

Laporan Praktikum Modul 2

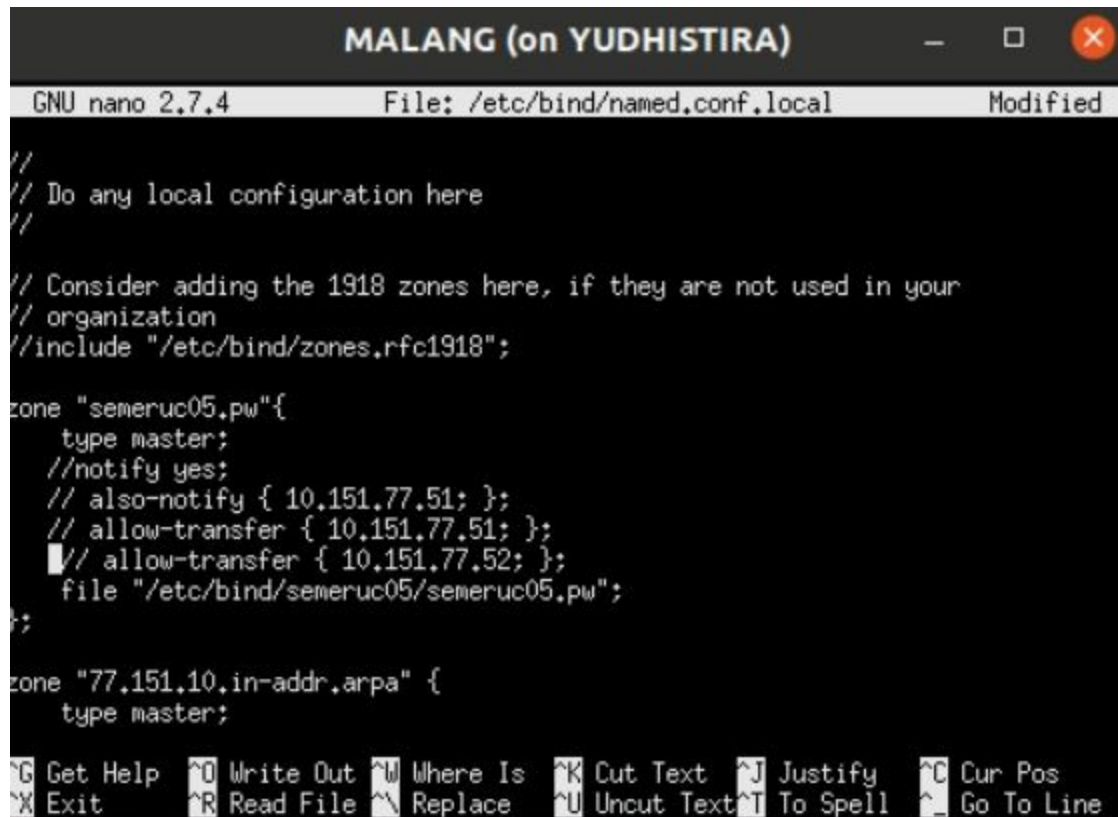
Kelompok Jarkom C05

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1. Membuat sebuah website utama dengan alamat

<http://semeruyyy.pw>



```

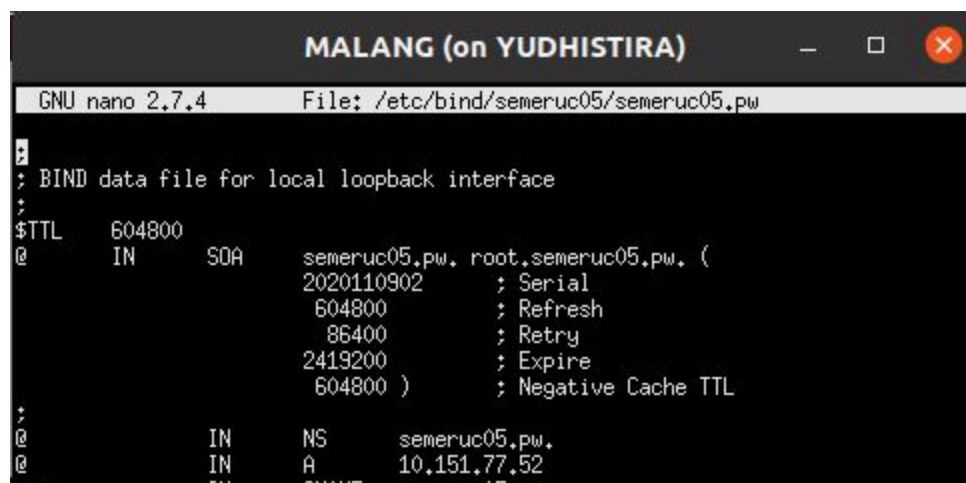
MALANG (on YUDHISTIRA)
GNU nano 2.7.4      File: /etc/bind/named.conf.local      Modified

//
// 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 "semeruc05.pw"{
    type master;
    //notify yes;
    // also-notify { 10.151.77.51; };
    // allow-transfer { 10.151.77.51; };
    // allow-transfer { 10.151.77.52; };
    file "/etc/bind/semeruc05/semeruc05.pw";
};

zone "77.151.10.in-addr.arpa" {
    type master;

```



```

MALANG (on YUDHISTIRA)
GNU nano 2.7.4      File: /etc/bind/semeruc05/semeruc05.pw

;
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA      semeruc05.pw. root.semeruc05.pw. (
        2020110902      ; Serial
        604800          ; Refresh
        86400           ; Retry
        2419200         ; Expire
        604800 )        ; Negative Cache TTL
;
@         IN      NS       semeruc05.pw.
@         IN      A        10.151.77.52

```

Hasil ping:

```

GRESIK (on YUDHISTIRA)
64 bytes from 10.151.77.50 (10.151.77.50): icmp_seq=7 ttl=63 time=0.402 ms
64 bytes from 10.151.77.50 (10.151.77.50): icmp_seq=8 ttl=63 time=0.381 ms
64 bytes from 10.151.77.50 (10.151.77.50): icmp_seq=9 ttl=63 time=0.578 ms
64 bytes from 10.151.77.50 (10.151.77.50): icmp_seq=10 ttl=63 time=0.343 ms
^C
--- semeruc05.pw ping statistics ---
10 packets transmitted, 10 received, 0% packet loss, time 9362ms
rtt min/avg/max/mdev = 0.268/0.469/0.646/0.129 ms
root@JARKOM:~# ping semeruc05.pw
PING semeruc05.pw (10.151.77.52) 56(84) bytes of data.
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=1 ttl=63 time=0.331 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=2 ttl=63 time=0.627 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=3 ttl=63 time=0.438 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=4 ttl=63 time=0.449 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=5 ttl=63 time=0.672 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=6 ttl=63 time=0.731 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=7 ttl=63 time=0.481 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=8 ttl=63 time=0.559 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=9 ttl=63 time=0.595 ms
^C
--- semeruc05.pw ping statistics ---
9 packets transmitted, 9 received, 0% packet loss, time 8280ms

```

2. Memiliki alias <http://www.semeruyyy.pw>

```

MALANG (on YUDHISTIRA)
GNU nano 2.7.4      File: /etc/bind/semeruc05/semeruc05.pw      Modified
;
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA      semeruc05.pw. root.semeruc05.pw. (
2020110902      ; Serial
604800          ; Refresh
86400           ; Retry
2419200         ; Expire
604800 )         ; Negative Cache TTL
;
@         IN      NS       semeruc05.pw.
@         IN      A        10.151.77.52
www       IN      CNAME    semeruc05.pw.

