

TUGAS 10

(Dosen pengampu : Bahrul Ghozali, S.Kom. M.Kom)

SISTEM OPERASI



Oleh :

1. Bagas Aurul Chaniago (21.02.0622)

FAKULTAS ILMU KOMPUTER

MANAJEMEN INFORMATIKA

UNIVERSITAS AMIKOM YOGYAKARTA

2023/2024

SOAL

LAPORAN RESMI:

1. Analisa hasil percobaan diatas , untuk setiap perintah jelaskan tampilannya.
2. Berikan kesimpulan dari praktikum ini.

JAWABAN

1. Masuk sebagai super user atau root lalu install bind9

```
root@ubuntu: /home/bagas

File Edit View Search Terminal Help

bagas@ubuntu:~$ sudo su
[sudo] password for bagas:
root@ubuntu: /home/bagas# apt-get install bind9 -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  fonts-liberation2 fonts-opensymbol gir1.2-gst-plugins-base-1.0 gir1.2-gstreamer-1.0 gir1.2-gudev-1.0
  gir1.2-udisks-2.0 grilo-plugins-0.3-base gstreamer1.0-gtk3 libboost-date-time1.65.1 libboost-filesystem1.65.1
  libboost-iostreams1.65.1 libboost-locale1.65.1 libcdr-0.1-1 libclucene-contribs1v5 libclucene-core1v5
  libcmis-0.5-5v5 libcolamd2 libdazzle-1.0-0 libe-book-0.1-1 libedataserverui-1.2-2 libeot0 libepubgen-0.1-1
  libetonyek-0.1-1 libevent-2.1-6 libexiv2-14 libfreerdp-client2-2 libfreerdp2-2 libgic2 libgee-0.8-2 libgexiv2-2
  libgom-1.0-0 libgpgmepp6 libgpod-common libgpod4 liblangtag-common liblangtag1 liblirc-client0 liblua5.3-0
  libmediaart-2.0-0 libmspub-0.1-1 libodfgen-0.1-1 libqwing2v5 libraw16 libvenge-0.0-0 libsgutils2-2 libssh-4
  libsuitesparseconfig5 libvncclient1 libwinpr2-2 libxapian30 libxmlsec1-nss lp-solve media-player-info python3-mako
  python3-markupsafe syslinux syslinux-common syslinux-legacy usb-creator-common
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  bind9utils python3-ply
Suggested packages:
  bind9-doc resolvconf python-ply-doc
The following NEW packages will be installed:
  bind9 bind9utils python3-ply
0 upgraded, 3 newly installed, 0 to remove and 31 not upgraded.
Need to get 660 kB of archives.
After this operation, 3,562 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu bionic/main amd64 python3-ply all 3.11-1 [46.6 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu bionic-updates/main amd64 bind9utils amd64 1:9.11.3+dfsg-1ubuntu1.18 [216 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu bionic-updates/main amd64 bind9 amd64 1:9.11.3+dfsg-1ubuntu1.18 [398 kB]
Fetched 660 kB in 6s (105 kB/s)
Preconfiguring packages ...
Selecting previously unselected package python3-ply.
```

- **Apt-get install bind9 -y** untuk menginstall bind9

2. Cek jaringan

```
root@ubuntu: /home/bagas# ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.42.130 netmask 255.255.255.0 broadcast 192.168.42.255
    inet6 fe80::355a:fb1e:1cae:fa90 prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:ab:5d:9d txqueuelen 1000 (Ethernet)
    RX packets 2657 bytes 2660120 (2.6 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1457 bytes 136569 (136.5 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 434 bytes 35310 (35.3 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 434 bytes 35310 (35.3 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@ubuntu: /home/bagas#
```

- **Ifconfig** adalah suatu perintah untuk mengecek jaringan kita.

