Laporan Praktikum Jaringan Komputer: Konfigurasi Antarmuka Jaringan

Statis dan Dinamis serta Pengujian Konektivitas pada

Sistem Operasi Linux Ubuntu

```
Ubuntu 14.04.6 LTS ubuntu tty1

ubuntu login: lia
Password:
Last login: Sat Jan 10 07:07:52 WIB 2026 on tty1
Welcome to Ubuntu 14.04.6 LTS (GNU/Linux 4.4.0-148-generic i686)

 * Documentation:  https://help.ubuntu.com/

  System information as of Sun Jan 11 07:53:43 WIB 2026

  System load: 0.08          Memory usage: 1%   Processes:       87
  Usage of /:  9.5% of 22.27GB  Swap usage:   0%   Users logged in: 0

  Graph this data and manage this system at:
    https://landscape.canonical.com/

New release '16.04.7 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Your Hardware Enablement Stack (HWE) is supported until April 2019.
lia@ubuntu:~$
```

```
lia@ubuntu:~$ ifconfig_
```

```
Last login: Sat Jan 10 07:07:52 WIB 2026 on tty1
Welcome to Ubuntu 14.04.6 LTS (GNU/Linux 4.4.0-148-generic i686)

 * Documentation:  https://help.ubuntu.com/

  System information as of Sun Jan 11 07:53:43 WIB 2026

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New release '16.04.7 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Your Hardware Enablement Stack (HWE) is supported until April 2019.
lia@ubuntu:~$ ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:5d:40:4f
          inet addr:10.54.193.27  Bcast:10.54.193.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fe5d:404f/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:98 errors:0 dropped:0 overruns:0 frame:0
          TX packets:140 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:14580 (14.5 KB)  TX bytes:17303 (17.3 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:8 errors:0 dropped:0 overruns:0 frame:0
          TX packets:8 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:480 (480.0 B)  TX bytes:480 (480.0 B)

lia@ubuntu:~$ _
```

```
lia@ubuntu:~$ sudo su
[sudo] password for lia: _
```

```
root@ubuntu:/home/lia# ifconfig eth0 192.168.200.02
root@ubuntu:/home/lia# netmask 255.255.255.0
```

```
root@ubuntu:/home/lia# netmask 255.255.255.0
Aplikasi 'netmask' belum terpasang. Anda dapat memasangnya dengan mengetikkan:
apt-get install netmask
root@ubuntu:/home/lia# apt-get install netmask
```

```
root@ubuntu:/home/lia# ifconfig eth0 192.168.200.2 netmask 255.255.255.0
root@ubuntu:/home/lia# dhclient eth0
```

```
root@ubuntu:/home/lia# ifconfig eth0
```

```
root@ubuntu:/home/lia# ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 08:00:27:5d:40:4f
          inet addr:192.168.200.2  Bcast:192.168.200.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fe5d:404f/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:234 errors:0 dropped:0 overruns:0 frame:0
          TX packets:277 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:40451 (40.4 KB)  TX bytes:39435 (39.4 KB)

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

```
root@ubuntu:/home/lia# ping 192.168.200.2_
```

```
root@ubuntu:/home/lia# ping 192.168.200.2
PING 192.168.200.2 (192.168.200.2) 56(84) bytes of data.
64 bytes from 192.168.200.2: icmp_seq=1 ttl=64 time=0.026 ms
64 bytes from 192.168.200.2: icmp_seq=2 ttl=64 time=0.060 ms
64 bytes from 192.168.200.2: icmp_seq=3 ttl=64 time=0.059 ms
64 bytes from 192.168.200.2: icmp_seq=4 ttl=64 time=0.059 ms
64 bytes from 192.168.200.2: icmp_seq=5 ttl=64 time=0.060 ms
64 bytes from 192.168.200.2: icmp_seq=6 ttl=64 time=0.071 ms
64 bytes from 192.168.200.2: icmp_seq=7 ttl=64 time=0.060 ms
64 bytes from 192.168.200.2: icmp_seq=8 ttl=64 time=0.059 ms
64 bytes from 192.168.200.2: icmp_seq=9 ttl=64 time=0.076 ms
64 bytes from 192.168.200.2: icmp_seq=10 ttl=64 time=0.059 ms
64 bytes from 192.168.200.2: icmp_seq=11 ttl=64 time=0.059 ms
64 bytes from 192.168.200.2: icmp_seq=12 ttl=64 time=0.046 ms
64 bytes from 192.168.200.2: icmp_seq=13 ttl=64 time=0.066 ms
64 bytes from 192.168.200.2: icmp_seq=14 ttl=64 time=0.084 ms
```