```

Hasil Ping:

```

GRESIK (on YUDHISTIRA)
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=1 ttl=63 time=0.331 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=2 ttl=63 time=0.627 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=3 ttl=63 time=0.438 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=4 ttl=63 time=0.449 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=5 ttl=63 time=0.672 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=6 ttl=63 time=0.731 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=7 ttl=63 time=0.481 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=8 ttl=63 time=0.559 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=9 ttl=63 time=0.595 ms
^C
--- semeruc05.pw ping statistics ---
9 packets transmitted, 9 received, 0% packet loss, time 8280ms
rtt min/avg/max/mdev = 0.331/0.542/0.731/0.122 ms
root@JARKOM:~# ping www.semeruc05.pw
PING semeruc05.pw (10.151.77.52) 56(84) bytes of data.
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=1 ttl=63 time=0.256 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=2 ttl=63 time=0.395 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=3 ttl=63 time=0.518 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=4 ttl=63 time=0.353 ms
^C
--- semeruc05.pw ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3073ms
rtt min/avg/max/mdev = 0.256/0.380/0.518/0.096 ms

```

3. Memiliki subdomain <http://penanjakan.semeruyyy.pw> yang diatur DNS-nya pada MALANG dan mengarah ke IP Server PROBOLINGGO

```

MALANG (on YUDHISTIRA)
GNU nano 2.7.4      File: /etc/bind/semeruc05/semeruc05.pw      Modified
;
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA      semeruc05.pw. root.semeruc05.pw. (
2020110902      ; Serial
604800          ; Refresh
86400           ; Retry
2419200         ; Expire
604800 )         ; Negative Cache TTL
;
@         IN      NS       semeruc05.pw.
@         IN      A        10.151.77.52
www       IN      CNAME    semeruc05.pw.
penanjakan IN      A        10.151.77.52

```

Hasil ping:

```

GRESIK (on YUDHISTIRA)
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=1 ttl=63 time=0.256 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=2 ttl=63 time=0.395 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=3 ttl=63 time=0.518 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=4 ttl=63 time=0.353 ms
^C
--- semeruc05.pw ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3073ms
rtt min/avg/max/mdev = 0.256/0.380/0.518/0.096 ms
root@JARKOM:~# ping penanjakan.semeruc05.pw
PING penanjakan.semeruc05.pw (10.151.77.52) 56(84) bytes of data.
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=1 ttl=63 time=0.274 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=2 ttl=63 time=0.724 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=3 ttl=63 time=0.654 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=4 ttl=63 time=0.509 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=5 ttl=63 time=0.491 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=6 ttl=63 time=0.664 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=7 ttl=63 time=1.53 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=8 ttl=63 time=0.583 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=9 ttl=63 time=0.620 ms
^C
--- penanjakan.semeruc05.pw ping statistics ---
9 packets transmitted, 9 received, 0% packet loss, time 8171ms
rtt min/avg/max/mdev = 0.274/0.672/1.534/0.330 ms

```

4. Dibuatkan reverse domain untuk domain utama

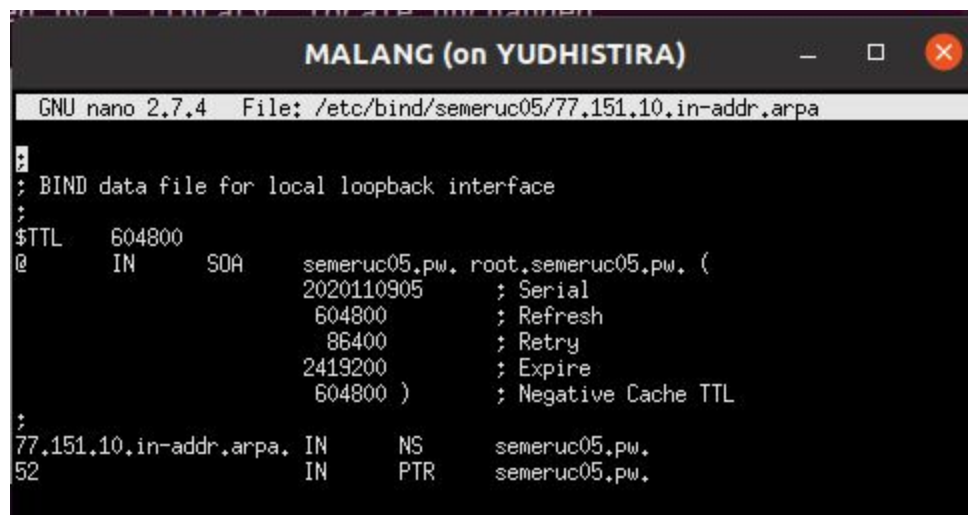
```

MALANG (on YUDHISTIRA)
GNU nano 2.7.4      File: /etc/bind/named.conf.local

    notify yes;
    also-notify { 10.151.77.51; };
    allow-transfer { 10.151.77.51; };
    // allow-transfer { 10.151.77.52; };
    file "/etc/bind/semeruc05/semeruc05.pw";
};

zone "77.151.10.in-addr.arpa" {
    type master;
    file "/etc/bind/semeruc05/77.151.10.in-addr.arpa";
};

```

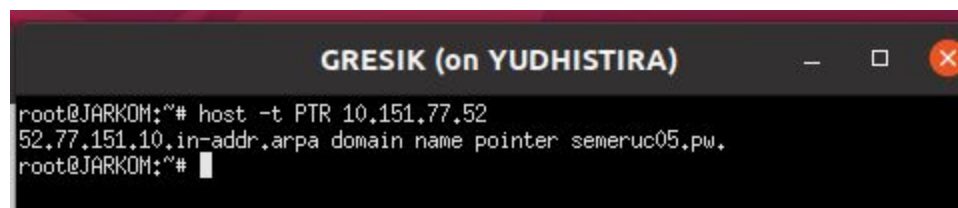


```

MALANG (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/bind/semeruc05/77.151.10.in-addr.arpa
;
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA      semeruc05.pw. root.semeruc05.pw. (
        2020110905      ; Serial
        604800          ; Refresh
        86400           ; Retry
        2419200         ; Expire
        604800 )        ; Negative Cache TTL
;
77.151.10.in-addr.arpa. IN      NS      semeruc05.pw.
52                IN      PTR      semeruc05.pw.

```

Hasil Ping:

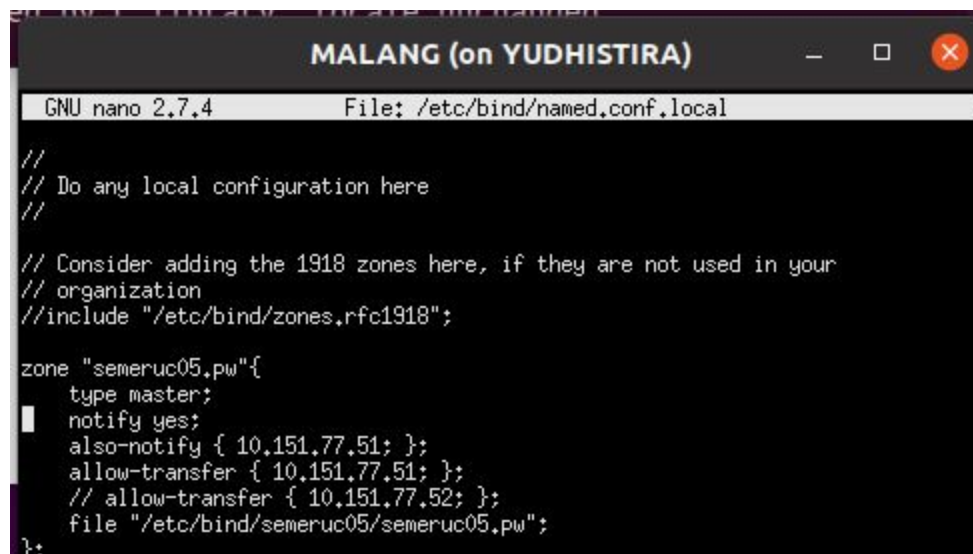


```

GRESIK (on YUDHISTIRA)
root@JARKOM:~# host -t PTR 10.151.77.52
52.77.151.10.in-addr.arpa domain name pointer semeruc05.pw.
root@JARKOM:~#

```

5. Dibuatkan DNS Server Slave pada MOJOKERTO



```

MALANG (on YUDHISTIRA)
GNU nano 2.7.4 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 "semeruc05.pw"{
    type master;
    notify yes;
    also-notify { 10.151.77.51; };
    allow-transfer { 10.151.77.51; };
    // allow-transfer { 10.151.77.52; };
    file "/etc/bind/semeruc05/semeruc05.pw";
};

```

```

MOJOKERTO (on YUDHISTIRA)
GNU nano 2.7.4      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 "semeruc05.pw" {
    type slave;
    masters { 10.151.77.50; }; // Masukkan IP MALANG tanpa tanda petik
    file "/var/lib/bind/semeruc05.pw";
};

```

Hasil:

MALANG (on YUDHISTIRA)	GRESIK (on YUDHISTIRA)
<pre> // 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 "semeruc05.pw"{ type master; notify yes; also-notify { 10.151.77.51; }; allow-transfer { 10.151.77.51; }; // allow-transfer { 10.151.77.52; }; file "/etc/bind/semeruc05/semeruc05.pw"; }; zone "77.151.10.in-addr.arpa" { type master; </pre>	<pre> root@JARKOM:~# host -t PTR 10.151.77.52 52.77.151.10.in-addr.arpa domain name pointer semeruc05.pw. root@JARKOM:~# ping semeruc05.pw PING semeruc05.pw (10.151.77.52) 56(84) bytes of data: 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=1 ttl=63 time=2.92 ms 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=2 ttl=63 time=0.447 ms 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=3 ttl=63 time=0.390 ms 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=4 ttl=63 time=0.367 ms 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=5 ttl=63 time=0.482 ms 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=6 ttl=63 time=0.329 ms 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=7 ttl=63 time=0.480 ms 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=8 ttl=63 time=0.418 ms 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=9 ttl=63 time=0.442 ms 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=10 ttl=63 time=0.685 ms 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=11 ttl=63 time=0.515 ms 64 bytes from 10.151.77.52 (10.151.77.52): icmp_seq=12 ttl=63 time=0.414 ms </pre>
<pre> root@JARKOM:~# service bind9 stop [.....] Stopping domain name service....: bind9waiting for pid 1945 to die ok </pre>	

6. Subdomain dengan alamat <http://gunung.semeruc05.pw> yang didelegasikan pada server MOJOKERTO dan mengarah ke IP Server PROBOLINGGO

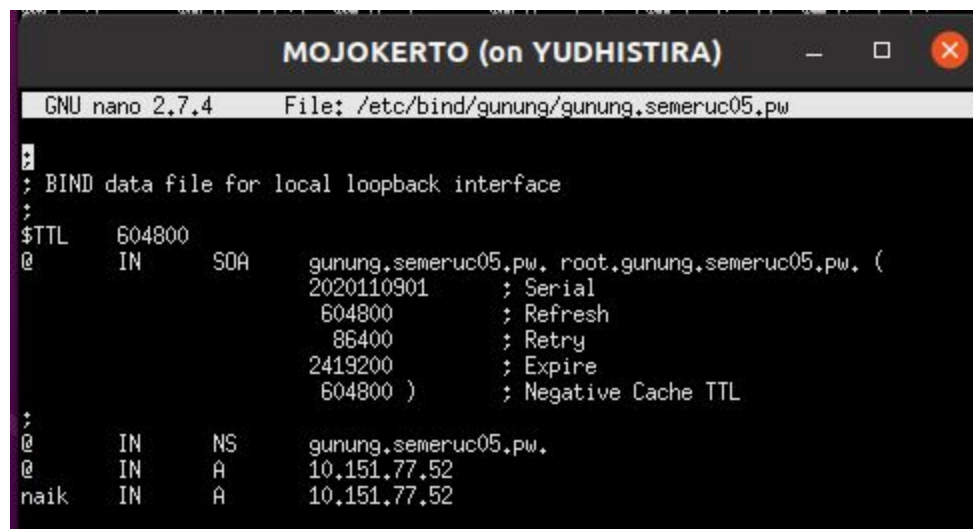
```
MALANG (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/bind/semeruc05/semeruc05.pw
;
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA      semeruc05.pw. root.semeruc05.pw. (
2020110902 ; Serial
604800     ; Refresh
86400      ; Retry
2419200    ; Expire
604800     ; Negative Cache TTL
;
@         IN      NS       semeruc05.pw.
@         IN      A        10.151.77.52
www       IN      CNAME    semeruc05.pw.
penanjakan IN      A        10.151.77.52
www.penanjakan IN      CNAME    penanjakan
ns1       IN      A        10.151.77.52
gunung    IN      NS       ns1
```

```
MOJOKERTO (on YUDHISTIRA)
GNU nano 2.7.4 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 "semeruc05.pw" {
    type slave;
    masters { 10.151.77.50; }; // Masukkan IP MALANG tanpa tanda petik
    file "/var/lib/bind/semeruc05.pw";
};

zone "gunung.semeruc05.pw" {
    type master;
    file "/etc/bind/gunung/gunung.semeruc05.pw";
    allow-transfer {any;};
};
```

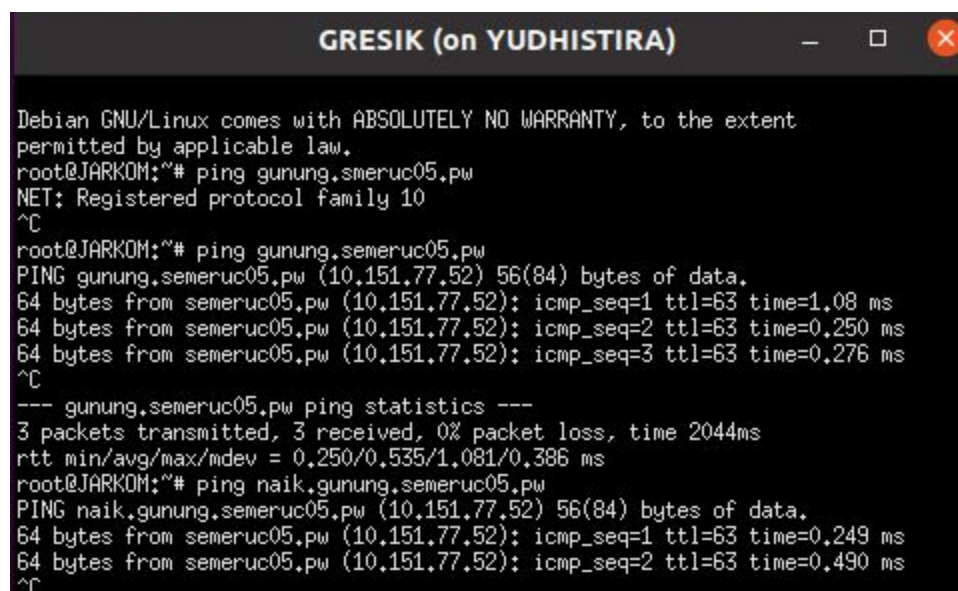



```

MOJOKERTO (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/bind/gunung/gunung.semeruc05.pw
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA      gunung.semeruc05.pw. root.gunung.semeruc05.pw. (
                                2020110901      ; Serial
                                604800            ; Refresh
                                86400             ; Retry
                                2419200           ; Expire
                                604800 )          ; Negative Cache TTL
;
@         IN      NS       gunung.semeruc05.pw.
@         IN      A        10.151.77.52
naik      IN      A        10.151.77.52

```

Hasil:



```

GRESIK (on YUDHISTIRA)
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
root@JARKOM:~# ping gunung.semeruc05.pw
NET: Registered protocol family 10
^C
root@JARKOM:~# ping gunung.semeruc05.pw
PING gunung.semeruc05.pw (10.151.77.52) 56(84) bytes of data.
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=1 ttl=63 time=1.08 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=2 ttl=63 time=0.250 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=3 ttl=63 time=0.276 ms
^C
--- gunung.semeruc05.pw ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2044ms
rtt min/avg/max/mdev = 0.250/0.535/1.081/0.386 ms
root@JARKOM:~# ping naik.gunung.semeruc05.pw
PING naik.gunung.semeruc05.pw (10.151.77.52) 56(84) bytes of data.
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=1 ttl=63 time=0.249 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=2 ttl=63 time=0.490 ms
^C

```

7. Dibuatkan subdomain dengan nama

<http://naik.gunung.semeruc05.pw>, domain ini diarahkan ke IP
Server PROBOLINGGO

```

MOJOKERTO (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/bind/gunung/gunung.semeruc05.pw
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA      gunung.semeruc05.pw. root.gunung.semeruc05.pw. (
        2020110901      ; Serial
        604800          ; Refresh
        86400           ; Retry
        2419200         ; Expire
        604800 )        ; Negative Cache TTL
;
@         IN      NS       gunung.semeruc05.pw.
@         IN      A        10.151.77.52
naik      IN      A        10.151.77.52

```

Hasil:

```

GRESIK (on YUDHISTIRA)
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
root@JARKOM:~# ping gunung.semeruc05.pw
NET: Registered protocol family 10
^C
root@JARKOM:~# ping gunung.semeruc05.pw
PING gunung.semeruc05.pw (10.151.77.52) 56(84) bytes of data.
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=1 ttl=63 time=1.08 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=2 ttl=63 time=0.250 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=3 ttl=63 time=0.276 ms
^C
--- gunung.semeruc05.pw ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2044ms
rtt min/avg/max/mdev = 0.250/0.535/1.081/0.386 ms
root@JARKOM:~# ping naik.gunung.semeruc05.pw
PING naik.gunung.semeruc05.pw (10.151.77.52) 56(84) bytes of data.
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=1 ttl=63 time=0.249 ms
64 bytes from semeruc05.pw (10.151.77.52): icmp_seq=2 ttl=63 time=0.490 ms
^C
--- naik.gunung.semeruc05.pw ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 0.249/0.369/0.490/0.122 ms