3. Setting alamat IP

```
root@ubuntu: /home/bagas

File Edit View Search Terminal Help

GNU nano 2.9.3 /etc/network/interfaces Modified

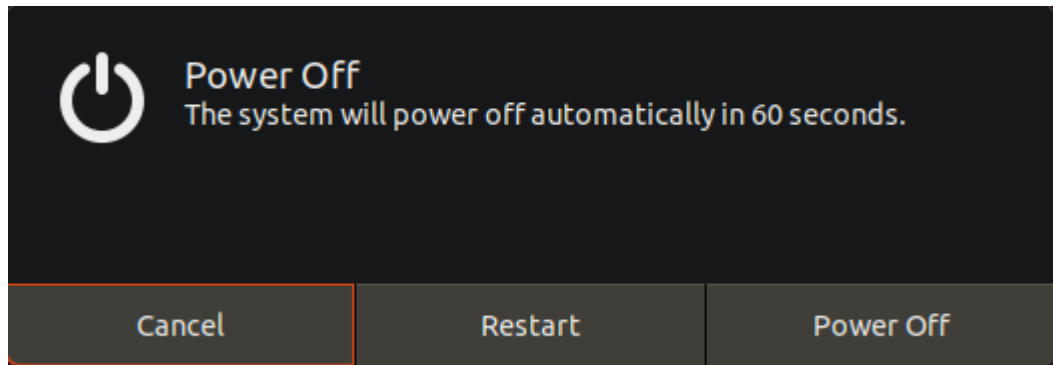
# interfaces(5) file used by ifup(8) and ifdown(8)
auto lo
iface lo inet loopback

#primary network interface
auto ens33
iface ens33 inet static
    address 192.168.1.6
    netmask 255.255.255.0
    network 192.168.1.0
    broadcast 192.268.1.255
    gateway 192.168.1.1
```

4. Restart jaringan

```
root@ubuntu:/home/bagas# nano /etc/network/interfaces
root@ubuntu:/home/bagas# /etc/init.d/networking restart
[ ok ] Restarting networking (via systemctl): networking.service.
root@ubuntu:/home/bagas#
```

5. Restart ubuntu



6. Masuk sebagai super user atau root lagi dan cek jaringan kembali

```
es  Terminal Sat 16:39
root@ubuntu: /home/bagas

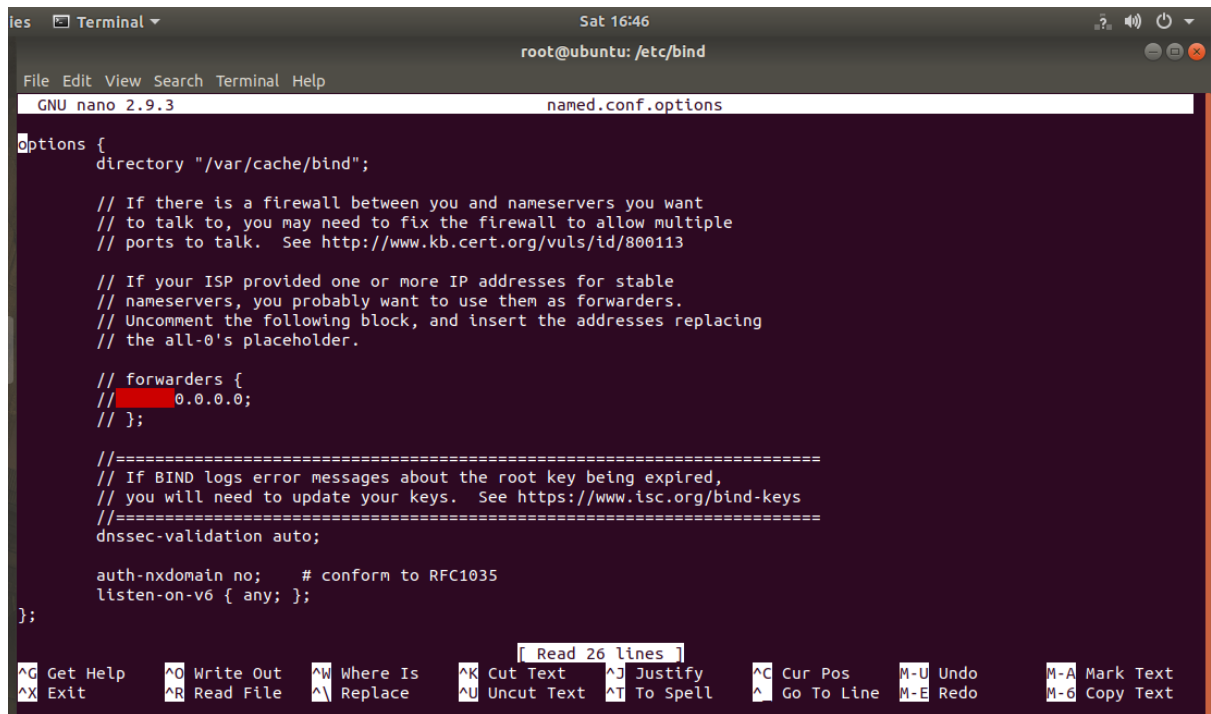
File Edit View Search Terminal Help
bagas@ubuntu:~$ sudo su
[sudo] password for bagas:
root@ubuntu:/home/bagas# ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
    inet 192.168.1.6  netmask 255.255.255.0  broadcast 192.168.1.255
    inet6 fe80::20c:29ff:feab:5d9d  prefixlen 64  scopeid 0x20<link>
    ether 00:0c:29:ab:5d:9d  txqueuelen 1000  (Ethernet)
    RX packets 0  bytes 0 (0.0 B)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 95  bytes 9535 (9.5 KB)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
    inet 127.0.0.1  netmask 255.0.0.0
    inet6 ::1  prefixlen 128  scopeid 0x10<host>
    loop txqueuelen 1000  (Local Loopback)
    RX packets 651  bytes 47352 (47.3 KB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 651  bytes 47352 (47.3 KB)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

root@ubuntu:/home/bagas#
```

