

# TUGAS PRAKTIKUM

## SOAL PRAKTIKUM

Buatlah sebuah DNS Server dengan menggunakan nama panggilan kalian. Dengan ketentuan berikut, domain utama **www.namapanggilan.com (15 poin)** beserta dengan sub domainnya yaitu:

**datadiri.namapanggilan.com (10 poin)**

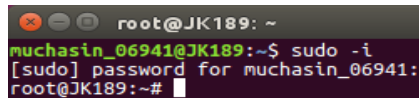
**sosmed.namapanggilan.com (10 poin)**

**pendidikan.namapanggilan.com (10 poin)**

Konfigurasi pada sever kalian agar kedua client dapat mengakses dan melakukan ping terhadap domain utama maupun sub domainnya. **(15 poin)**

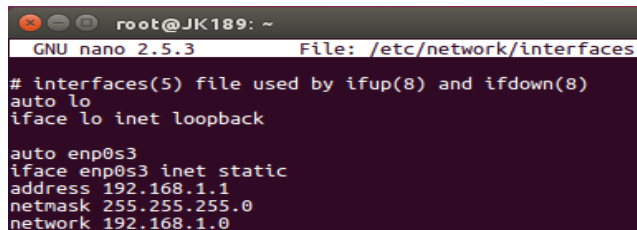
### Jawaban :

1. Login sebagai User Root



```
root@JK189: ~
muchasin_06941@JK189:~$ sudo -i
[sudo] password for muchasin_06941:
root@JK189:~#
```

2. Setting IP address Komputer Server 192.168.1.1/24



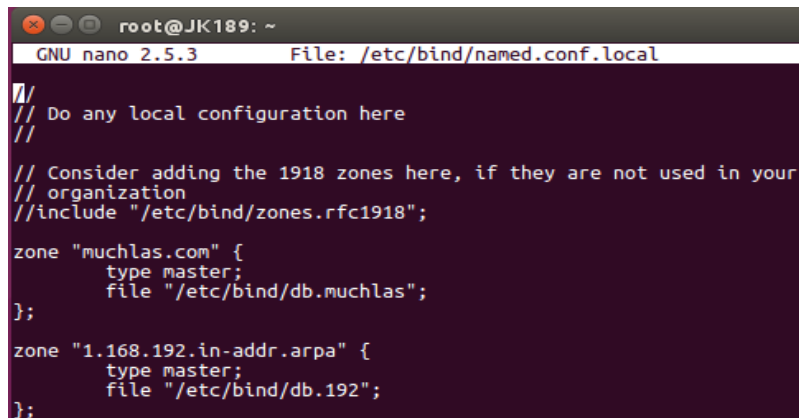
```
root@JK189: ~
GNU nano 2.5.3 File: /etc/network/interfaces

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

auto enp0s3
iface enp0s3 inet static
address 192.168.1.1
netmask 255.255.255.0
network 192.168.1.0
```

3. Konfigurasi file paket bind `named.conf.local` dengan cara:

*# nano /etc/bind/named.conf.local*



```
root@JK189: ~
GNU nano 2.5.3 File: /etc/bind/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 "muchlas.com" {
    type master;
    file "/etc/bind/db.muchlas";
};

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

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4. Copykan file db.local ke db.jarkom

*# cp /etc/bind/db.local /etc/bind/db.namapanggilan*

```
root@JK189: ~  
muchasin_06941@JK189:~$ sudo -i  
[sudo] password for muchasin_06941:  
root@JK189:~# nano /etc/bind/named.conf.local  
root@JK189:~# cp /etc/bind/db.local /etc/bind/db.muchlas
```

5. Edit isi dari file db.namapanggilan dengan perintah:

*# nano /etc/bind/db. namapanggilan*

```
GNU nano 2.5.3 File: /etc/bind/db.muchlas  
;  
; BIND data file for local loopback interface  
;  
$TTL 604800  
@ IN SOA muchlas.com. root.muchlas.com. (  
    2 ; Serial  
    604800 ; Refresh  
    86400 ; Retry  
    2419200 ; Expire  
    604800 ) ; Negative Cache TTL  
;  
@ IN NS muchlas.com.  
@ IN A 192.168.1.1  
www IN A 192.168.1.1  
datadiri IN CNAME www  
sosmed IN CNAME www  
pendidikan IN CNAME www
```

Kemudian simpan dengan kombinasi tombol Ctrl+X, Yes lalu enter.

6. Copykan file db.127 ke db.192

*# cp /etc/bind/db.127 /etc/bind/db.192*

