

prefix : 10.92

Config :

Mayur

```
auto eth0
iface eth0 inet dhcp
```

```
auto eth1
iface eth1 inet static
    address 10.92.1.1
    netmask 255.255.255.0
```

```
auto eth2
iface eth2 inet static
    address 10.92.2.1
    netmask 255.255.255.0
```

```
auto eth3
iface eth3 inet static
    address 10.92.3.1
    netmask 255.255.255.0
```

```
auto eth4
iface eth4 inet static
    address 10.92.4.1
    netmask 255.255.255.0
```

```
up iptables -t nat -A POSTROUTING -o eth0 -j MASQUERADE -s 10.92.0.0/16
```

TomatClient

```
auto eth0
iface eth0 inet static
    address 10.92.1.2
    netmask 255.255.255.0
    gateway 10.92.1.1
```

TaugeClient

```
auto eth0
iface eth0 inet static
    address 10.92.2.2
    netmask 255.255.255.0
    gateway 10.92.2.1
```

PokCoyDNSSlave

```
auto eth0
iface eth0 inet static
    address 10.92.3.2
    netmask 255.255.255.0
    gateway 10.92.3.1
```

WortelDNSMaster

```
auto eth0
iface eth0 inet static
    address 10.92.3.3
    netmask 255.255.255.0
    gateway 10.92.3.1
```

BrokoliWebServer

```
auto eth0
iface eth0 inet static
    address 10.92.4.2
    netmask 255.255.255.0
    gateway 10.92.4.1
```

BuncisWebServer

```
auto eth0
iface eth0 inet static
    address 10.92.4.3
    netmask 255.255.255.0
    gateway 10.92.4.1
```

BayamWebServer

```
auto eth0
iface eth0 inet static
    address 10.92.4.4
    netmask 255.255.255.0
    gateway 10.92.4.1
```

Di wortel

```
iptables -t nat -A POSTROUTING -o eth0 -j MASQUERADE -s 10.92.0.0/16
```

2. Tambahkan konfigurasi untuk domain **bayam.yyy.com** yang mengarah ke IP node **Bayam** di **DNS Master**. Dengan cara yang sama, buat konfigurasi domain **brokoli.yyy.com** yang mengarah ke IP node **Brokoli** dan domain **buncis.yyy.com**

yang mengarah ke IP node **Buncis**. Simpan semua konfigurasi dalam folder **Jarkom**. Selama pengerjaan soal, ubah **yyy** menjadi kode kelompok masing-masing (contoh: A02).

konfigurasi untuk domain **bayam.yyy.com** yang mengarah ke IP node **Bayam** di **DNS Master (Wortel)**.

Node mayur wortel add nameserver dlu (pake nano aja)

di mayur dan wortel :

```
nano /etc/resolv.conf
```

```
nameserver 8.8.8.8
```

```
nameserver 1.1.1.1
```

```
nameserver 192.168.122.1
```

Mayur

```
bash 1.sh
```

```
echo nameserver 8.8.8.8 > /etc/resolv.conf
```

```
echo nameserver 1.1.1.1 > /etc/resolv.conf
```

```
echo nameserver 192.168.122.1 > /etc/resolv.conf
```

Wortel :

```
bash 1.sh
```

```
echo nameserver 8.8.8.8 > /etc/resolv.conf
```

```
echo nameserver 1.1.1.1 > /etc/resolv.conf
```

```
echo nameserver 192.168.122.1 > /etc/resolv.conf
```

2. Tambahkan konfigurasi untuk domain **bayam.yyy.com** yang mengarah ke IP node **Bayam** di **DNS Master**. Dengan cara yang sama, buat konfigurasi domain **brokoli.yyy.com** yang mengarah ke IP node **Brokoli** dan domain **buncis.yyy.com** yang mengarah ke IP node **Buncis**. Simpan semua konfigurasi dalam folder **Jarkom**. Selama pengerjaan soal, ubah **yyy** menjadi kode kelompok masing-masing (contoh: A02).