- Dan jaringan sudah terestart.

7. Konfigurasi forward



```
File Edit View Search Terminal Help
GNU nano 2.9.3 named.conf.options

options {
    directory "/var/cache/bind";

    // If there is a firewall between you and nameservers you want
    // to talk to, you may need to fix the firewall to allow multiple
    // ports to talk.  See http://www.kb.cert.org/vuls/id/800113

    // If your ISP provided one or more IP addresses for stable
    // nameservers, you probably want to use them as forwarders.
    // Uncomment the following block, and insert the addresses replacing
    // the all-0's placeholder.

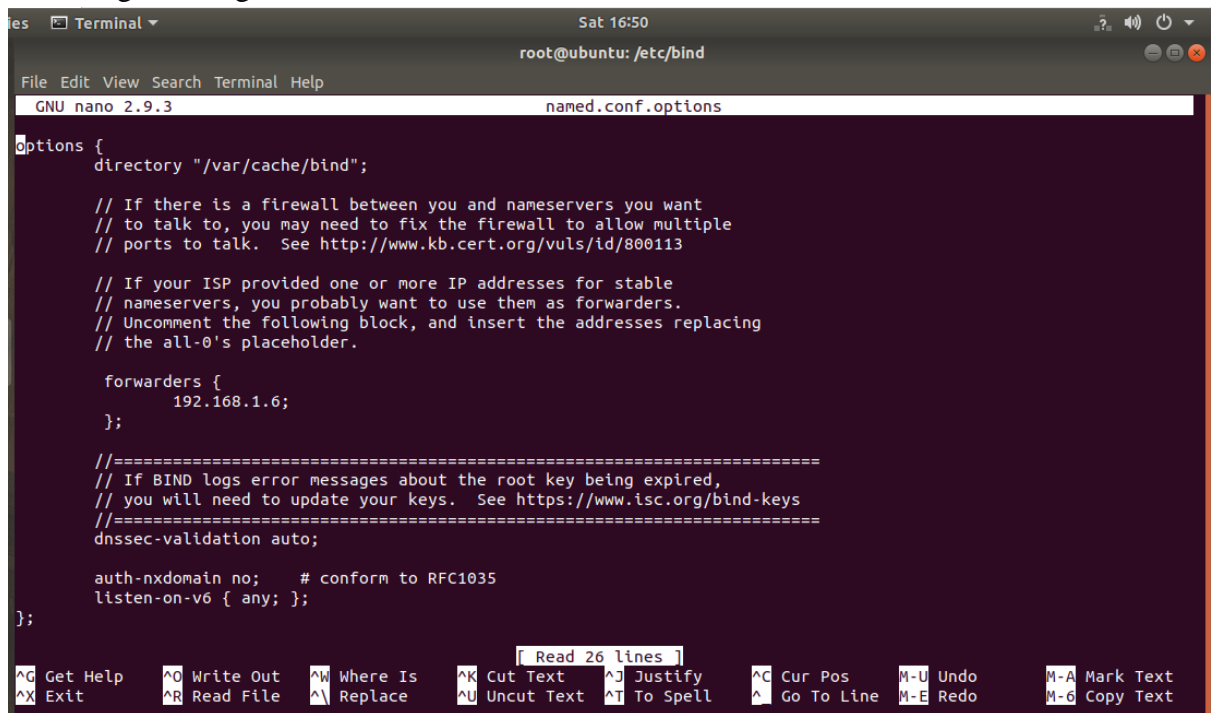
    // forwarders {
    //     0.0.0.0;
    // };

    //=====
    // If BIND logs error messages about the root key being expired,
    // you will need to update your keys.  See https://www.isc.org/bind-keys
    //=====
    dnssec-validation auto;

    auth-nxdomain no;    # conform to RFC1035
    listen-on-v6 { any; };
};

^G Get Help  ^O Write Out  ^W Where Is   ^K Cut Text   ^J Justify    ^C Cur Pos    M-U Undo      M-A Mark Text
^X Exit      ^R Read File  ^\ Replace    ^U Uncut Text ^T To Spell   ^_ Go To Line  M-E Redo      M-G Copy Text
```

- Hilangkan command biar kode berkerja.
- Dan ganti dengan alamat IP kita



```
File Edit View Search Terminal Help
GNU nano 2.9.3 named.conf.options

options {
    directory "/var/cache/bind";

    // If there is a firewall between you and nameservers you want
    // to talk to, you may need to fix the firewall to allow multiple
    // ports to talk.  See http://www.kb.cert.org/vuls/id/800113

    // If your ISP provided one or more IP addresses for stable
    // nameservers, you probably want to use them as forwarders.
    // Uncomment the following block, and insert the addresses replacing
    // the all-0's placeholder.

    forwarders {
        192.168.1.6;
    };

    //=====
    // If BIND logs error messages about the root key being expired,
    // you will need to update your keys.  See https://www.isc.org/bind-keys
    //=====
    dnssec-validation auto;

    auth-nxdomain no;    # conform to RFC1035
    listen-on-v6 { any; };
};

^G Get Help  ^O Write Out  ^W Where Is   ^K Cut Text   ^J Justify    ^C Cur Pos    M-U Undo      M-A Mark Text
^X Exit      ^R Read File  ^\ Replace    ^U Uncut Text ^T To Spell   ^_ Go To Line  M-E Redo      M-G Copy Text
```

8. Konfigurasi local

```
ies Terminal Sat 17:24
root@ubuntu: /etc/bind

File Edit View Search Terminal Help
GNU nano 2.9.3 named.conf.local Modified

//
// 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 "bagas.com" {
    type master;
    file "/etc/bind/db.bagas";
};

zone "1.168.192.in-addr.arpa" {
    type master;
    file "/etc/bind/db.192";
};
```

9. Edit file forward

```
ies Terminal Sat 17:30
root@ubuntu: /etc/bind

File Edit View Search Terminal Help
GNU nano 2.9.3 db.bagas

; BIND data file for local loopback interface
;
$TTL 604800
@ IN SOA localhost. root.localhost. (
    2      ; Serial
    604800 ; Refresh
    86400  ; Retry
    2419200 ; Expire
    604800 ) ; Negative Cache TTL
;
@ IN NS localhost.
@ IN A 127.0.0.1
@ IN AAAA ::1
```