```
root@JK189: ~  
root@JK189:~# nano /etc/bind/db.muchlas  
root@JK189:~# cp /etc/bind/db.127 /etc/bind/db.192
```

7. Edit isi file db.192 dengan perintah

*# nano /etc/bind/db.192*

```
GNU nano 2.5.3 File: /etc/bind/db.192  
;  
; BIND reverse data file for local loopback interface  
;  
$TTL 604800  
@ IN SOA muchlas.com. root.muchlas.com. (  
    1 ; Serial  
    604800 ; Refresh  
    86400 ; Retry  
    2419200 ; Expire  
    604800 ) ; Negative Cache TTL  
;  
@ IN NS www.  
1 IN PTR www.muchlas.com.  
1 IN PTR datadiri.muchlas.com  
1 IN PTR sosmed.muchlas.com  
1 IN PTR pendidikan.muchlas.com
```

Kemudian simpan dengan Ctrl+X, Yes lalu enter.

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8. Restart service dengan perintah:

*# /etc/init.d/bind9 restart*

```
root@JK189: ~  
root@JK189:~# /etc/init.d/bind9 restart  
[ ok ] Restarting bind9 (via systemctl): bind9.service.  
root@JK189:~#
```

9. Konfigurasi IP Tables dengan perintah:

```
root@JK189: ~  
GNU nano 2.5.3 File: /etc/rc.local  
  
#  
# By default this script does nothing.  
  
exit 0  
  
iptables -t nat -A POSTROUTING -o enp0s8 -j MASQUERADE  
iptables -A FORWARD -i enp0s8 -o enp0s3 -m state --state RELATED,ESTABLISHED -s  
iptables -A FORWARD -i enp0s3 -o enp0s8 -j ACCEPT
```

10. Login Ke sisi client dengan root user :

```
root@JK189-client: ~  
muchlas_06941@JK189-client:~$ sudo -i  
[sudo] password for muchlas_06941:  
root@JK189-client:~#
```

11. Kemudian konfigurasi interface network client sebagai berikut :

```
root@JK189-client: ~  
GNU nano 2.5.3 File: /etc/network/interfaces Modified  
  
# interfaces(5) file used by ifup(8) and ifdown(8)  
auto lo  
iface lo inet loopback  
  
auto enp0s3  
iface enp0s3 inet static  
address 192.168.1.8  
netmask 255.255.255.0  
gateway 192.168.1.1
```

12. Edit resolv.conf pada client 1 sebagai berikut :

```
root@JK189-client: ~  
GNU nano 2.5.3 File: /etc/resolv.conf  
  
# Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)  
# DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN  
nameserver 192.168.1.1  
search muchlas.com
```

13. Kemudian check dns dengan perintah nslookup sebagai berikut :

```
root@JK189-client: ~  
root@JK189-client:~# nslookup 192.168.1.1  
Server: 192.168.1.1  
Address: 192.168.1.1#53  
  
1.1.168.192.in-addr.arpa name = www.muchlas.com.  
1.1.168.192.in-addr.arpa name = datadiri.muchlas.com.1.168.192.in-addr.arpa.  
1.1.168.192.in-addr.arpa name = sosmed.muchlas.com.1.168.192.in-addr.arpa.  
1.1.168.192.in-addr.arpa name = pendidikan.muchlas.com.1.168.192.in-addr.arpa.  
root@JK189-client:~#
```

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Lakukan juga pada domain, namapanggilan.com

```
root@JK189-client: ~
root@JK189-client:~# nslookup www.muchlas.com
Server:      192.168.1.1
Address:     192.168.1.1#53

Name:   www.muchlas.com
Address: 192.168.1.1

root@JK189-client:~#
```

Lakukan juga pada Sub domain, datadiri.namapanggilan.com

