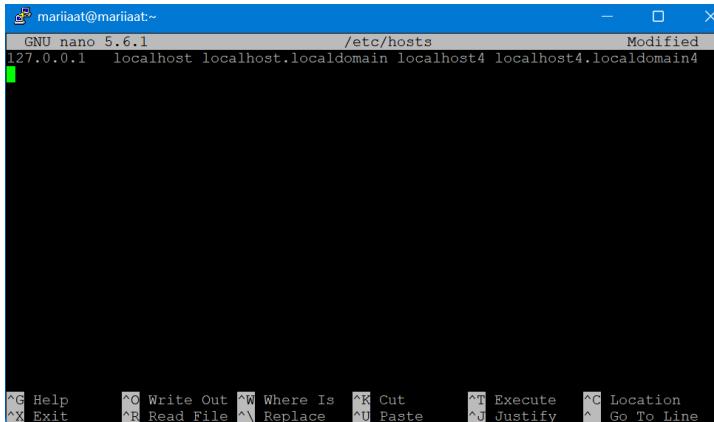


Assignment 7

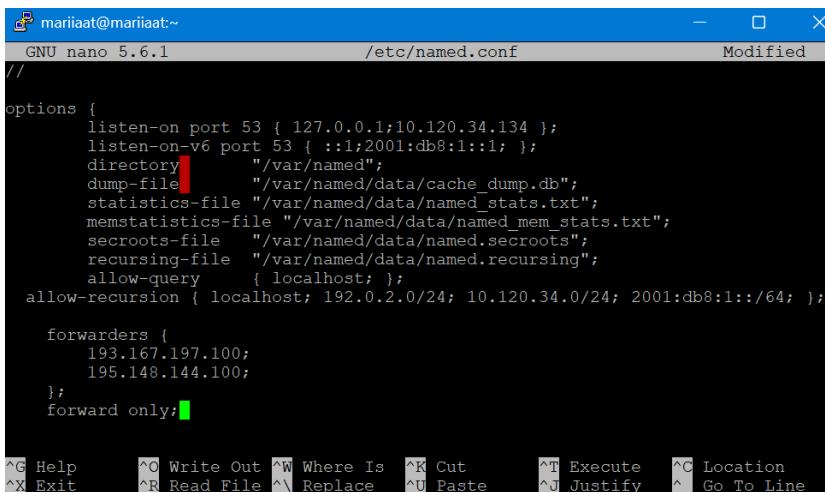
- At first, I used `sudo nano /etc/hosts` to clean the file.



```
mariiaat@mariiaat:~$ nano /etc/hosts
GNU nano 5.6.1                               /etc/hosts                         Modified
127.0.0.1  localhost localhost.localdomain localhost4 localhost4.localdomain4
^G Help      ^O Write Out ^W Where Is  ^K Cut      ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace    ^U Paste     ^J Justify   ^_ Go To Line
```

- Used `sudo yum install -y bind bind-utils` to install BIND and utilities.

- Edited the file as in example



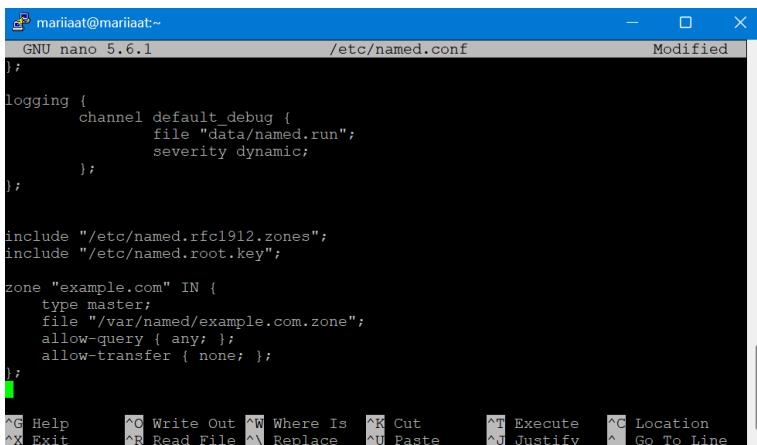
```
mariiaat@mariiaat:~$ nano /etc/named.conf
GNU nano 5.6.1                               /etc/named.conf                         Modified
//  

options {
    listen-on port 53 { 127.0.0.1;10.120.34.134; };
    listen-on-v6 port 53 { ::1;2001:db8:1::1; };
    directory "/var/named";
    dump-file "/var/named/data/cache_dump.db";
    statistics-file "/var/named/data/named_stats.txt";
    memstatistics-file "/var/named/data/named_mem_stats.txt";
    secroots-file "/var/named/data/named.secroots";
    recursing-file "/var/named/data/named.recursing";
    allow-query { localhost; };
    allow-recursion { localhost; 192.0.2.0/24; 10.120.34.0/24; 2001:db8:1::/64; };

    forwarders {
        193.167.197.100;
        195.148.144.100;
    };
    forward only;  

^G Help      ^O Write Out ^W Where Is  ^K Cut      ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace    ^U Paste     ^J Justify   ^_ Go To Line
```

- Configured zone



```
mariiaat@mariiaat:~$ nano /etc/named.conf
GNU nano 5.6.1                               /etc/named.conf                         Modified
};

logging {
    channel default_debug {
        file "data/named.run";
        severity dynamic;
    };
};

include "/etc/named.rfc1912.zones";
include "/etc/named.root.key";

zone "example.com" IN {
    type master;
    file "/var/named/example.com.zone";
    allow-query { any; };
    allow-transfer { none; };
};  

^G Help      ^O Write Out ^W Where Is  ^K Cut      ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace    ^U Paste     ^J Justify   ^_ Go To Line
```

```

mariiaat@mariiaat:~$ sudo nano /var/named/example.com.zone
GNU nano 5.6.1          /var/named/example.com.zone      Modified
$TTL 86400
@       IN      SOA     ns1.example.com. mashaatamanova05.gmail.com. (
                            2025120101 ; Serial (YYYYMMDDnn)
                            3600      ; Refresh
                            1800      ; Retry
                            604800    ; Expire
                            86400 )   ; Minimum TTL

ns1    IN      NS      ns1.example.com.
nsl   IN      A       10.120.34.134
www   IN      A       10.120.34.134

^G Help      ^O Write Out ^W Where Is  ^K Cut      ^T Execute  ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste    ^J Justify  ^_ Go To Line
[mariiaat@mariiaat ~]$ sudo named-checkzone example.com /var/named/example.com.zone
zone example.com/IN: loaded serial 2025120101
OK
[mariiaat@mariiaat ~]$

```

5. Turned off dns servers, opened and edited *sudo nano /etc/resolv.conf*

```

mariiaat@mariiaat:~$ sudo nano /etc/resolv.conf
GNU nano 5.6.1          /etc/resolv.conf
# Generated by NetworkManager
search mariia.lab
nameserver 10.120.34.134

```

Used *sudo chattr +i /etc/resolv.conf* to prevent overwriting

6. Tested with dig :

```

[mariiaat@mariiaat ~]$ dig @10.120.34.110 www.example.com
; <>> DiG 9.16.23-RH <>> @10.120.34.110 www.example.com
; (1 server found)
; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 45814
;; flags: qr rd ra; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1
;
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
; COOKIE: 15df601747cf4b540100000692dd3599cf7c81575cb3bc3 (good)
; QUESTION SECTION:
;www.example.com.           IN      A
;
;; ANSWER SECTION:
www.example.com.        300    IN      CNAME   www.example.com-v4.edgesuite.net.
www.example.com-v4.edgesuite.net. 21600 IN CNAME  a1422.dscre.akamai.net.
a1422.dscre.akamai.net. 20      IN      A       80.239.138.112
a1422.dscre.akamai.net. 20      IN      A       80.239.138.98
;
;; Query time: 321 msec
;; SERVER: 10.120.34.110#53(10.120.34.110)
;; WHEN: Mon Dec 01 19:41:45 EET 2025
;; MSG SIZE rcvd: 185
[mariiaat@mariiaat ~]$

```

Tested localhost resolution:

```
[mariiaat@mariiaat ~]$ dig @127.0.0.1 www.example.com
; <>> DiG 9.16.23-RH <>> @127.0.0.1 www.example.com
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<- opcode: QUERY, status: NOERROR, id: 50208
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
;;
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:: udp: 1232
; COOKIE: 1178bd6f96523cf001000000692dd4cba03eca34cdcbc171f (good)
;; QUESTION SECTION:
;www.example.com.           IN      A
;;
;; ANSWER SECTION:
www.example.com.     86400   IN      A      10.120.34.134
;;
;; Query time: 1 msec
;; SERVER: 127.0.0.1#53(127.0.0.1)
;; WHEN: Mon Dec 01 19:47:55 EET 2025
;; MSG SIZE  rcvd: 88
[mariiaat@mariiaat ~]$
```

Tested external domain to confirm forwarders are working correctly:

```
[mariiaat@mariiaat ~]$ dig @10.120.34.110 www.google.com
; <>> DiG 9.16.23-RH <>> @10.120.34.110 www.google.com
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<- opcode: QUERY, status: NOERROR, id: 37126
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
;;
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:: udp: 1232
; COOKIE: f13aa1e1a3800d801000000692dd531e758a34a94ddeb49 (good)
;; QUESTION SECTION:
;www.google.com.           IN      A
;;
;; ANSWER SECTION:
www.google.com.     300   IN      A      142.251.39.228
;;
;; Query time: 48 msec
;; SERVER: 10.120.34.110#53(10.120.34.110)
;; WHEN: Mon Dec 01 19:49:37 EET 2025
;; MSG SIZE  rcvd: 87
[mariiaat@mariiaat ~]$
```