```
64 bytes from 192.168.200.2: icmp_seq=22 ttl=64 time=0.032 ms
64 bytes from 192.168.200.2: icmp_seq=23 ttl=64 time=0.051 ms
64 bytes from 192.168.200.2: icmp_seq=24 ttl=64 time=0.042 ms
64 bytes from 192.168.200.2: icmp_seq=25 ttl=64 time=0.060 ms
64 bytes from 192.168.200.2: icmp_seq=26 ttl=64 time=0.059 ms
64 bytes from 192.168.200.2: icmp_seq=27 ttl=64 time=0.058 ms
64 bytes from 192.168.200.2: icmp_seq=28 ttl=64 time=0.300 ms
64 bytes from 192.168.200.2: icmp_seq=29 ttl=64 time=0.059 ms
64 bytes from 192.168.200.2: icmp_seq=30 ttl=64 time=0.057 ms
64 bytes from 192.168.200.2: icmp_seq=31 ttl=64 time=0.071 ms
64 bytes from 192.168.200.2: icmp_seq=32 ttl=64 time=0.068 ms
64 bytes from 192.168.200.2: icmp_seq=33 ttl=64 time=0.061 ms
64 bytes from 192.168.200.2: icmp_seq=34 ttl=64 time=0.051 ms
64 bytes from 192.168.200.2: icmp_seq=35 ttl=64 time=0.059 ms
64 bytes from 192.168.200.2: icmp_seq=36 ttl=64 time=0.068 ms
64 bytes from 192.168.200.2: icmp_seq=37 ttl=64 time=0.061 ms
64 bytes from 192.168.200.2: icmp_seq=38 ttl=64 time=0.071 ms
64 bytes from 192.168.200.2: icmp_seq=39 ttl=64 time=0.068 ms
64 bytes from 192.168.200.2: icmp_seq=40 ttl=64 time=0.069 ms
64 bytes from 192.168.200.2: icmp_seq=41 ttl=64 time=0.071 ms
64 bytes from 192.168.200.2: icmp_seq=42 ttl=64 time=0.061 ms
64 bytes from 192.168.200.2: icmp_seq=43 ttl=64 time=0.059 ms
64 bytes from 192.168.200.2: icmp_seq=44 ttl=64 time=0.070 ms
64 bytes from 192.168.200.2: icmp_seq=45 ttl=64 time=0.147 ms
64 bytes from 192.168.200.2: icmp_seq=46 ttl=64 time=0.069 ms
64 bytes from 192.168.200.2: icmp_seq=47 ttl=64 time=0.060 ms
64 bytes from 192.168.200.2: icmp_seq=48 ttl=64 time=0.071 ms
64 bytes from 192.168.200.2: icmp_seq=49 ttl=64 time=0.072 ms
64 bytes from 192.168.200.2: icmp_seq=50 ttl=64 time=0.059 ms
64 bytes from 192.168.200.2: icmp_seq=51 ttl=64 time=0.062 ms
64 bytes from 192.168.200.2: icmp_seq=52 ttl=64 time=0.060 ms
64 bytes from 192.168.200.2: icmp_seq=53 ttl=64 time=0.052 ms
^C
--- 192.168.200.2 ping statistics ---
53 packets transmitted, 53 received, 0% packet loss, time 52164ms
rtt min/avg/max/mdev = 0.026/0.065/0.300/0.038 ms
root@ubuntu:/home/lia# _
```

```
root@ubuntu:/home/lia# reboot_
```

```
lia@ubuntu:~$ ifconfig_
```

```
Last login: Sun Jan 11 07:53:55 WIB 2026 on tty1
Welcome to Ubuntu 14.04.6 LTS (GNU/Linux 4.4.0-148-generic i686)

 * Documentation:  https://help.ubuntu.com/

  System information as of Sun Jan 11 08:17:12 WIB 2026

  System load: 0.08                Memory usage: 1%   Processes:        87
  Usage of /:  9.5% of 22.27GB     Swap usage:   0%   Users logged in: 0