BAYAM

```
wortel
apt-get update
apt-get install bind9 -y
```

```
nano /etc/bind/named.conf.local
```

```
zone "bayam.c05.com" {
    type master;
    file "/etc/bind/jarkom/bayam.c05.com";
    allow-transfer { 10.92.4.4; }; // IP Bayam
};
```

```
nano /etc/bind/jarkom/bayam.c05.com
```

```
$TTL 604800
@      IN      SOA    bayam.c05.com. root.bayam.c05.com. (
                        2023101001    ; Serial
                        604800         ; Refresh
                        86400          ; Retry
                        2419200        ; Expire
                        604800 )       ; Negative Cache TTL
;
@      IN      NS     bayam.c05.com.
@      IN      A      10.92.4.4      ; IP Bayam
```

```
service bind9 restart
```

```
bayam
echo "nameserver 10.92.3.3" > /etc/resolv.conf
```

```
ping bayam.c05.com -c 5
```

BROKOLI

```
wortel
```

```
nano /etc/bind/named.conf.local
```

```
zone "brokoli.c05.com" {
    type master;
    file "/etc/bind/jarkom/brokoli.c05.com";
    allow-transfer { 10.92.4.2; }; // IP Brokoli
};
```

```
nano /etc/bind/jarkom/brokoli.c05.com
```

```
$TTL 604800
@      IN      SOA    brokoli.c05.com. root.brokoli.c05.com. (
                                2023101001    ; Serial
                                604800         ; Refresh
                                86400          ; Retry
                                2419200        ; Expire
                                604800 )       ; Negative Cache TTL
;
@      IN      NS     bayam.c05.com.
@      IN      A      10.92.4.2      ; IP Brokoli
```

service bind9 restart

brokoli

echo "nameserver 10.92.3.3" > /etc/resolv.conf

ping brokoli.c05.com -c 5

BUNCIS

wortel

nano /etc/bind/named.conf.local

```
zone "buncis.c05.com" {
    type master;
    file "/etc/bind/jarkom/brokoli.c05.com";
    allow-transfer { 10.92.4.3; }; // IP Buncis
};
```

nano /etc/bind/jarkom/buncis.c05.com

```
$TTL 604800
@      IN      SOA    buncis.c05.com. root.buncis.c05.com. (
                                2023101001    ; Serial
                                604800         ; Refresh
                                86400          ; Retry
                                2419200        ; Expire
                                604800 )       ; Negative Cache TTL
;
@      IN      NS     buncis.c05.com.
@      IN      A      10.92.4.3      ; IP Buncis
```

service bind9 restart

buncis

echo "nameserver 10.92.3.3" > /etc/resolv.conf

ping buncis.c05.com -c 5

3. Tambahkan domain alias berupa **www.bayam.yyy.com** pada alamat **bayam.yyy.com** dan **www.brokoli.yyy.com** pada alamat **brokoli.yyy.com**.

wortel

nano /etc/bind/jarkom/bayam.c05.com

```
$TTL 604800
@      IN      SOA    bayam.c05.com. root.bayam.c05.com. (
                        2023101001 ; Serial
                        604800      ; Refresh
                        86400       ; Retry
                        2419200     ; Expire
                        604800 )    ; Negative Cache TTL
;
@      IN      NS     bayam.c05.com.
@      IN      A       10.92.4.4   ; IP Bayam
www    IN      CNAME   bayam.c05.com. ; Alias
```

service bind9 restart

bayam

ping bayam.c05.com -c 5

ping www.bayam.c05.com -c 5

wortel

nano /etc/bind/jarkom/brokoli.c05.com

```
$TTL 604800
@      IN      SOA    brokoli.c05.com. root.brokoli.c05.com. (
                        2023101001 ; Serial
                        604800      ; Refresh
                        86400       ; Retry
                        2419200     ; Expire
                        604800 )    ; Negative Cache TTL
;
@      IN      NS     brokoli.c05.com.
@      IN      A       10.92.4.2   ; Ganti dengan IP node Brokoli
www    IN      CNAME   brokoli.c05.com. ; Alias
```