```
root@JK189-client: ~
root@JK189-client:~# nslookup datadiri.muchlas.com
Server:      192.168.1.1
Address:     192.168.1.1#53

datadiri.muchlas.com canonical name = www.muchlas.com.
Name:   www.muchlas.com
Address: 192.168.1.1

root@JK189-client:~#
```

Lakukan juga pada Sub domain, sosmed.namapanggilan.com

```
root@JK189-client: ~
root@JK189-client:~# nslookup sosmed.muchlas.com
Server:      192.168.1.1
Address:     192.168.1.1#53

sosmed.muchlas.com canonical name = www.muchlas.com.
Name:   www.muchlas.com
Address: 192.168.1.1

root@JK189-client:~#
```

Lakukan juga pada Sub domain, pendidikan.namapanggilan.com

```
root@JK189-client: ~
root@JK189-client:~# nslookup pendidikan.muchlas.com
Server:      192.168.1.1
Address:     192.168.1.1#53

pendidikan.muchlas.com canonical name = www.muchlas.com.
Name:   www.muchlas.com
Address: 192.168.1.1

root@JK189-client:~#
```

14. Kemudian kita lakukan konfigurasi terhadap client 2, masuk ke root terlebih dahulu,

```
root@jk189-client2: ~
muchlas_cl2@jk189-client2:~$ sudo -i
[sudo] password for muchlas_cl2:
root@jk189-client2:~#
```

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15. Konfigurasi network interface client 2 sebagai berikut :

```
root@jk189-client2: ~
GNU nano 2.5.3 File: /etc/network/interfaces

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

auto enp0s3
iface enp0s3 inet static
address 192.168.2.10
netmask 255.255.255.0
gateway 192.168.2.1
```

16. Konfigurasi nameserver pada resolv.conf sebagai berikut :

```
root@jk189-client2: ~
GNU nano 2.5.3 File: /etc/resolv.conf Modified

# Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)
# DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN
nameserver 192.168.1.1
search muchlas.com
```

17. Kemudian check dns dengan perintah nslookup sebagai berikut :

```
root@jk189-client2: ~
root@jk189-client2:~# nslookup 192.168.1.1
Server:      192.168.1.1
Address:     192.168.1.1#53

1.1.168.192.in-addr.arpa    name = pendidikan.muchlas.com.1.168.192.in-addr.arpa.
1.1.168.192.in-addr.arpa    name = www.muchlas.com.
1.1.168.192.in-addr.arpa    name = sosmed.muchlas.com.1.168.192.in-addr.arpa.
.                             name = datadiri.muchlas.com.1.168.192.in-addr.arpa.
root@jk189-client2:~#
```

Lakukan juga pada domain, namapanggilan.com

```
root@jk189-client2: ~
root@jk189-client2:~# nslookup www.muchlas.com
Server:      192.168.1.1
Address:     192.168.1.1#53

Name:   www.muchlas.com
Address: 192.168.1.1
root@jk189-client2:~#
```

Lakukan juga pada Sub domain, datadiri.namapanggilan.com

```
root@jk189-client2: ~
root@jk189-client2:~# nslookup datadiri.muchlas.com
Server:      192.168.1.1
Address:     192.168.1.1#53

datadiri.muchlas.com    canonical name = www.muchlas.com.
Name:   www.muchlas.com
Address: 192.168.1.1
root@jk189-client2:~#
```

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Lakukan juga pada Sub domain, [sosmed.namapanggilan.com](http://sosmed.namapanggilan.com)

```
root@jk189-client2: ~
root@jk189-client2:~# nslookup sosmed.muchlas.com
Server:      192.168.1.1
Address:     192.168.1.1#53

sosmed.muchlas.com    canonical name = www.muchlas.com.
Name:   www.muchlas.com
Address: 192.168.1.1

root@jk189-client2:~#
```

Lakukan juga pada Sub domain, [pendidikan.namapanggilan.com](http://pendidikan.namapanggilan.com)

```
root@jk189-client2: ~
root@jk189-client2:~# nslookup pendidikan.muchlas.com
Server:      192.168.1.1
Address:     192.168.1.1#53

pendidikan.muchlas.com canonical name = www.muchlas.com.
Name:   www.muchlas.com
Address: 192.168.1.1

root@jk189-client2:~#
```

18. Kemudian langkah selanjutnya ialah melakukan cek terhadap domain yang telah dikonfigurasi pada client 1, sebagai berikut