  Graph this data and manage this system at:
    https://landscape.canonical.com/

New release '16.04.7 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Your Hardware Enablement Stack (HWE) is supported until April 2019.
lia@ubuntu:~$ ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:5d:40:4f
          inet addr:10.54.193.27  Bcast:10.54.193.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fe5d:404f/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:41 errors:0 dropped:0 overruns:0 frame:0
          TX packets:90 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:4372 (4.3 KB)  TX bytes:10303 (10.3 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:4 errors:0 dropped:0 overruns:0 frame:0
          TX packets:4 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:240 (240.0 B)  TX bytes:240 (240.0 B)
```

```
lia@ubuntu:~$ nano /etc/network/interfaces
```

```
 GNU nano 2.2.6            File: /etc/network/interfaces

# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto eth0
iface eth0 inet dhcp
# This is an autoconfigured IPv6 interface
iface eth0 inet6 auto










                   [ Read 12 lines (Warning: No write permission) ]
^G Bantuan      ^O Tulis       ^R Baca File   ^Y Hlm sebelumny^K Ptng Teks   ^C Pos Kursor
^X Keluar       ^J Justifikasi ^W Di mana     ^V Hlm berikutny^U UnCut Text  ^T Mengeja
```

```
lia@ubuntu:~$ sudo nano /etc/network/interfaces
[sudo] password for lia:
```

```
GNU nano 2.2.6            File: /etc/network/interfaces

# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

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iface lo inet loopback

# The primary network interface
auto eth0
# iface eth0 inet dhcp
# This is an autoconfigured IPv6 interface
iface eth0 inet6 auto
autho eth0
iface eth0 inet static
address 192.168.200.2
netmask 255.255.255.0
_




                          [ Wrote 16 lines ]
^G Bantuan      ^O Tulis       ^R Baca File   ^Y Hlm sebelumny^K Ptng Teks    ^C Pos Kursor
^X Keluar       ^J Justifikasi ^W Di mana     ^V Hlm berikutny^U UnCut Text   ^T Mengeja
```

```
  GNU nano 2.2.6              File: /etc/network/interfaces


# This file describes the network interfaces available on your system
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# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto eth0
# iface eth0 inet dhcp
# This is an autoconfigured IPv6 interface
iface eth0 inet6 auto
autho eth0
iface eth0 inet static
address 192.168.200.2
netmask 255.255.255.0
```

```
                                    [ Wrote 16 lines ]

lia@ubuntu:~$ sudo /etc/init.d/networking restart_
```

```
                                    [ Wrote 16 lines ]

lia@ubuntu:~$ sudo /etc/init.d/networking restart
stop: Job failed while stopping
start: Job is already running: networking
lia@ubuntu:~$
```

```
lia@ubuntu:~$ sudo reboot_
```

```
Ubuntu 14.04.6 LTS ubuntu tty1

ubuntu login: lia
Password:
Last login: Sun Jan 11 08:17:24 WIB 2026 on tty1
Welcome to Ubuntu 14.04.6 LTS (GNU/Linux 4.4.0-148-generic i686)

 * Documentation:  https://help.ubuntu.com/

  System information as of Sun Jan 11 08:42:05 WIB 2026

  System load: 0.08                 Memory usage: 1%   Processes:        86
  Usage of /:  9.5% of 22.27GB      Swap usage:   0%   Users logged in: 0

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    https://landscape.canonical.com/

New release '16.04.7 LTS' available.
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Your Hardware Enablement Stack (HWE) is supported until April 2019.
lia@ubuntu:~$ ifconfig_
```

```
Last login: Sun Jan 11 08:17:24 WIB 2026 on tty1
Welcome to Ubuntu 14.04.6 LTS (GNU/Linux 4.4.0-148-generic i686)

 * Documentation:  https://help.ubuntu.com/

  System information as of Sun Jan 11 08:42:05 WIB 2026

  System load: 0.08                 Memory usage: 1%   Processes:        86
  Usage of /:  9.5% of 22.27GB      Swap usage:   0%   Users logged in: 0