service bind9 restart

```
brokoli
ping brokoli.c05.com -c 5
ping www.brokoli.c05.com -c 5
```

```
buncis
wortel
```

```
nano /etc/bind/jarkom/buncis.c05.com
```

```
$TTL 604800
@      IN      SOA    buncis.c05.com. root.buncis.c05.com. (
                        2023101001 ; Serial
                        604800      ; Refresh
                        86400       ; Retry
                        2419200     ; Expire
                        604800 )    ; Negative Cache TTL
;
@      IN      NS     buncis.c05.com.
@      IN      A      10.92.4.3    ; Ganti dengan IP node Buncis
www    IN      CNAME  buncis.c05.com. ; Alias
```

```
service bind9 restart
```

```
ping buncis.c05.com -c 5
ping www.buncis.c05.com -c 5
```

4. Tambahkan record reverse domain untuk domain **brokoli.c05.com**

```
brokoli ip (webserver): 10.92.4.2
service bind9 restart
wortel ip(master) : 10.92.3.3
```

Wortel DNS Master

```
nano /etc/bind/named.conf.local
```

```
zone "4.92.10.in-addr.arpa" {
    type master;
    file "/etc/bind/jarkom/4.92.10.in-addr.arpa";
};
```

```
cp /etc/bind/db.local /etc/bind/jarkom/4.92.10.in-addr.arpa
```

```
nano /etc/bind/jarkom/4.92.10.in-addr.arpa
```

```

;
; BIND data file for local loopback interface
;
$TTL 604800
@ IN SOA brokoli.c05.com. root.brokoli.c05.com. (
        2024100601 ; Serial
        604800 ; Refresh
        86400 ; Retry
        2419200 ; Expire
        604800 ) ; Negative Cache TTL
;
4.92.10.in-addr.arpa. IN NS brokoli.c05.com.
2 IN PTR brokoli.c05.com.
4.92.10.in-addr.arpa. IN NS buncis.c05.com.
3 IN PTR buncis.c05.com.;

```

service bind9 restart

Di node yg lain client

```

apt-get update
apt-get install dnsutils

nano /etc/resolv.conf
echo nameserver 10.92.3.3 > /etc/resolv.conf

```

host -t PTR 10.92.4.2

5. Change the SOA record of the bayam.yyy.com domain according to the following conditions:

nano /etc/bind/jarkom/bayam.c05.com

```

$TTL 43200 ; 12 hours in seconds
@ IN SOA bayam.c05.com. root.bayam.c05.com. (
        2023101005 ; Serial
        7200 ; Refresh (2 hours in seconds)
        1800 ; Retry (30 minutes in seconds)
        1209600 ; Expire (2 weeks in seconds)
        43200 ) ; Negative Cache TTL (12 hours in seconds)
;
@ IN NS bayam.c05.com.
@ IN A 10.92.4.4 ; IP Bayam

```



```
www IN CNAME bayam.c05.com. ; Alias
```

```
service bind9 restart
```

```
bayam
```

```
ping bayam.c05.com -c 5
```

```
ping www.bayam.c05.com -c 5
```

6.

```
nano /etc/bind/named.conf.local
```

```
zone "bayam.c05.com" {  
    type master;  
    notify yes;  
    also-notify{ 10.92.3.2; };  
    allow-transfer { 10.92.3.2; }; // Adding Pokcoy IP  
    file "/etc/bind/jarkom/bayam.c05.com";  
};
```

```
zone "brokoli.c05.com" {  
    type master;  
    notify yes;  
    also-notify{ 10.92.3.2; };  
    allow-transfer { 10.92.3.2; }; // Adding Pokcoy IP  
    file "/etc/bind/jarkom/brokoli.c05.com";  
};
```

```
zone "buncis.c05.com" {  
    type master;  
    notify yes;  
    also-notify{ 10.92.3.2; };  
    allow-transfer { 10.92.3.2; }; // Adding Pokcoy IP  
    file "/etc/bind/jarkom/buncis.c05.com";  
};
```

```
service bind9 restart
```

```
pokcoy
```

```
apt-get update
```

```
apt-get install bind9 -y
```

```
nano /etc/bind/named.conf.local
```

```
zone "bayam.c05.com" {  
    type slave;
```



```
@      IN      NS      brokoli.c05.com.
@      IN      A       10.92.4.2      ; Ganti dengan IP node Brokoli
www    IN      CNAME   brokoli.c05.com. ; Alias untuk www
vitamin IN A 10.92.3.2; IP untuk Pokcoy
www.vitamin IN CNAME vitamin.brokoli.c05.com. ; Alias untuk www.vitamin
```