- Edit menggunakan domain kita dan IP kita

```
ies Terminal Sat 17:34
root@ubuntu: /etc/bind

File Edit View Search Terminal Help
GNU nano 2.9.3 db.bagas

; BIND data file for local loopback interface
;
$TTL 604800
@ IN SOA bagas.com. root.bagas.com. (
    2      ; Serial
    604800 ; Refresh
    86400  ; Retry
    2419200 ; Expire
    604800 ) ; Negative Cache TTL
;
@ IN NS bagas.com.
@ IN A 192.168.1.6
```

10. Edit file reverse

```
ies Terminal Sat 17:36
root@ubuntu: /etc/bind

File Edit View Search Terminal Help
GNU nano 2.9.3 db.192

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

- Edit menggunakan domain kita dan IP kita

```

es  Terminal  Sat 17:40
root@ubuntu: /etc/bind

File Edit View Search Terminal Help
GNU nano 2.9.3 db.192 Modified

;
; BIND reverse data file for local loopback interface
;
$TTL      604800
@         IN      SOA      bagas.com. root.bagas.com. (
                        1      ; Serial
                        604800 ; Refresh
                        86400  ; Retry
                        2419200 ; Expire
                        604800 ) ; Negative Cache TTL
;
@         IN      NS       bagas.com.
6         IN      PTR      bagas.com.

```

11. Cek apakah ada salah dalam pengetikan

```

root@ubuntu:/etc/bind# named-checkconf
root@ubuntu:/etc/bind# named-checkzone db.bagas db.192
zone db.bagas/IN: loaded serial 1
OK
root@ubuntu:/etc/bind#

```

- Jika terdapat ok maka tidak ada salah dalam pengetikan atau file berhasil di load

12. Mengganti name server

```

es  Terminal  Sat 17:55
root@ubuntu: /etc/bind

File Edit View Search Terminal Help
GNU nano 2.9.3 /etc/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 to the
# internal DNS stub resolver of systemd-resolved. This file lists all
# configured search domains.
#
# Run "systemd-resolve --status" to see details about the uplink DNS servers
# currently in use.
#
# 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 8.8.8.8
nameserver 8.8.4.4
nameserver 192.168.1.6

```

- Inputkan 8.8.8.8
- Inputkan 8.8.4.4
- Dan inputkan alamat IP kita

13. Restart bind9

```

root@ubuntu:/etc/bind# /etc/init.d/bind9 restart
[ ok ] Restarting bind9 (via systemctl): bind9.service.
root@ubuntu:/etc/bind#

```

14. Restart service

```

root@ubuntu:/etc/bind# service bind9 restart
root@ubuntu:/etc/bind#

```

15. Pengecekan dns

```

root@ubuntu:/etc/bind# nslookup bagas.com
Server:      192.168.1.6
Address:     192.168.1.6#53

Name:   bagas.com
Address: 192.168.1.6
root@ubuntu:/etc/bind#

```

```
root@ubuntu:/etc/bind# nslookup 192.168.1.6
6.1.168.192.in-addr.arpa      name = bagas.com.

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

```
root@ubuntu:/etc/bind# dig bagas.com

; <<>> DiG 9.11.3-1ubuntu1.18-Ubuntu <<>> bagas.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 6576
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 4096
;; COOKIE: e7f768e3e0dcff94ab82a5c963b0ea8a452b1fc03656ce85 (good)
;; QUESTION SECTION:
;bagas.com.                IN      A

;; ANSWER SECTION:
bagas.com.                 604800  IN      A      192.168.1.6

;; AUTHORITY SECTION:
bagas.com.                 604800  IN      NS      bagas.com.

;; Query time: 0 msec
;; SERVER: 192.168.1.6#53(192.168.1.6)
;; WHEN: Sat Dec 31 18:06:02 PST 2022
;; MSG SIZE rcvd: 96

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

KESIMPULAN :

Dari percobaan di atas kita dapat belajar atau mengetahui bagaimana cara menginstal bind9, cara mengkonfigurasinya dan bagaimana cara menjalankannya.