```
root@jk189-client2: ~
root@jk189-client2:~# ping www.muchlas.com
PING www.muchlas.com (192.168.1.1) 56(84) bytes of data.
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=1 ttl=64 time=0.209 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=2 ttl=64 time=0.296 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=3 ttl=64 time=0.679 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=4 ttl=64 time=0.421 ms
^C
--- www.muchlas.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3064ms
rtt min/avg/max/mdev = 0.209/0.401/0.679/0.177 ms
root@jk189-client2:~# ping datadiri.muchlas.com
PING www.muchlas.com (192.168.1.1) 56(84) bytes of data.
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=1 ttl=64 time=0.906 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=2 ttl=64 time=0.412 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=3 ttl=64 time=0.415 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=4 ttl=64 time=0.381 ms
^C
--- www.muchlas.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3049ms
rtt min/avg/max/mdev = 0.381/0.528/0.906/0.219 ms
root@jk189-client2:~# ping sosmed.muchlas.com
PING www.muchlas.com (192.168.1.1) 56(84) bytes of data.
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=1 ttl=64 time=0.314 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=2 ttl=64 time=0.366 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=3 ttl=64 time=0.375 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=4 ttl=64 time=0.389 ms
^C
--- www.muchlas.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3036ms
rtt min/avg/max/mdev = 0.314/0.361/0.389/0.028 ms
root@jk189-client2:~# ping pendidikan.muchlas.com
PING www.muchlas.com (192.168.1.1) 56(84) bytes of data.
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=1 ttl=64 time=0.505 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=2 ttl=64 time=0.394 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=3 ttl=64 time=0.382 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=4 ttl=64 time=0.373 ms
^C
--- www.muchlas.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3045ms
rtt min/avg/max/mdev = 0.373/0.413/0.505/0.057 ms
root@jk189-client2:~#
```

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19. Kemudian langkah selanjutnya ialah melakukan cek terhadap domain yang telah dikonfigurasi pada client 2, sebagai berikut

```
root@JK189-client: ~
root@JK189-client:~# ping www.muchlas.com
PING www.muchlas.com (192.168.1.1) 56(84) bytes of data.
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=1 ttl=64 time=0.476 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=2 ttl=64 time=0.361 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=3 ttl=64 time=0.344 ms
64 bytes from www.muchlas.com (192.168.1.1): icmp_seq=4 ttl=64 time=0.545 ms
^C
--- www.muchlas.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3029ms
rtt min/avg/max/mdev = 0.344/0.431/0.545/0.085 ms
root@JK189-client:~# ping datadiri.muchlas.com
PING www.muchlas.com (192.168.1.1) 56(84) bytes of data.
64 bytes from datadiri.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_se
q=1 ttl=64 time=0.198 ms
64 bytes from datadiri.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_se
q=2 ttl=64 time=0.521 ms
64 bytes from datadiri.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_se
q=3 ttl=64 time=0.481 ms
64 bytes from datadiri.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_se
q=4 ttl=64 time=0.370 ms
^C
--- www.muchlas.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3078ms
rtt min/avg/max/mdev = 0.198/0.392/0.521/0.126 ms
root@JK189-client:~# ping sosmed.muchlas.com
PING www.muchlas.com (192.168.1.1) 56(84) bytes of data.
64 bytes from datadiri.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_se
q=1 ttl=64 time=0.426 ms
64 bytes from datadiri.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_se
q=2 ttl=64 time=0.297 ms
64 bytes from datadiri.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_se
q=3 ttl=64 time=0.389 ms
64 bytes from datadiri.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_se
q=4 ttl=64 time=0.434 ms
^C
--- www.muchlas.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3037ms
rtt min/avg/max/mdev = 0.297/0.386/0.434/0.057 ms
root@JK189-client:~# ping pendidikan.muchlas.com
PING www.muchlas.com (192.168.1.1) 56(84) bytes of data.
64 bytes from sosmed.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_seq=
1 ttl=64 time=0.325 ms
64 bytes from sosmed.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_seq=
2 ttl=64 time=0.499 ms
64 bytes from sosmed.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_seq=
3 ttl=64 time=0.439 ms
64 bytes from sosmed.muchlas.com.1.168.192.in-addr.arpa (192.168.1.1): icmp_seq=
4 ttl=64 time=0.387 ms
^C
--- www.muchlas.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3034ms
rtt min/avg/max/mdev = 0.325/0.412/0.499/0.067 ms
root@JK189-client:~#
```