tomat client

```
ping vitamin.brokoli.c05.com -c 5
ping www.vitamin.brokoli.c05.com -c 5
```

7. Karena membutuhkan tempat untuk menyimpan resep brokoli, buatlah subdomain berupa **vitamin.brokoli.yyy.com** dengan alias **www.vitamin.brokoli.yyy.com** dengan mendelegasikannya dari **Wortel** ke **Pokcoy** dengan alamat IP menuju **Brokoli** yang diatur di folder **Vitamin**.

Delegasi

```
nano /etc/bind/jarkom/brokoli.c05.com
```

```
$TTL 604800
```

```
@      IN      SOA      brokoli.c05.com. root.brokoli.c05.com. (
                                2023101001  ; Serial
                                604800       ; Refresh
                                86400        ; Retry
                                2419200     ; Expire
                                604800      ; Negative Cache TTL
                                )
;
```

```
@      IN      NS      brokoli.c05.com.
@      IN      A       10.92.4.2      ; Ganti dengan IP node Brokoli
www    IN      CNAME   brokoli.c05.com. ; Alias untuk www
vitamin IN A 10.92.3.2 ; IP untuk Pokcoy
www.vitamin IN CNAME vitamin.brokoli.c05.com. ; Alias untuk www.vitamin
```

```
nano /etc/bind/named.conf.options
```

```
allow-query{any;};
```

```
nano /etc/bind/named.conf.local
```

```
// zone "brokoli.c05.com" {
    type master;
    file "/etc/bind/jarkom/brokoli.c05.com";
    allow-transfer { "10.92.3.2"; }; // Masukan IP pokcoy
```

```
};
```

```
service bind9 restart
```

```
pokcoy
```

```
nano /etc/bind/named.conf.options
```

```
comment dnssc
```

```
allow-query{any};
```

```
nano /etc/bind/named.conf.local
```

```
zone "vitamin.brokoli.c05.com" {
```

```
    type master;
```

```
    file "/etc/bind/vitamins/vitamin.brokoli.c05.com";
```

```
};
```

```
mkdir /etc/bind/vitamin
```

```
cp /etc/bind/db.local /etc/bind/vitamin/vitamin.brokoli.c05.com
```

```
nano /etc/bind/vitamin/vitamin.brokoli.c05.com
```

```
;
```

```
; BIND data file for local loopback interface
```

```
;
```

```
$TTL 604800
```

```
@ IN SOA vitamin.brokoli.c05.com. root.vitamin.brokoli.c05.com. (  
    2024100601 ; Serial  
    604800 ; Refresh  
    86400 ; Retry  
    2419200 ; Expire  
    604800 ) ; Negative Cache TTL
```

```
;
```

```
@ IN NS vitamin.brokoli.c05.com.
```

```
@ IN A 10.92.3.2 ; IP Pokcoy
```

```
www IN CNAME vitamin.brokoli.c05.com. ; Alias www.vitamin.brokoli.c05.com
```

```
service bind9 restart
```

8. Buatlah subdomain khusus untuk kandungan brokoli dengan akses

k1.vitamin.brokoli.yyy.com dengan alias **www.k1.vitamin.brokoli.yyy.com** yang mengarah ke IP **brokoli** dan diatur di folder **k1**.