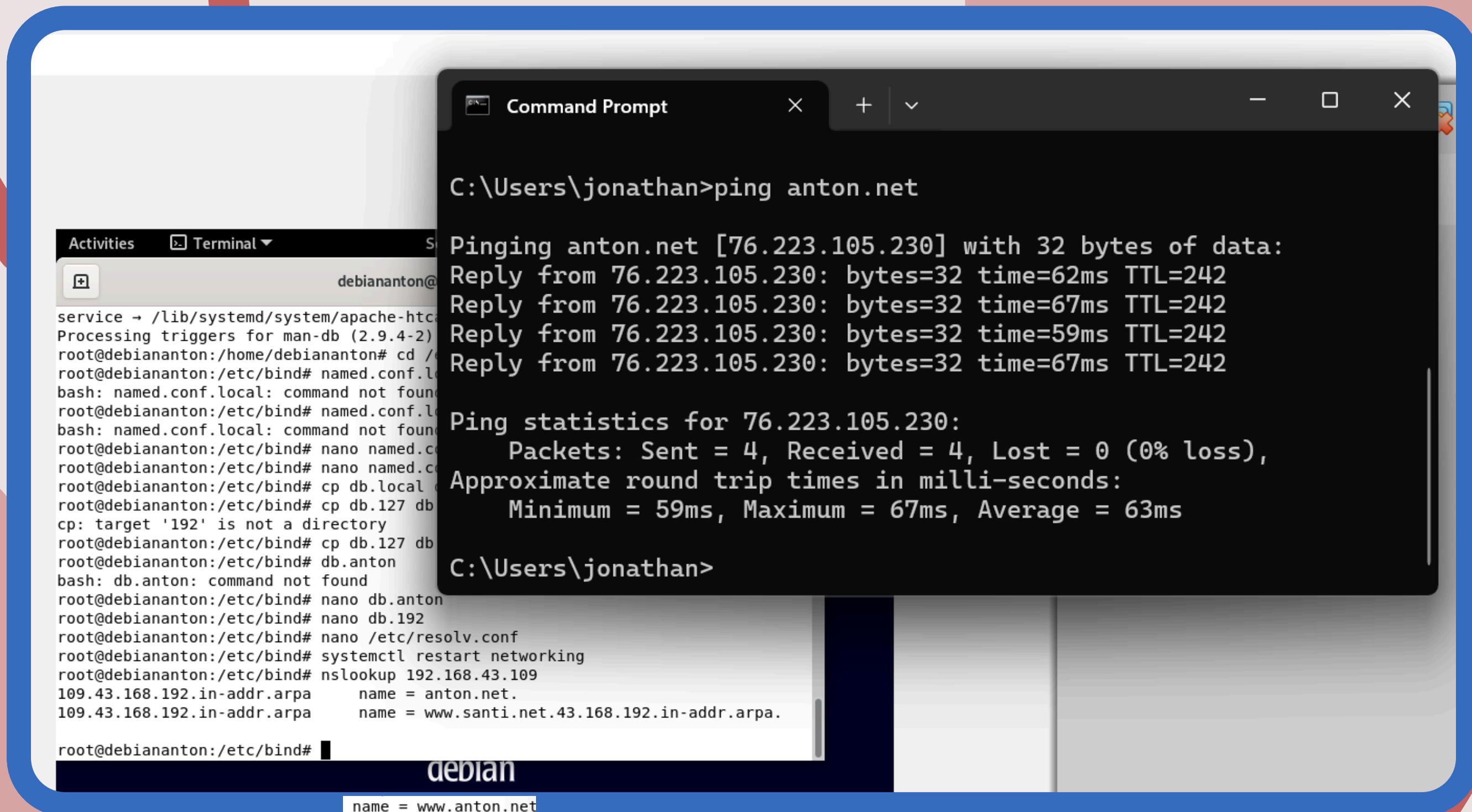
C:\Users\jonathan>ping anton.net

Pinging anton.net [76.223.105.230] with 32 bytes of data:
Reply from 76.223.105.230: bytes=32 time=62ms TTL=242
Reply from 76.223.105.230: bytes=32 time=67ms TTL=242
Reply from 76.223.105.230: bytes=32 time=59ms TTL=242
Reply from 76.223.105.230: bytes=32 time=67ms TTL=242

Ping statistics for 76.223.105.230:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 59ms, Maximum = 67ms, Average = 63ms

C:\Users\jonathan>
```

# HASIL AKHIR



```
C:\Users\jonathan>ping anton.net

Activities Terminal debiananton@debiananton: ~
+ debiananton@debiananton: ~
service → /lib/systemd/system/apache-htc
Processing triggers for man-db (2.9.4-2)
root@debiananton:/home/debiananton# cd /e
root@debiananton:/etc/bind# named.conf.lo
bash: named.conf.local: command not found
root@debiananton:/etc/bind# named.conf.lo
bash: named.conf.local: command not found
root@debiananton:/etc/bind# nano named.co
root@debiananton:/etc/bind# nano named.co
root@debiananton:/etc/bind# cp db.local.d
root@debiananton:/etc/bind# cp db.127 db
cp: target '192' is not a directory
root@debiananton:/etc/bind# cp db.127 db
root@debiananton:/etc/bind# db.anton
bash: db.anton: command not found
root@debiananton:/etc/bind# nano db.anton
root@debiananton:/etc/bind# nano db.192
root@debiananton:/etc/bind# nano /etc/resolv.conf
root@debiananton:/etc/bind# systemctl restart networking
root@debiananton:/etc/bind# nslookup 192.168.43.109
109.43.168.192.in-addr.arpa      name = anton.net.
109.43.168.192.in-addr.arpa      name = www.santi.net.43.168.192.in-addr.arpa.

root@debiananton:/etc/bind#
```

The terminal window shows the execution of the 'ping' command on a Windows system. The output indicates successful pings to the IP address 76.223.105.230 with a round-trip time of approximately 63ms. The window title is 'Command Prompt'. The background shows a blurred desktop environment with a blue rounded rectangle highlighting the terminal window.



# Terima Kasih

Made by Jonathan Anton