```

8. Mengatur web server dengan Domain <http://semeruyyy.pw> memiliki DocumentRoot pada `/var/www/semeruyyy.pw`

```
PROBOLINGGO (on YUDHISTIRA)
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.0.1. Set the 'ServerName' directive globally to suppress this message
[ ok ] Starting periodic command scheduler: cron.
Debian GNU/Linux 9 JARKOM tty0
JARKOM login: root
Password:
Last login: Wed Nov 11 10:15:13 UTC 2020 on tty0
Linux JARKOM 4.9.25 #2 Sun May 21 14:29:37 UTC 2017 x86_64

The programs included with the Debian GNU/Linux system are free software; the exact distribution terms for each program are described in the individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.
root@JARKOM:~# cd /var/www/semeruc05.pw/
root@JARKOM:/var/www/semeruc05.pw# ls
LICENSE      css          img          js           package.json vendor
README.md    gulpfile.js index.php    package-lock.json scss
```

```

PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4      File: /etc/apache2/sites-enabled/semeruc05.conf      Modified
<VirtualHost *:80>
    # The ServerName directive sets the request scheme, hostname and port that
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In the context of virtual hosts, the ServerName
    # specifies what hostname must appear in the request's Host: header to
    # match this virtual host. For the default virtual host (this file) this
    # value is not decisive as it is used as a last resort host regardless.
    # However, you must set it for any further virtual host explicitly.
    #ServerName www.example.com

    ServerName semeruc05.pw
    ServerAlias www.semeruc05.pw
    DocumentRoot /var/www/semeruc05.pw

    #
    # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
    # error, crit, alert, emerg.
    # It is also possible to configure the loglevel for particular
    # modules, e.g.
    #LogLevel info ssl:warn

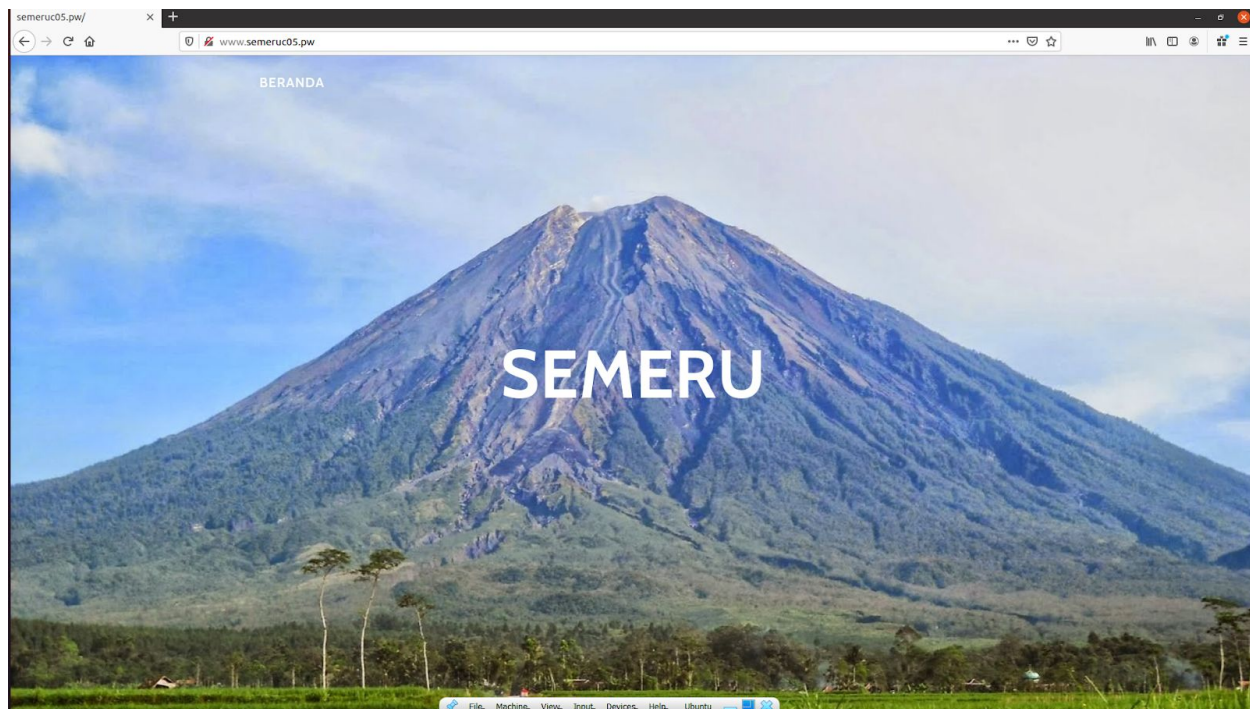
    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined

    # For most configuration files from conf-available/, which are
    # enabled or disabled at a global level, it is possible to
    # include a line for only one particular virtual host. For example the
    # following line enables the CGI configuration for this host only
    # after it has been globally disabled with "a2disconf".
    #Include conf-available/serve-cgi-bin.conf
</VirtualHost>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet

```

Hasil:



9. Diaktifkan mod rewrite agar url alamat

<http://semeruyyy.pw/index.php/home> menjadi

<http://semeruyyy.pw/home>

```

PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/apache2/sites-enabled/semeruc05.conf
<VirtualHost *:80>
    # The ServerName directive sets the request scheme, hostname and port that
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In the context of virtual hosts, the ServerName
    # specifies what hostname must appear in the request's Host: header to
    # match this virtual host. For the default virtual host (this file) this
    # value is not decisive as it is used as a last resort host regardless.
    # However, you must set it for any further virtual host explicitly.
    #ServerName www.example.com

    ServerName semeruc05.pw
    ServerAlias www.semeruc05.pw
    DocumentRoot /var/www/semeruc05.pw

    <Directory /var/www/semeruc05.pw>
        Options +FollowSymLinks -Multiviews
        AllowOverride All
    </Directory>

    # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
    # error, crit, alert, emerg.
    # It is also possible to configure the loglevel for particular
    # modules, e.g.
    #LogLevel info ssl:warn

    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined

    # For most configuration files from conf-available/, which are
    # enabled or disabled at a global level, it is possible to
    # include a line for only one particular virtual host. For example the
    # following line enables the CGI configuration for this host only
    # after it has been globally disabled with "a2disconf".
    #Include conf-available/serve-cgi-bin.conf
</VirtualHost>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet

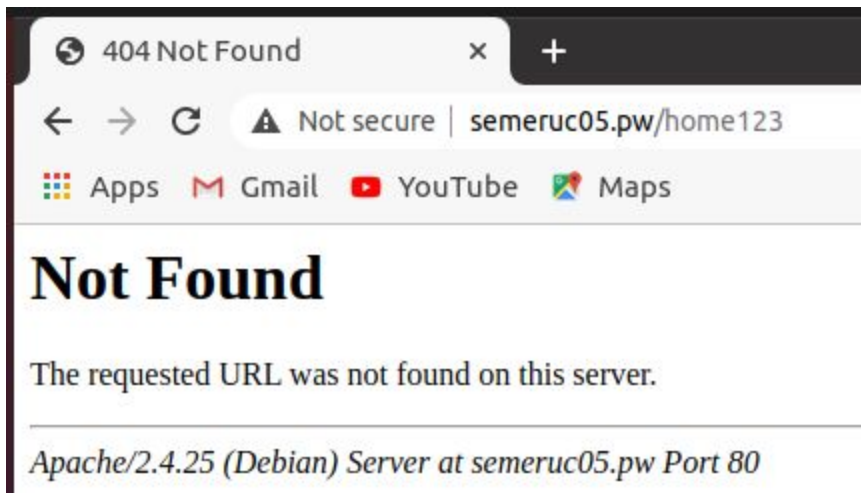
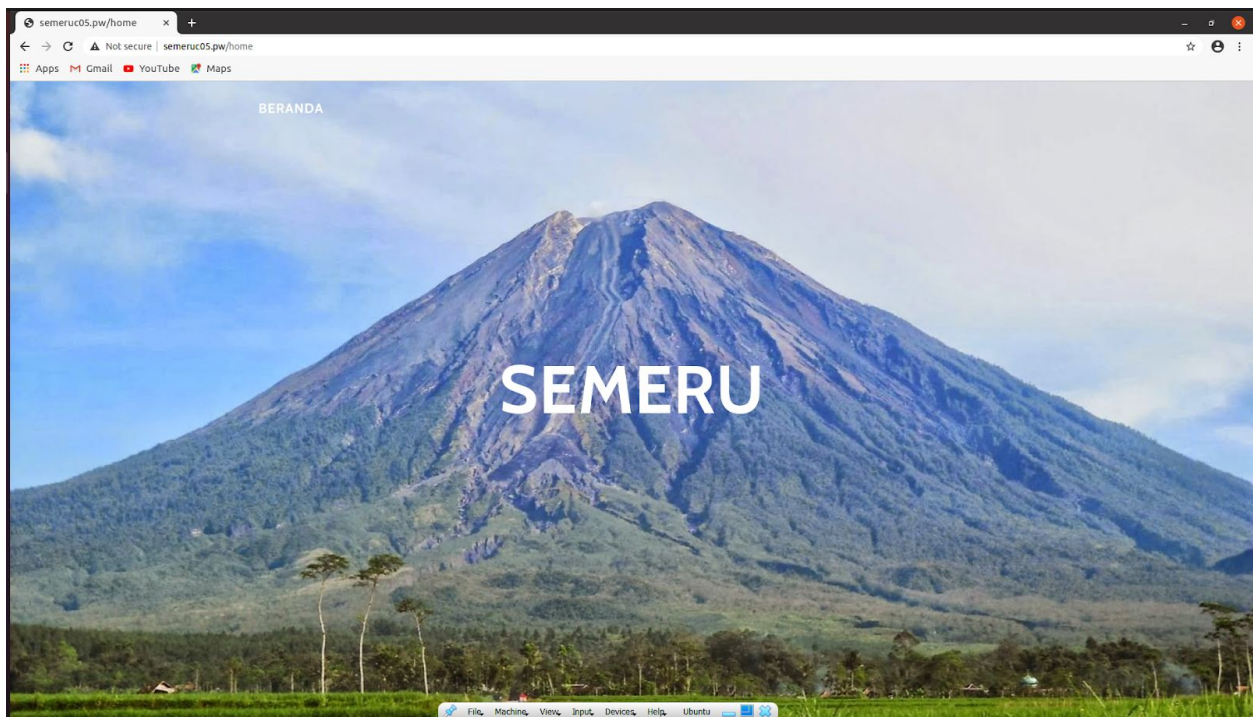
```

```

PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4 File: /var/www/semeruc05.pw/.htaccess
RewriteEngine On
RewriteCond %{REQUEST_FILENAME} !-f
RewriteCond %{REQUEST_FILENAME} !-d
RewriteRule ^home$ /index.php/home [L]