  Graph this data and manage this system at:
    https://landscape.canonical.com/

New release '16.04.7 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Your Hardware Enablement Stack (HWE) is supported until April 2019.
lia@ubuntu:~$ ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:5d:40:4f
          inet addr:192.168.200.2  Bcast:192.168.200.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fe5d:404f/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:14 errors:0 dropped:0 overruns:0 frame:0
          TX packets:49 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:4470 (4.4 KB)  TX bytes:6263 (6.2 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:16 errors:0 dropped:0 overruns:0 frame:0
          TX packets:16 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:1184 (1.1 KB)  TX bytes:1184 (1.1 KB)

lia@ubuntu:~$ _
```

```
lo          Link encap:Local Loopback
            inet addr:127.0.0.1  Mask:255.0.0.0
            inet6 addr: ::1/128 Scope:Host
            UP LOOPBACK RUNNING  MTU:65536  Metric:1
            RX packets:16 errors:0 dropped:0 overruns:0 frame:0
            TX packets:16 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1
            RX bytes:1184 (1.1 KB)  TX bytes:1184 (1.1 KB)

lia@ubuntu:~$ netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address          Foreign Address         State
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags       Type      State         I-Node   Path
unix  2      [ ]         DGRAM                   9962     /var/lib/samba/private/msg.sock/562
unix  2      [ ]         DGRAM                   9956     /var/lib/samba/private/msg.sock/558
unix  2      [ ]         DGRAM                   9991     /var/lib/samba/private/msg.sock/578
unix  5      [ ]         DGRAM                   9715     /dev/log
unix  2      [ ]         DGRAM                   9948     /var/lib/samba/private/msg.sock/515
unix  3      [ ]         STREAM    CONNECTED     9621     @/com/ubuntu/upstart
unix  3      [ ]         STREAM    CONNECTED     9757     /var/run/dbus/system_bus_socket
unix  3      [ ]         STREAM    CONNECTED     10175    @/com/ubuntu/upstart
unix  2      [ ]         DGRAM                   11047
unix  3      [ ]         STREAM    CONNECTED     9598
unix  3      [ ]         STREAM    CONNECTED     9756
unix  3      [ ]         STREAM    CONNECTED     10167
unix  2      [ ]         DGRAM                   10568
unix  2      [ ]         DGRAM                   9716
unix  3      [ ]         STREAM    CONNECTED     9616
unix  3      [ ]         STREAM    CONNECTED     9617
unix  3      [ ]         STREAM    CONNECTED     9081
unix  3      [ ]         STREAM    CONNECTED     9623     /var/run/dbus/system_bus_socket
unix  3      [ ]         DGRAM                   9094
unix  3      [ ]         STREAM    CONNECTED     9622
unix  3      [ ]         DGRAM                   9095
unix  3      [ ]         STREAM    CONNECTED     9089     @/com/ubuntu/upstart
lia@ubuntu:~$ _
```

```
lia@ubuntu:~$ sudo apt-get install traceroute
[sudo] password for lia: _
```

```
lia@ubuntu:~$ sudo apt-get install traceroute
[sudo] password for lia:
Sedang membaca daftar paket... Selesai
Membangun pohon ketergantungan
Membaca informasi yang tersedia... Selesai
Paket BARU berikut akan diinstal:
  traceroute
0 dimutakhirkan, 1 baru terinstal, 0 akan dihapus dan 0 tidak akan dimutakhirkan.
```

```
lia@ubuntu:~$ sudo su
root@ubuntu:/home/lia# dhclient eth0
root@ubuntu:/home/lia# ping google.com
PING google.com (142.250.4.102) 56(84) bytes of data.
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=1 ttl=104 time=51.9 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=2 ttl=104 time=157 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=3 ttl=104 time=56.5 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=4 ttl=104 time=48.5 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=5 ttl=104 time=120 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=6 ttl=104 time=53.6 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=7 ttl=104 time=78.0 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=8 ttl=104 time=152 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=9 ttl=104 time=58.4 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=10 ttl=104 time=108 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=11 ttl=104 time=56.3 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=12 ttl=104 time=61.0 ms
_
```

