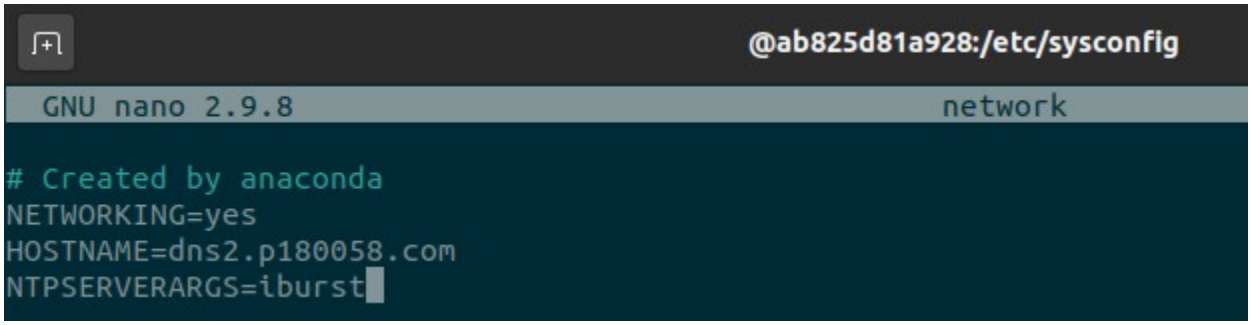
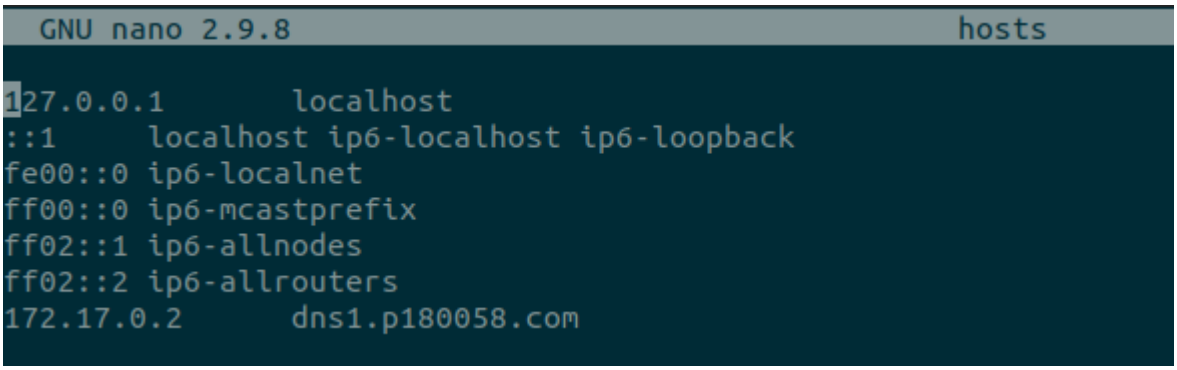
CN LAB TASK

```
(anaconda3) ali@p180058:~$ sudo docker run --name DNS1 -it centos
[sudo] password for ali:
[root@f7b5ca616c1b /]# yum install bind*
Failed to set locale, defaulting to C.UTF-8
CentOS-8 - AppStream                                            1.8 MB/s | 5.8 MB     00:03
CentOS-8 - Base                                                 957 kB/s | 2.2 MB     00:02
CentOS-8 - Extras                                               4.3 kB/s | 8.1 kB     00:01
Package bind-export-libs-32:9.11.13-5.el8_2.x86_64 is already installed.
Dependencies resolved.
================================================================================================
 Package                    Architecture   Version                      Repository         Size
================================================================================================
Installing:
 bind                       x86_64         32:9.11.13-6.el8_2.1         AppStream         2.1 M
 bind-chroot                x86_64         32:9.11.13-6.el8_2.1         AppStream         102 k
 bind-devel                 x86_64         32:9.11.13-6.el8_2.1         AppStream         175 k
 bind-export-devel          x86_64         32:9.11.13-6.el8_2.1         BaseOS            403 k
 bind-libs                  x86_64         32:9.11.13-6.el8_2.1         AppStream         172 k
 bind-libs-lite             x86_64         32:9.11.13-6.el8_2.1         AppStream         1.2 M
 bind-license               noarch         32:9.11.13-6.el8_2.1         AppStream         101 k
 bind-lite-devel            x86_64         32:9.11.13-6.el8_2.1         AppStream         396 k
 bind-pkcs11                x86_64         32:9.11.13-6.el8_2.1         AppStream         389 k
 bind-pkcs11-devel          x86_64         32:9.11.13-6.el8_2.1         AppStream         120 k
 bind-pkcs11-libs           x86_64         32:9.11.13-6.el8_2.1         AppStream         1.1 M
 bind-pkcs11-utils          x86_64         32:9.11.13-6.el8_2.1         AppStream         257 k
 bind-sdb                   x86_64         32:9.11.13-6.el8_2.1         AppStream         449 k
 bind-sdb-chroot            x86_64         32:9.11.13-6.el8_2.1         AppStream         102 k
 bind-utils                 x86_64         32:9.11.13-6.el8_2.1         AppStream         443 k
Upgrading:
 bind-export-libs           x86_64         32:9.11.13-6.el8_2.1         BaseOS            1.1 M
 zlib                       x86_64         1.2.11-16.el8_2              BaseOS            102 k
Installing dependencies:
```

```
  GNU nano 2.9.8                                          ifcfg-ens3

# Generated by dracut initrd
NAME="ens3"
DEVICE="ens3"
ONBOOT="yes"
NETBOOT="yes"
UUID="82eebe16-4fc7-4de7-aff9-dafc78e97773"
IPV6INIT="yes"
BOOTPROTO="static"
TYPE="Ethernet"
PROXY_METHOD="none"
BROWSER_ONLY="no"
DEFROUTE="yes"
IPV4_FAILURE_FATAL="no"
IPV6_AUTOCONF="yes"
IPV6_DEFROUTE="yes"
IPV6_FAILURE_FATAL="no"
IPADDR=172.17.0.2
NETMASK=255.255.0.0
GATEWAY=172.17.0.1
```


@ab825d81a928:/etc/sysconfig
GNU nano 2.9.8 network
# Created by anaconda
NETWORKING=yes
HOSTNAME=dns2.p180058.com
NTPSERVERARGS=iburst


GNU nano 2.9.8 hosts
127.0.0.1 localhost
::1 localhost ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
172.17.0.2 dns1.p180058.com


GNU nano 2.9.8 resolv.conf
This file is managed by man:systemd-resolved(8). Do not edit.
#
This is a dynamic resolv.conf file for connecting local clients directly to
all known uplink DNS servers. This file lists all configured search domains.
#
Third party programs must not access this file directly, but only through the
symlink at /etc/resolv.conf. To manage man:resolv.conf(5) in a different way,
replace this symlink by a static file or a different symlink.
#
See man:systemd-resolved.service(8) for details about the supported modes of
operation for /etc/resolv.conf.
search p180058.com
nameserver 172.17.0.2

```
 GNU nano 2.9.8                          named.conf                          M

//
// named.conf
//
// Provided by Red Hat bind package to configure the ISC BIND named(8) DNS
// server as a caching only nameserver (as a localhost DNS resolver only).
//
// See /usr/share/doc/bind*/sample/ for example named configuration files.
//

options {
        listen-on port 53 { 172.17.0.2; };
        listen-on-v6 port 53 { ::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; };

        /*
         - If you are building an AUTHORITATIVE DNS server, do NOT enable recursion.
         - If you are building a RECURSIVE (caching) DNS server, you need to enable
           recursion.
         - If your recursive DNS server has a public IP address, you MUST enable access
           control to limit queries to your legitimate users. Failing to do so will
           cause your server to become part of large scale DNS amplification
           attacks. Implementing BCP38 within your network would greatly
           reduce such attack surface
        */
```