```

Hasil:



10. Web <http://penanjakan.semeruyyy.pw> akan digunakan untuk menyimpan assets file yang memiliki DocumentRoot pada </var/www/penanjakan.semeruyyy.pw>

Memiliki struktur folder sebagai berikut:

`/var/www/penanjakan.semeruyyy.pw`

`/public/javascripts`

/public/css

/public/images

/errors

Jawaban:



```
root@JARKOM:/var/www/semeruc05.pw# cd ../
root@JARKOM:/var/www# cd penanjakan.semeruc05.pw/
root@JARKOM:/var/www/penanjakan.semeruc05.pw# ls
errors  public
root@JARKOM:/var/www/penanjakan.semeruc05.pw#
```



```

PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/apache2/sites-enabled/penanjakan.semeruc05.conf Modified

<VirtualHost *:80>
    # The ServerName directive sets the request scheme, hostname and port that
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In the context of virtual hosts, the ServerName
    # specifies what hostname must appear in the request's Host: header to
    # match this virtual host. For the default virtual host (this file) this
    # value is not decisive as it is used as a last resort host regardless.
    # However, you must set it for any further virtual host explicitly.
    #ServerName www.example.com

    ServerName penanjakan.semeruc05.pw
    ServerAdmin webmaster@localhost
    DocumentRoot /var/www/penanjakan.semeruc05.pw

    <Directory /var/www/penanjakan.semeruc05.pw>
        Options +FollowSymLinks -Multiviews
        AllowOverride All
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public>
        Options +Indexes
        AllowOverride All
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public/javascripts>
        Options -Indexes
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public/css>
        Options -Indexes
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public/images>
        Options +Indexes
    </Directory>

    # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
    # error, crit, alert, emerg.
    # It is also possible to configure the loglevel for particular
    # modules, e.g.
    #LogLevel info ssl:warn

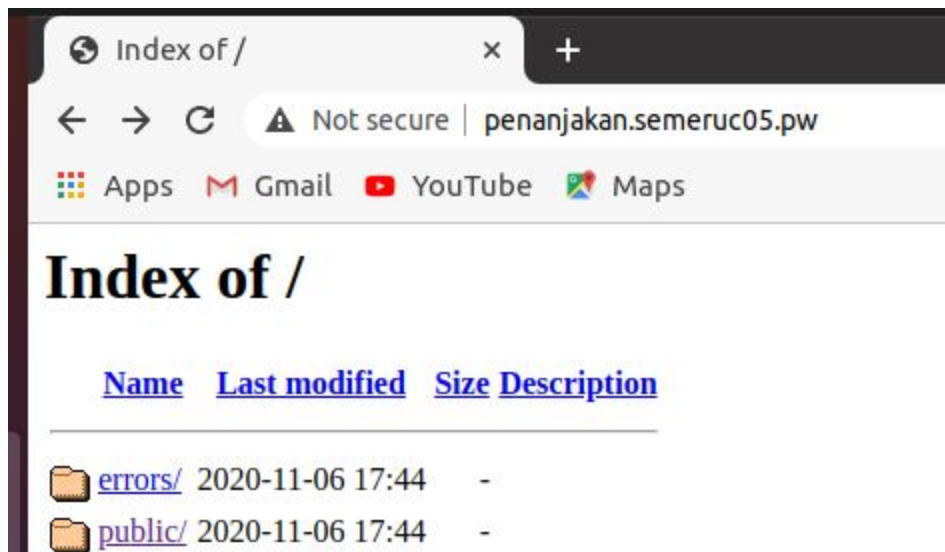
    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined

    # For most configuration files from conf-available/, which are
    # enabled or disabled at a global level, it is possible to
    # include a line for only one particular virtual host. For example the
    # following line enables the CGI configuration for this host only
    # after it has been globally disabled with "a2disconf".
    #Include conf-available/serve-cgi-bin.conf
</VirtualHost>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet

```

Hasil:



A screenshot of a web browser window. The address bar shows "Index of /" and the URL "penanjakan.semeruc05.pw". The page title is "Index of /". Below the title is a table with columns: Name, Last modified, Size, and Description. The table lists two directories: "errors/" and "public/", both last modified on 2020-11-06 at 17:44.

Name	Last modified	Size	Description
errors/	2020-11-06 17:44	-	
public/	2020-11-06 17:44	-	



A screenshot of a web browser window showing the "Index of /public" directory. The address bar shows "Index of /public" and the URL "penanjakan.semeruc05.pw/public/". The page title is "Index of /public". Below the title is a table with columns: Name, Last modified, Size, and Description. The table lists a "Parent Directory" link and three subdirectories: "css/", "images/", and "javascripts/", all last modified on 2020-11-06 at 17:44, except for "images/" which was last modified on 2020-11-08 at 17:00. At the bottom of the page, it says "Apache/2.4.25 (Debian) Server at penanjakan.semeruc05.pw Port 80".