```
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=90 ttl=104 time=124 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=91 ttl=104 time=68.0 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=92 ttl=104 time=80.3 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=93 ttl=104 time=61.2 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=94 ttl=104 time=72.4 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=95 ttl=104 time=180 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=96 ttl=104 time=75.4 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=97 ttl=104 time=55.0 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=98 ttl=104 time=164 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=99 ttl=104 time=55.2 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=100 ttl=104 time=122 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=101 ttl=104 time=138 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=102 ttl=104 time=52.3 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=103 ttl=104 time=216 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=104 ttl=104 time=45.1 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=105 ttl=104 time=49.4 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=107 ttl=104 time=48.6 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=108 ttl=104 time=43.4 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=109 ttl=104 time=104 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=110 ttl=104 time=44.3 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=111 ttl=104 time=60.1 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=112 ttl=104 time=140 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=113 ttl=104 time=54.7 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=114 ttl=104 time=99.8 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=115 ttl=104 time=43.1 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=116 ttl=104 time=49.4 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=118 ttl=104 time=47.7 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=119 ttl=104 time=50.8 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=120 ttl=104 time=104 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=121 ttl=104 time=58.4 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=122 ttl=104 time=88.4 ms
64 bytes from sm-in-f102.1e100.net (142.250.4.102): icmp_seq=123 ttl=104 time=146 ms
^C
--- google.com ping statistics ---
123 packets transmitted, 118 received, 4% packet loss, time 122166ms
rtt min/avg/max/mdev = 42.976/113.612/2015.056/186.349 ms, pipe 3
root@ubuntu:/home/lia# _
```

```
--- google.com ping statistics ---
123 packets transmitted, 118 received, 4% packet loss, time 122166ms
rtt min/avg/max/mdev = 42.976/113.612/2015.056/186.349 ms, pipe 3
root@ubuntu:/home/lia# sudo apt-get install traceroute_
```

```
--- google.com ping statistics ---
123 packets transmitted, 118 received, 4% packet loss, time 122166ms
rtt min/avg/max/mdev = 42.976/113.612/2015.056/186.349 ms, pipe 3
root@ubuntu:/home/lia# sudo apt-get install traceroute
Sedang membaca daftar paket... Selesai
Membangun pohon ketergantungan
Membaca informasi yang tersedia... Selesai
Paket BARU berikut akan diinstal:
  traceroute
0 dimutakhirkan, 1 baru terinstal, 0 akan dihapus dan 0 tidak akan dimutakhirkan.
Perlu mendapatkan 44,0 kB dari arsip.
Setelah operasi ini, 166 kB ruang kosong harddisk akan digunakan.
Ambil:1 http://id.archive.ubuntu.com/ubuntu/ trusty-updates/universe traceroute i386 1:2.0.20-0ubunt
u0.1 [44,0 kB]
Mengambil 44,0 kB dalam waktu 8detik (5.227 B/s)
Selecting previously unselected package traceroute.
(Sedang membaca basis data ...  98941 berkas atau direktori telah terpasang.)
Preparing to unpack .../traceroute_1%3a2.0.20-0ubuntu0.1_i386.deb ...
Unpacking traceroute (1:2.0.20-0ubuntu0.1) ...
Processing triggers for man-db (2.6.7.1-1ubuntu1) ...
Sedang menata traceroute (1:2.0.20-0ubuntu0.1) ...
update-alternatives: using /usr/bin/traceroute.db to provide /usr/bin/traceroute (traceroute) in mod
us otomatis
update-alternatives: using /usr/bin/lft.db to provide /usr/bin/lft (lft) in modus otomatis
update-alternatives: using /usr/bin/traceproto.db to provide /usr/bin/traceproto (traceproto) in mod
us otomatis
update-alternatives: using /usr/sbin/tcptraceroute.db to provide /usr/sbin/tcptraceroute (tcptracero
ute) in modus otomatis
root@ubuntu:/home/lia#
```