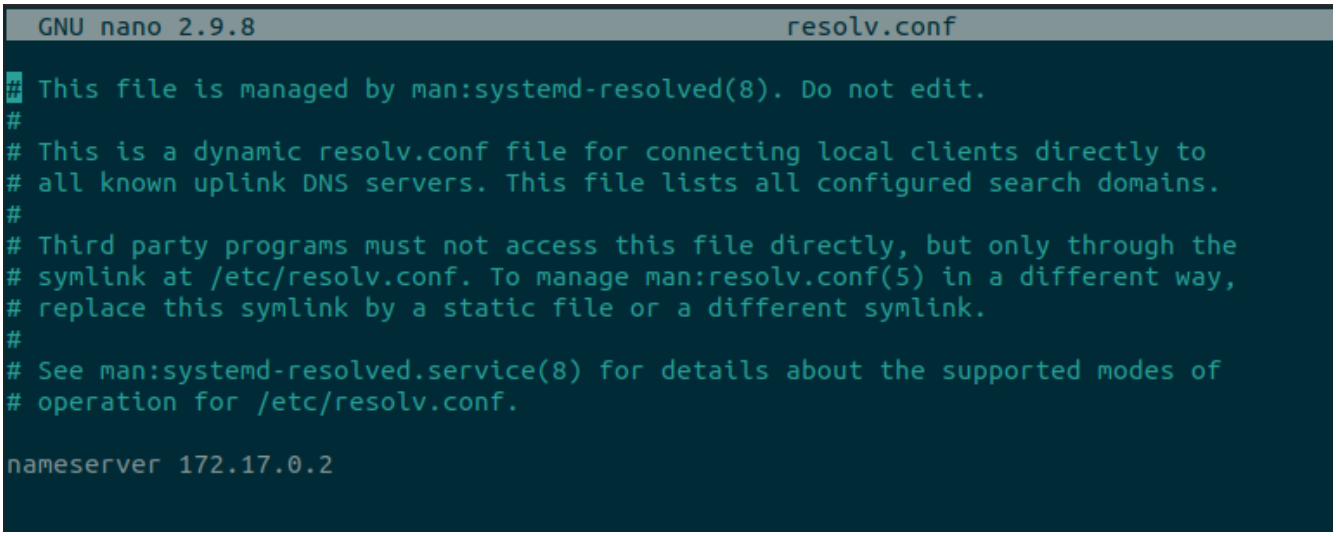
```
 GNU nano 2.9.8                    named.rfc1912.zones

// named.rfc1912.zones:
//
// Provided by Red Hat caching-nameserver package
//
// ISC BIND named zone configuration for zones recommended by
// RFC 1912 section 4.1 : localhost TLDs and address zones
// and https://tools.ietf.org/html/rfc6303
// (c)2007 R W Franks
//
// See /usr/share/doc/bind*/sample/ for example named configuration files.
//
// Note: empty-zones-enable yes; option is default.
// If private ranges should be forwarded, add
// disable-empty-zone "."; into options
//

zone "p180058.com" IN {
        type master;
        file "forward.zone";
        allow-update { none; };
};

zone "localhost" IN {
        type master;
```

```
 GNU nano 2.9.8                                    forward.zone

$TTL 1D
@       IN SOA dns1.p180058.com. root.dns1.p180058.com. (
                                        0       ; serial
                                        1D      ; refresh
                                        1H      ; retry
                                        1W      ; expiry
                                        3H)     ; minimun
        IN NS  dns1.p180058.com.
dns1    IN A   172.17.0.2
```

```
 GNU nano 2.9.8                                    reverse.zone

$TTL 1D
@       IN SOA dns1.p180058.com. root.dns1.p180058.com. (
                                        0       ; serial
                                        1D      ; refresh
                                        1H      ; retry
                                        1W      ; expiry
                                        3H)     ; minimun
        IN NS   dns1.p180058.com.
2       IN PTR  dns1.p180058.com.
```

```
[root@ab825d81a928 named]# chgrp named /var/named/forward.zone
[root@ab825d81a928 named]# chgrp named /var/named/reverse.zone
[root@ab825d81a928 named]#
```

```
(anaconda3) ali@p180058:~$ sudo docker run --name client -it centos
[sudo] password for ali:
Sorry, try again.
[sudo] password for ali:
[root@af2f0edac221 /]#
```


GNU nano 2.9.8 resolv.conf
This file is managed by man:systemd-resolved(8). Do not edit.
#
This is a dynamic resolv.conf file for connecting local clients directly to
all known uplink DNS servers. This file lists all configured search domains.
#
Third party programs must not access this file directly, but only through the
symlink at /etc/resolv.conf. To manage man:resolv.conf(5) in a different way,
replace this symlink by a static file or a different symlink.
#
See man:systemd-resolved.service(8) for details about the supported modes of
operation for /etc/resolv.conf.
nameserver 172.17.0.2