Name	Last modified	Size	Description
Parent Directory		-	
css/	2020-11-06 17:44	-	
images/	2020-11-08 17:00	-	
javascripts/	2020-11-06 17:44	-	

Apache/2.4.25 (Debian) Server at penanjakan.semeruc05.pw Port 80

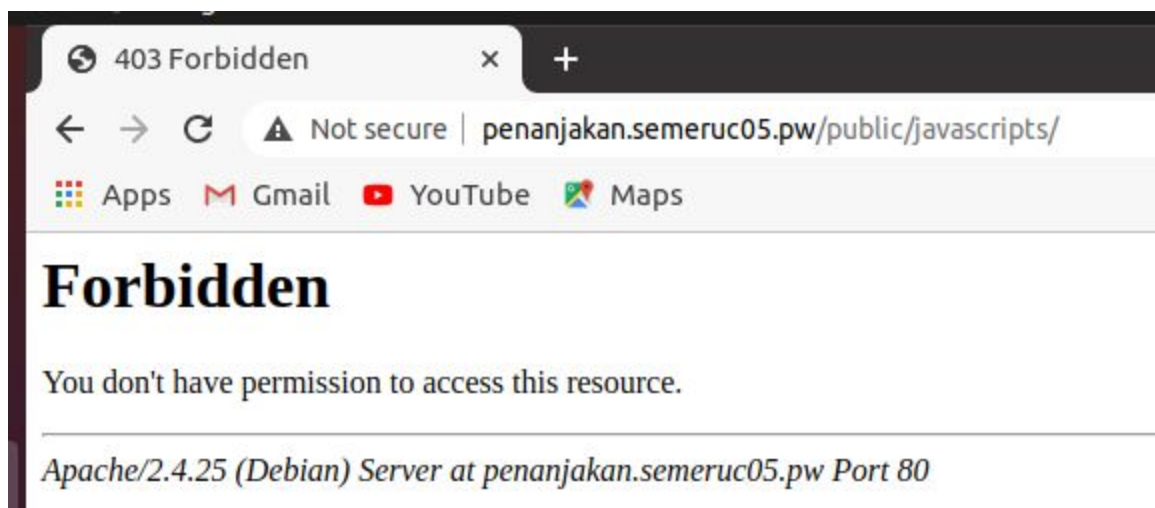
11. Pada folder /public dibolehkan directory listing namun untuk folder yang berada di dalamnya tidak dibolehkan

```
PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/apache2/sites-enabled/penanjakan.semeruc05.conf Modified
<VirtualHost *:80>
# The ServerName directive sets the request scheme, hostname and port that
# the server uses to identify itself. This is used when creating
# redirection URLs. In the context of virtual hosts, the ServerName
# specifies what hostname must appear in the request's Host: header to
# match this virtual host. For the default virtual host (this file) this
# value is not decisive as it is used as a last resort host regardless.
# However, you must set it for any further virtual host explicitly.
#ServerName www.example.com

ServerName penanjakan.semeruc05.pw
ServerAdmin webmaster@localhost
DocumentRoot /var/www/penanjakan.semeruc05.pw

<Directory /var/www/penanjakan.semeruc05.pw>
    Options +FollowSymLinks -Multiviews
    AllowOverride All
</Directory>
<Directory /var/www/penanjakan.semeruc05.pw/public>
    Options +Indexes
    AllowOverride All
</Directory>
<Directory /var/www/penanjakan.semeruc05.pw/public/javascripts>
    Options -Indexes
</Directory>
<Directory /var/www/penanjakan.semeruc05.pw/public/css>
    Options -Indexes
</Directory>
<Directory /var/www/penanjakan.semeruc05.pw/public/images>
    Options +Indexes
</Directory>
```

Hasil



12. Disediakan file 404.html pada folder /errors untuk mengganti error default 404 dari Apache

```

PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/apache2/sites-enabled/penanjakan.semeruc05.conf
<VirtualHost *:80>
    # The ServerName directive sets the request scheme, hostname and port that
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In the context of virtual hosts, the ServerName
    # specifies what hostname must appear in the request's Host: header to
    # match this virtual host. For the default virtual host (this file) this
    # value is not decisive as it is used as a last resort host regardless.
    # However, you must set it for any further virtual host explicitly.
    #ServerName www.example.com

    ServerName penanjakan.semeruc05.pw
    ServerAdmin webmaster@localhost
    DocumentRoot /var/www/penanjakan.semeruc05.pw

    <Directory /var/www/penanjakan.semeruc05.pw>
        Options +FollowSymLinks -Multiviews
        AllowOverride All
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public>
        Options +Indexes
        AllowOverride All
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public/javascripts>
        Options -Indexes
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public/css>
        Options -Indexes
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public/images>
        Options +Indexes
    </Directory>

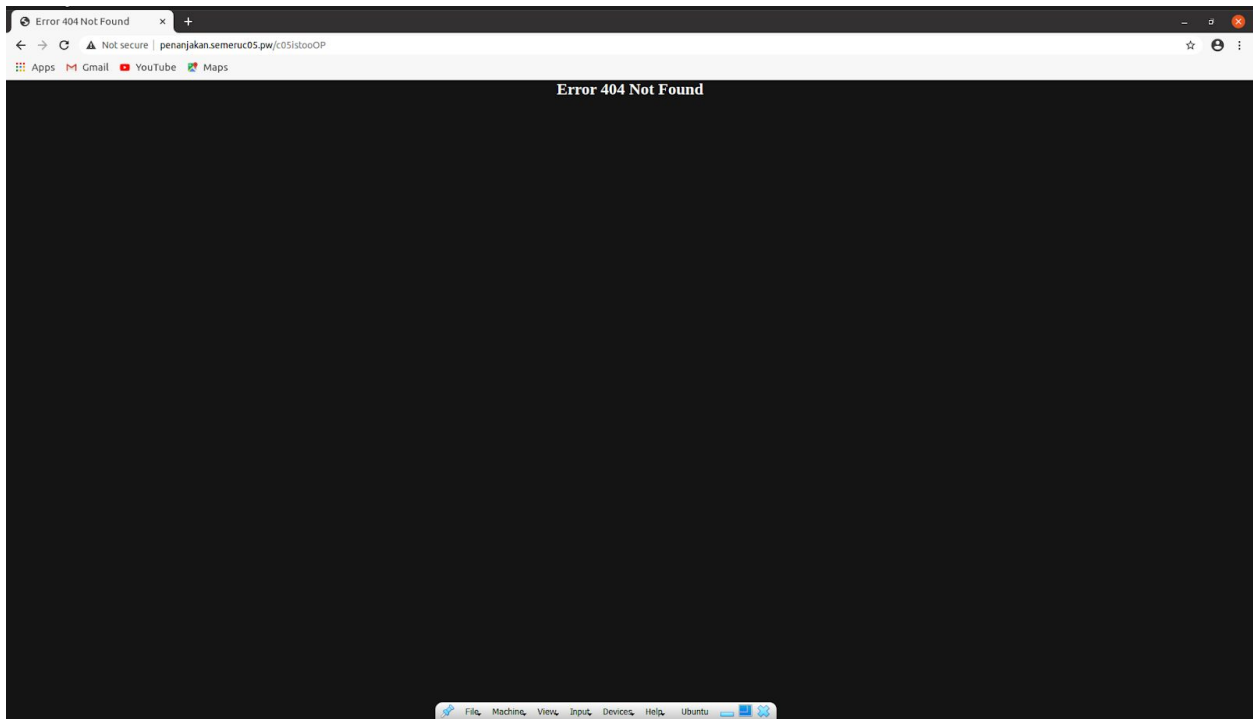
    Alias "/js" "/var/www/penanjakan.semeruc05.pw/public/javascripts"

    # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
    # error, crit, alert, emerg.
    # It is also possible to configure the loglevel for particular
    # modules, e.g.
    #LogLevel info ssl:warn

    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined

    ErrorDocument 404 /errors/404.html
  
```

Hasil:



13. Dibuatkan konfigurasi virtual host agar ketika mengakses file assets menjadi <http://penanjakan.semeruc05.pw/js>

```

PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/apache2/sites-enabled/penanjakan.semeruc05.conf

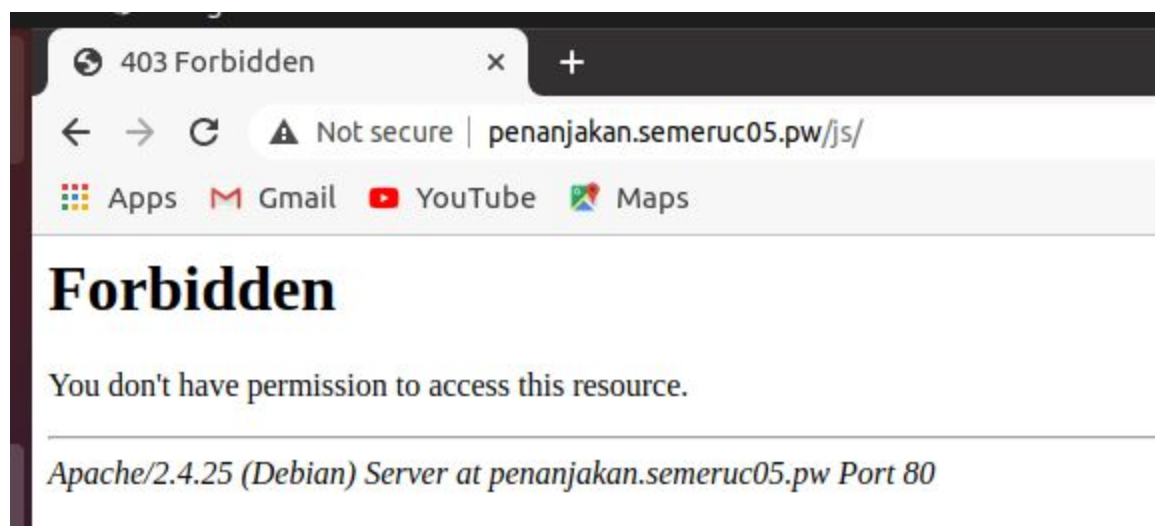
<VirtualHost *:80>
    # The ServerName directive sets the request scheme, hostname and port that
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In the context of virtual hosts, the ServerName
    # specifies what hostname must appear in the request's Host: header to
    # match this virtual host. For the default virtual host (this file) this
    # value is not decisive as it is used as a last resort host regardless.
    # However, you must set it for any further virtual host explicitly.
    #ServerName www.example.com

    ServerName penanjakan.semeruc05.pw
    ServerAdmin webmaster@localhost
    DocumentRoot /var/www/penanjakan.semeruc05.pw

    <Directory /var/www/penanjakan.semeruc05.pw>
        Options +FollowSymLinks -Multiviews
        AllowOverride All
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public>
        Options +Indexes
        AllowOverride All
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public/javascripts>
        Options -Indexes
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public/css>
        Options -Indexes
    </Directory>
    <Directory /var/www/penanjakan.semeruc05.pw/public/images>
        Options +Indexes
    </Directory>

    Alias "/js" "/var/www/penanjakan.semeruc05.pw/public/javascripts"
  
```

Hasil (menjadi forbidden dikarenakan ketentuan soal sebelumnya):



14. Web <http://naik.gunung.semeruc05.pw> sudah bisa diakses hanya dengan menggunakan port 8888

```

PROBOLINGGO (on YUDHISTIRA)
# vim: syntax=apache ts=4 sw=4 sts=4 sr noet

root@JARKOM:/var/www/penanjakan.semeruc05.pw# cd ..
root@JARKOM:/var/www# cd naik.gunung.semeruc05.pw/
root@JARKOM:/var/www/naik.gunung.semeruc05.pw# ls
200826231235-637.jpg  images.jpeg  large-ranu-kumbolo.jpg  naiksemeru.jpg  ranu-kumbolo-1.jpg
SEMERU.jpg           index.jpeg   mahameru.jpg            pendakian-gunung-semeru.jpg  ranu-kumbolo.jpg
root@JARKOM:/var/www/naik.gunung.semeruc05.pw#

GNU nano 2.7.4      File: /etc/apache2/sites-enabled/naik.gunung.semeruc05.conf
<VirtualHost *:8888>
    # The ServerName directive sets the request scheme, hostname and port that
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In the context of virtual hosts, the ServerName
    # specifies what hostname must appear in the request's Host: header to
    # match this virtual host. For the default virtual host (this file) this
    # value is not decisive as it is used as a last resort host regardless.
    # However, you must set it for any further virtual host explicitly.
    #ServerName www.example.com

    ServerName naik.gunung.semeruc05.pw
    DocumentRoot /var/www/naik.gunung.semeruc05.pw

    <Directory "/var/www/naik.gunung.semeruc05.pw">
        AuthType Basic
        AuthName "Restricted Content"
        AuthUserFile /etc/apache2/.htpasswd
        Require valid-user
    </Directory>

    # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
    # error, crit, alert, emerg.
    # It is also possible to configure the loglevel for particular
    # modules, e.g.
    #LogLevel info ssl:warn

    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined

    # For most configuration files from conf-available/, which are
    # enabled or disabled at a global level, it is possible to
    # include a line for only one particular virtual host. For example the
    # following line enables the CGI configuration for this host only
    # after it has been globally disabled with "a2disconf".
    #Include conf-available/serve-cgi-bin.conf
</VirtualHost>
# vim: syntax=apache ts=4 sw=4 sts=4 sr noet

```



```

PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/apache2/ports.conf

# If you just change the port or add more ports here, you will likely also
# have to change the VirtualHost statement in
# /etc/apache2/sites-enabled/000-default.conf

Listen 80
Listen 8888

<IfModule ssl_module>
    Listen 443
</IfModule>

<IfModule mod_gnutls.c>
    Listen 443
</IfModule>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet

```

Hasil:

Index of /

Not secure | naik.gunung.semeruc05.pw:8888

Apps Gmail YouTube Maps

Index of /

Name	Last modified	Size	Description
200826231235-637.jpg	2020-11-06 15:53	75K	
SEMERU.jpg	2020-11-06 15:52	34K	
images.jpeg	2020-11-06 15:52	6.5K	
index.jpeg	2020-11-06 12:30	6.8K	
large-ranu-kumbolo.jpg	2020-11-06 15:53	147K	
mahameru.jpg	2020-11-06 15:53	73K	
naiksemeru.jpg	2020-11-06 13:01	7.3K	
pendakian-gunung-semeru.jpg	2020-11-06 16:00	168K	
ranu-kumbolo-1.jpg	2020-11-06 15:51	81K	
ranu-kumbolo.jpg	2020-11-06 15:49	58K	

Apache/2.4.25 (Debian) Server at naik.gunung.semeruc05.pw Port 8888

15. Web <http://naik.gunung.semeruyyy.pw> diberi autentikasi password dengan username “semeru” dan password “kuynaikgunung”

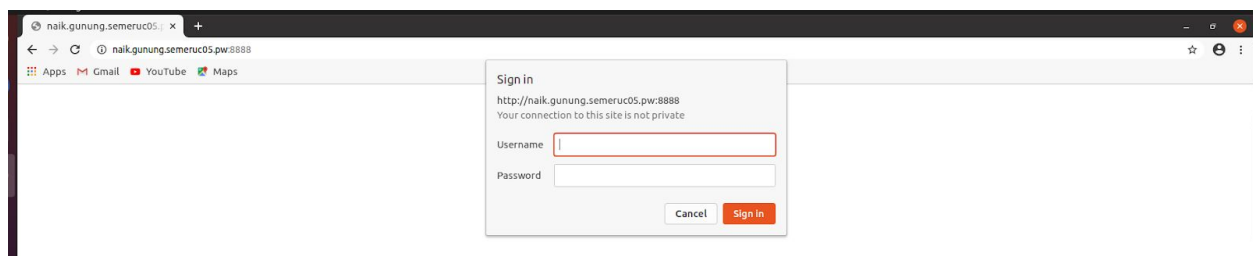
```
PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/apache2/sites-enabled/naik.gunung.semeruc05.conf
VirtualHost *:8888>
# The ServerName directive sets the request scheme, hostname and port that
# the server uses to identify itself. This is used when creating
# redirection URLs. In the context of virtual hosts, the ServerName
# specifies what hostname must appear in the request's Host: header to
# match this virtual host. For the default virtual host (this file) this
# value is not decisive as it is used as a last resort host regardless.
# However, you must set it for any further virtual host explicitly.
#ServerName www.example.com

ServerName naik.gunung.semeruc05.pw
DocumentRoot /var/www/naik.gunung.semeruc05.pw

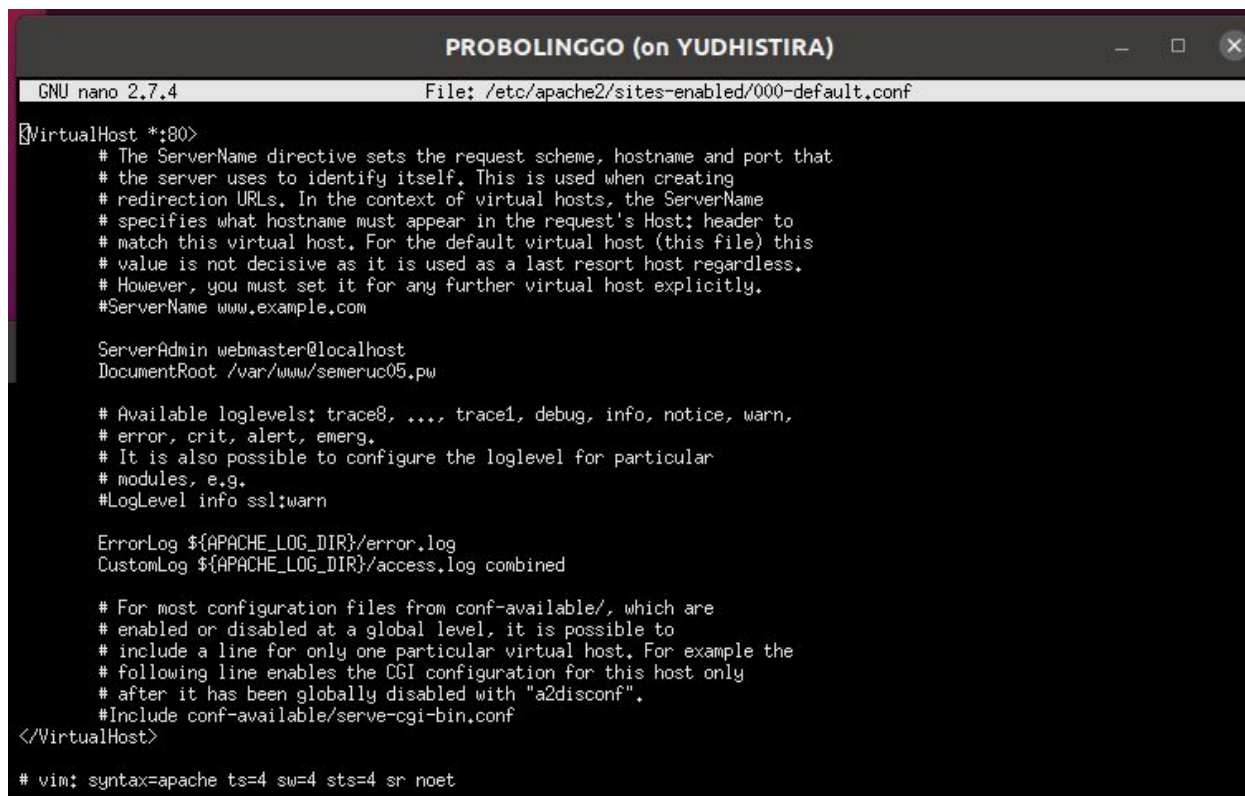
<Directory "/var/www/naik.gunung.semeruc05.pw">
AuthType Basic
AuthName "Restricted Content"
AuthUserFile /etc/apache2/.htpasswd
Require valid-user
```

```
root@JARKOM:/var/www/naik.gunung.semeruc05.pw# cat /etc/apache2/.htpasswd
semeru:$apr1$T5ia7YYK$0dNr0CTV4cMblmAu2Iewv0
root@JARKOM:/var/www/naik.gunung.semeruc05.pw#
```