```
ute) in modus otomatis
root@ubuntu:/home/lia# traceroute google.com
traceroute to google.com (74.125.24.113), 30 hops max, 60 byte packets
 1  10.54.193.52 (10.54.193.52)  2.345 ms  2.686 ms  2.132 ms
 2  * * *
 3  10.83.89.65 (10.83.89.65)  107.152 ms  106.481 ms  105.340 ms
 4  10.83.89.218 (10.83.89.218)  152.574 ms  151.994 ms 10.83.89.217 (10.83.89.217)  151.478 ms
 5  10.83.45.106 (10.83.45.106)  151.660 ms  151.111 ms 114-0-63-214.resources.indosat.com (114.0.63
.214)  150.579 ms
 6  114-0-63-213.resources.indosat.com (114.0.63.213)  148.983 ms  37.685 ms  36.737 ms
 7  114-4-16-180.resources.indosat.com (114.4.16.180)  36.466 ms  35.360 ms 114-0-63-226.resources.i
ndosat.com (114.0.63.226)  34.239 ms
 8  114-4-16-183.resources.indosat.com (114.4.16.183)  33.436 ms  32.447 ms  30.853 ms
 9  114-0-78-205.resources.indosat.com (114.0.78.205)  58.401 ms  57.447 ms  56.537 ms
10  114-0-78-205.resources.indosat.com (114.0.78.205)  53.473 ms  51.574 ms  52.460 ms
11  74.125.48.68 (74.125.48.68)  46.766 ms  45.323 ms  44.448 ms
12  192.178.109.119 (192.178.109.119)  46.671 ms 108.170.236.139 (108.170.236.139)  45.877 ms 192.17
8.109.119 (192.178.109.119)  44.607 ms
13  142.251.192.10 (142.251.192.10)  42.856 ms 74.125.242.176 (74.125.242.176)  53.980 ms 142.251.19
2.8 (142.251.192.8)  53.899 ms
14  142.251.230.215 (142.251.230.215)  52.471 ms 216.239.50.192 (216.239.50.192)  51.574 ms 142.251.
230.145 (142.251.230.145)  50.756 ms
15  72.14.238.177 (72.14.238.177)  50.538 ms 142.251.230.150 (142.251.230.150)  49.722 ms 142.251.19
9.71 (142.251.199.71)  49.569 ms
16  172.253.67.217 (172.253.67.217)  47.636 ms 172.253.69.3 (172.253.69.3)  48.044 ms 209.85.252.101
 (209.85.252.101)  46.084 ms
17  * * *
18  * * *
19  * * *
20  * * *
21  * * *
22  * * *
23  * * *
24  * * *
25  * * *
26  sf-in-f113.1e100.net (74.125.24.113)  171.153 ms  170.681 ms  50.191 ms
root@ubuntu:/home/lia#
```

KESIMPULAN

Berdasarkan hasil praktikum "Konfigurasi Jaringan" yang telah dilaksanakan, dapat ditarik beberapa kesimpulan sebagai berikut:

1. Metode Konfigurasi IP: Terdapat dua cara utama untuk mengatur alamat IP di sistem Linux/Ubuntu, yaitu secara sementara melalui perintah ifconfig (runtime) dan secara permanen melalui pengeditan file konfigurasi sistem di /etc/network/interfaces.

2. Sifat Konfigurasi Sementara: Pengaturan IP menggunakan perintah langsung di terminal (contoh: ifconfig eth0 192.168.200.2) hanya tersimpan di memori RAM. Oleh karena itu, saat sistem melakukan reboot, alamat IP tersebut akan hilang dan kembali ke pengaturan awal (DHCP atau default).

3. Keberhasilan Konfigurasi Permanen: Untuk menjaga agar alamat IP tidak berubah setelah komputer dimatikan, konfigurasi harus ditulis secara manual ke dalam file /etc/network/interfaces dengan parameter static. Keberhasilan tahap ini dibuktikan dengan tetap aktifnya IP 192.168.200.2 setelah proses reboot dilakukan.

4. Pentingnya Hak Akses (Root): Seluruh proses administrasi jaringan, seperti mengubah alamat IP atau menyimpan perubahan pada file konfigurasi sistem, memerlukan hak akses root (menggunakan perintah sudo su atau sudo) agar sistem memberikan izin untuk melakukan perubahan.

5. Utilitas Monitoring: Perintah ifconfig sangat efektif untuk memverifikasi status antarmuka jaringan secara real-time, sedangkan netstat memberikan gambaran mengenai koneksi aktif dan socket yang sedang berjalan di dalam sistem.

6. Konektivitas Internet: Penggunaan IP statik secara manual tanpa pengaturan Gateway dan DNS tambahan dapat menyebabkan sistem kehilangan akses internet (seperti kegagalan perintah apt-get atau traceroute ke domain luar), karena sistem tidak memiliki rute untuk menerjemahkan nama domain ke internet.