Hasil:



16. Setiap kali mengunjungi IP PROBOLINGGO akan dialihkan secara otomatis ke <http://semeruyyy.pw>



```

PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/apache2/sites-enabled/000-default.conf
VirtualHost *:80>
# The ServerName directive sets the request scheme, hostname and port that
# the server uses to identify itself. This is used when creating
# redirection URLs. In the context of virtual hosts, the ServerName
# specifies what hostname must appear in the request's Host: header to
# match this virtual host. For the default virtual host (this file) this
# value is not decisive as it is used as a last resort host regardless.
# However, you must set it for any further virtual host explicitly.
#ServerName www.example.com

ServerAdmin webmaster@localhost
DocumentRoot /var/www/semeruc05.pw

# Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
# error, crit, alert, emerg.
# It is also possible to configure the loglevel for particular
# modules, e.g.
#LogLevel info ssl:warn

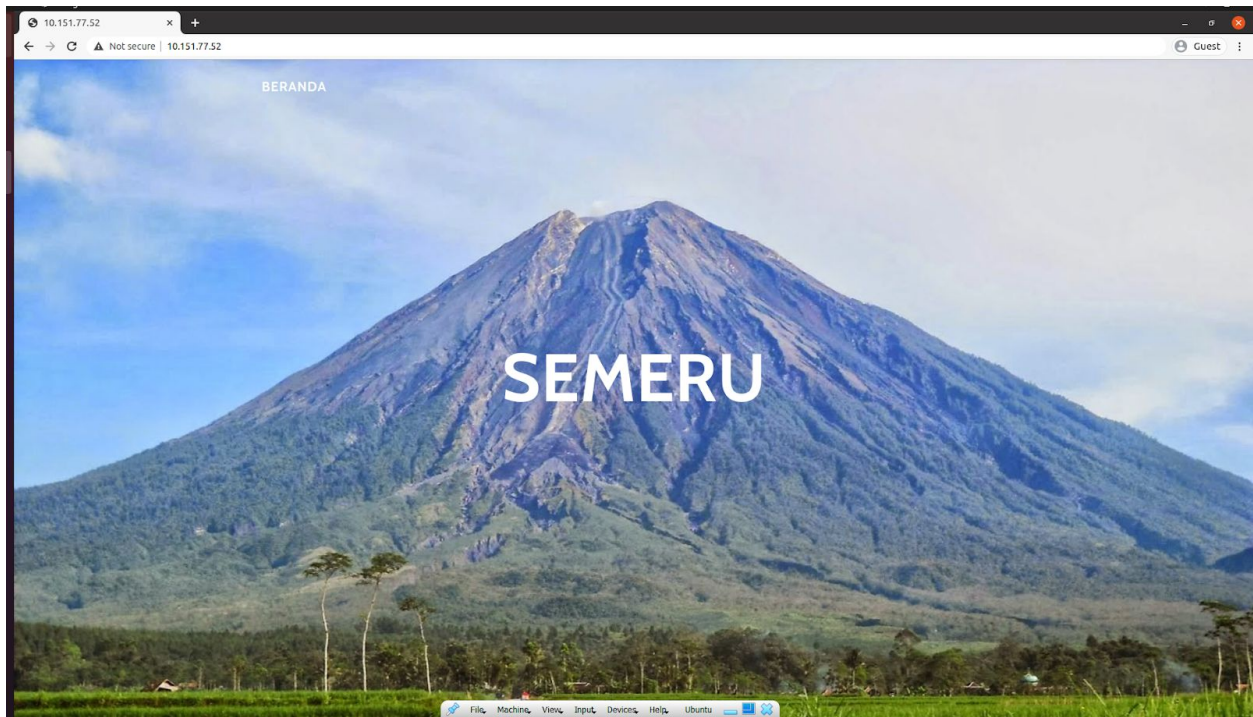
ErrorLog ${APACHE_LOG_DIR}/error.log
CustomLog ${APACHE_LOG_DIR}/access.log combined

# For most configuration files from conf-available/, which are
# enabled or disabled at a global level, it is possible to
# include a line for only one particular virtual host. For example the
# following line enables the CGI configuration for this host only
# after it has been globally disabled with "a2disconf".
#Include conf-available/serve-cgi-bin.conf
</VirtualHost>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet

```

Hasil:



17. Pengunjung

/var/www/penanjakan.semeruyyy.pw/public/images sangat banyak. Semua request gambar yang memiliki substring “semeru” akan diarahkan menuju semeru.jpg



The image shows two terminal windows from a system named 'PROBOLINGGO (on YUDHISTIRA)'. The top window shows the configuration of a .htaccess file in nano 2.7.4. The bottom window shows the configuration of an Apache VirtualHost in /etc/apache2/sites-enabled/penanjakan.semeruc05.conf.

```

PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4 File: .htaccess
RewriteEngine On
RewriteCond %{REQUEST_FILENAME} "!semeru.jpg"
RewriteRule ^public/images/.*semeru.*\.jpg$ public/images/semeru.jpg [L]

PROBOLINGGO (on YUDHISTIRA)
GNU nano 2.7.4 File: /etc/apache2/sites-enabled/penanjakan.semeruc05.conf
<VirtualHost *:80>
    # The ServerName directive sets the request scheme, hostname and port that
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In the context of virtual hosts, the ServerName
    # specifies what hostname must appear in the request's Host: header to
    # match this virtual host. For the default virtual host (this file) this
    # value is not decisive as it is used as a last resort host regardless.
    # However, you must set it for any further virtual host explicitly.
    #ServerName www.example.com

    ServerName penanjakan.semeruc05.pw
    ServerAdmin webmaster@localhost
    DocumentRoot /var/www/penanjakan.semeruc05.pw

    <Directory /var/www/penanjakan.semeruc05.pw>
        Options +FollowSymLinks -Multiviews
        AllowOverride All
    </Directory>
  
```

Hasil:

