

dokumentasi tentang instalasi nginx

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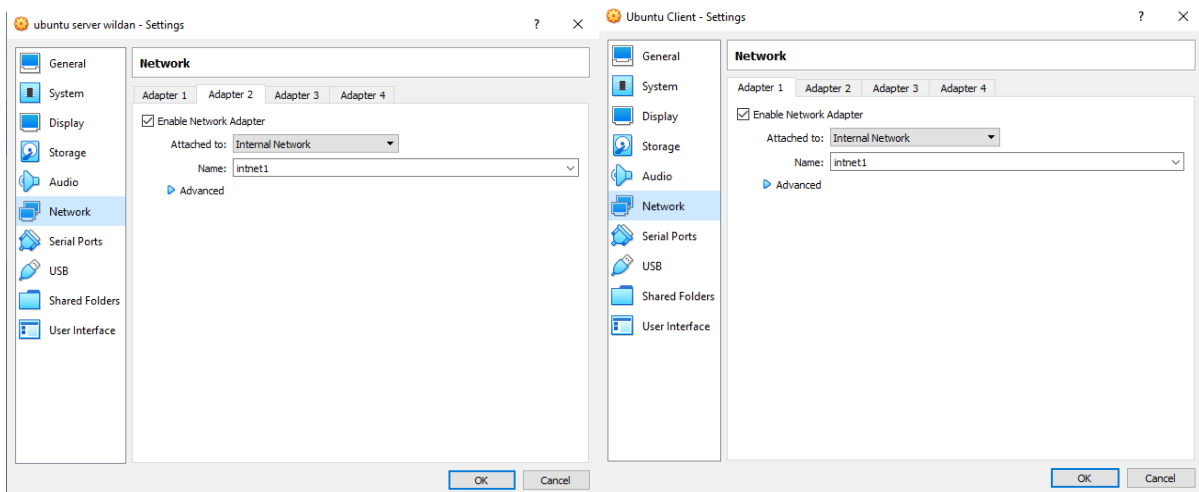
Kelas: 11 TKJ 2

NGINX adalah software web server yang open source. Ketika pertama kali dirilis, NGINX hanya berfungsi sebagai HTTP web serving saja. Namun sekarang, software tersebut juga berperan sebagai reverse proxy, HTTP load balancer, dan email proxy untuk IMAP, POP3, dan SMTP.

NGINX secara resmi diperkenalkan pada bulan Oktober 2004. Creator atau pembuat software ini, Igor Sysoev, memulai proyeknya di tahun 2002 untuk menjawab permasalahan [C10k problem](#). C10k sendiri digambarkan sebagai sebuah tantangan yang dihadapi server ketika harus mengelola sepuluh ribu koneksi di waktu bersamaan. Hingga saat ini, jumlah koneksi yang dikelola web server terus bertambah. Karena itulah, NGINX menawarkan arsitektur yang *event-driven* dan asinkron. Adanya arsitektur ini menjadikan NGINX sebagai salah satu server yang kecepatan dan skalabilitasnya dapat diandalkan.

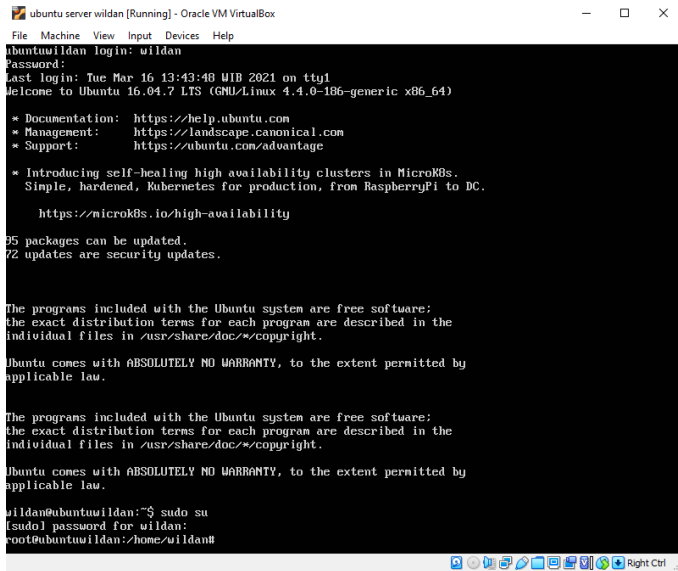
Karena kecepatan dan kemampuannya dalam menangani jumlah koneksi yang banyak, layanan NGINX kerap digunakan oleh website dengan trafik yang tinggi. Beberapa contoh dari website tersebut adalah Google, Netflix, Adobe, Cloudflare, WordPress.com, dan masih banyak lagi.

1. Setting network Ubuntu server dan Ubuntu client di virtual box seperti pada gambar berikut. (Virtualbox>VirtualMachine>Setting>Network)



2. Buka Ubuntu server-nya dan login.
3. Masuk ke root dengan cara ketikkan perintah.

"sudo su" dan masukkan password



```
ubuntu server wildan [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
ubuntu@wildan login: wildan
Password:
Last login: Tue Mar 16 13:43:48 WIB 2021 on tty1
Welcome to Ubuntu 16.04.7 LTS (GNU/Linux 4.4.0-186-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

 * Introducing self-healing high availability clusters in MicroK8s.
   Simple, hardened, Kubernetes for production, from RaspberryPi to DC.
   https://microk8s.io/high-availability

95 packages can be updated.
72 updates are security updates.

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

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

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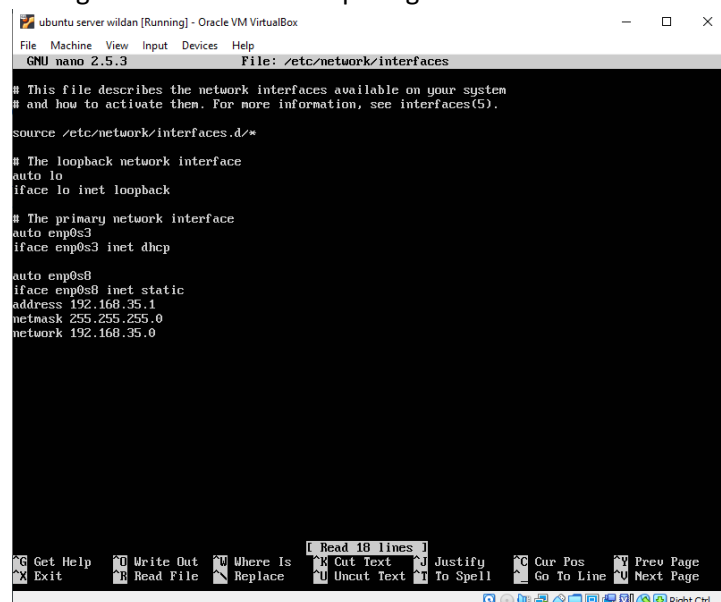
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

wildan@ubuntu@wildan:~$ sudo su
[sudo] password for wildan:
root@ubuntu@wildan:~#
```

4. Masuk ke network interface dengan cara ketikkan perintah.

Sudo nano /etc/network/interfaces

5. Setting network interface seperti gambar berikut.



```
GNU nano 2.5.3 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).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto enp0s3
iface enp0s3 inet dhcp

auto enp0s8
iface enp0s8 inet static
address 192.168.35.1
netmask 255.255.255.0
network 192.168.35.0
```

6. Ketik-kkan perintah untuk melihat status network interface.

Service networking restart

Service networking status

```
ubuntu server wildan [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

root@ubuntuwildan:/home/wildan# systemctl restart network
Failed to restart network.service: Unit network.service not found.
root@ubuntuwildan:/home/wildan# service networking restart

*[[[A*[[B*[[A
root@ubuntuwildan:/home/wildan#
root@ubuntuwildan:/home/wildan# service networking restart
root@ubuntuwildan:/home/wildan# service networking status
* networking.service - Raise network interfaces
  Loaded: loaded (/lib/systemd/system/networking.service; enabled; vendor preset: enabled)
  Drop-In: /run/systemd/generator/networking.service.d
           450-insrcrv.conf-$networkd.conf
  Active: active (exited) since Tue 2021-03-16 13:49:18 WIB; 1min 3s ago
  Docs: man:interfaces(5)
  Process: 1685 ExecStop=/sbin/ifdown -a --read-environment --exclude=lo (code=exited, status=0/SUCCESS)
  Process: 1769 ExecStart=/sbin/ifup -a --read-environment (code=exited, status=0/SUCCESS)
  Process: 1764 ExecStartPre=/bin/sh -c [ "$CONFIGURE_INTERFACES" != "no" ] && [ -n "$(ifquery --read
Main PID: 1769 (code=exited, status=0/SUCCESS)
Tasks: 1
Memory: 892.0K
CPU: 440ms
CGroup: /system.slice/networking.service
        └─1618 /sbin/dhclient -1 -v -pf /run/dhclient.emps3.pid -lf /var/lib/dhcp/dhclient.emps3

Mar 16 13:49:17 ubuntuwildan ifup[1769]: DHCPDISCOVER on emp0s3 to 255.255.255.255 port 67 interval
Mar 16 13:49:17 ubuntuwildan dhclient[1785]: DHCPREQUEST of 172.16.10.150 on emp0s3 to 255.255.255.2
Mar 16 13:49:17 ubuntuwildan ifup[1769]: DHCPREQUEST of 172.16.10.150 on emp0s3 to 255.255.255.2
Mar 16 13:49:17 ubuntuwildan ifup[1769]: DHCPPOFFER of 172.16.10.150 from 172.16.10.1
Mar 16 13:49:17 ubuntuwildan dhclient[1785]: DHCPPOFFER of 172.16.10.150 from 172.16.10.1
Mar 16 13:49:17 ubuntuwildan dhclient[1785]: DHCPACK of 172.16.10.150 from 172.16.10.1
Mar 16 13:49:17 ubuntuwildan ifup[1769]: DHCPACK of 172.16.10.150 from 172.16.10.1
Mar 16 13:49:17 ubuntuwildan dhclient[1785]: bound to 172.16.10.150 -- renewal in 253 seconds.
Mar 16 13:49:17 ubuntuwildan ifup[1769]: bound to 172.16.10.150 -- renewal in 253 seconds.
Mar 16 13:49:19 ubuntuwildan systemd[1]: Started Raise network interfaces.
lines 1-26/26 (END)
root@ubuntuwildan:/home/wildan#
```

7. Install nginx dengan mengetikkan perintah.

Sudo apt install nginx

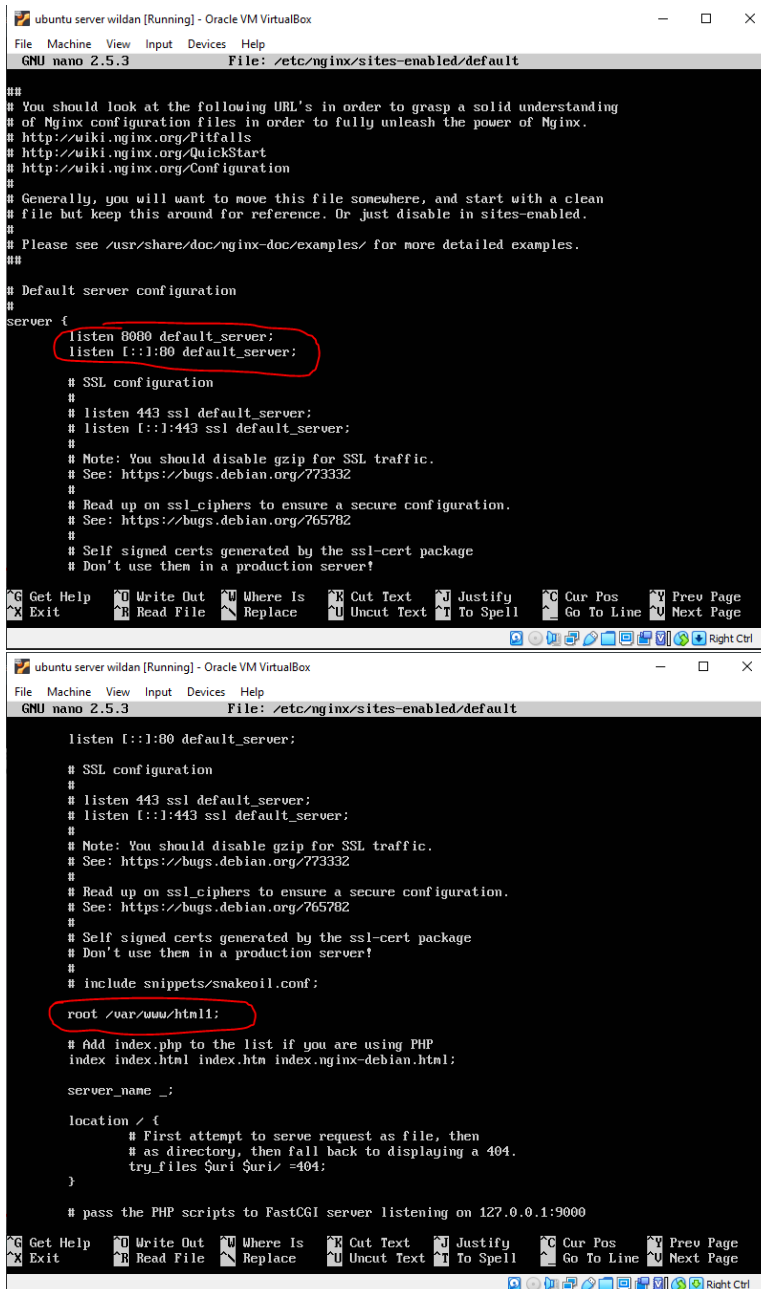
```
ubuntu server wildan [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Selecting previously unselected package libbsd0:amd64.
The Virtual Machine reports that the guest OS supports mouse pointer integration. This means that you do not need to capture the mouse pointer
Unpacking libbsd0:amd64 (2.1.1-4ubuntu0.16.04.12) ...
Selecting previously unselected package nginx-common.
Preparing to unpack .../nginx-common_1.10.3-0ubuntu0.16.04.5_all.deb ...
Unpacking nginx-common (1.10.3-0ubuntu0.16.04.5) ...
Selecting previously unselected package nginx-core.
Preparing to unpack .../nginx-core_1.10.3-0ubuntu0.16.04.5_and64.deb ...
Unpacking nginx-core (1.10.3-0ubuntu0.16.04.5) ...
Selecting previously unselected package nginx.
Preparing to unpack .../nginx_1.10.3-0ubuntu0.16.04.5_all.deb ...
Unpacking nginx (1.10.3-0ubuntu0.16.04.5) ...
Processing triggers for libc-bin (2.23-0ubuntu11.2) ...
Processing triggers for man-db (2.7.5-1) ...
Processing triggers for ureadahead (0.100.0-19.1) ...
Processing triggers for systemd (229-4ubuntu21.28) ...
Processing triggers for ufw (0.35-0ubuntu2) ...
Setting up libjpeg-turbo8:amd64 (1.4.2-0ubuntu3.4) ...
Setting up libjbig0:amd64 (2.1-3.1) ...
Setting up fonts-dejavu-core (2.35-1) ...
Setting up fontconfig-config (2.11.94-0ubuntu1.1) ...
Setting up libfontconfig1:amd64 (2.11.94-0ubuntu1.1) ...
Setting up libjpeg8:amd64 (8c-2ubuntu8) ...
Setting up libtiff5:amd64 (4.0.6-1ubuntu0.8) ...
Setting up libbpx3:amd64 (1.5.0-2ubuntu1.1) ...
Setting up libxpm4:amd64 (1:3.5.11-1ubuntu0.16.04.1) ...
Setting up libgd3:amd64 (2.1.1-4ubuntu0.16.04.12) ...
Setting up nginx-common (1.10.3-0ubuntu0.16.04.5) ...
Setting up nginx-core (1.10.3-0ubuntu0.16.04.5) ...
Setting up nginx (1.10.3-0ubuntu0.16.04.5) ...
Processing triggers for libc-bin (2.23-0ubuntu11.2) ...
Processing triggers for ureadahead (0.100.0-19.1) ...
Processing triggers for systemd (229-4ubuntu21.28) ...
Processing triggers for ufw (0.35-0ubuntu2) ...
root@ubuntuwildan:/home/wildan# sudo apt install nginx
```

8. Masuk ke settingan nginx dengan cara ketikkan perintah.

Sudo nano /etc/nginx/sites-enabled/default

9. Setting nginx seperti gambar berikut.



```
ubuntu server wildan [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
GNU nano 2.5.3 File: /etc/nginx/sites-enabled/default

##
## You should look at the following URL's in order to grasp a solid understanding
## of Nginx configuration files in order to fully unleash the power of Nginx.
## http://wiki.nginx.org/Pitfalls
## http://wiki.nginx.org/QuickStart
## http://wiki.nginx.org/Configuration
##
## Generally, you will want to move this file somewhere, and start with a clean
## file but keep this around for reference. Or just disable in sites-enabled.
##
## Please see /usr/share/doc/nginx-doc/examples/ for more detailed examples.
##

# Default server configuration
#
server {
    listen 8080 default_server;
    listen *:80 default_server;

    # SSL configuration
    #
    # listen 443 ssl default_server;
    # listen *:443 ssl default_server;
    #
    # Note: You should disable gzip for SSL traffic.
    # See: https://bugs.debian.org/773332
    #
    # Read up on ssl_ciphers to ensure a secure configuration.
    # See: https://bugs.debian.org/765782
    #
    # Self signed certs generated by the ssl-cert package
    # Don't use them in a production server!
    #

    # Add index.php to the list if you are using PHP
    index index.html index.htm index.nginx-debian.html;

    server_name _;

    location / {
        # First attempt to serve request as file, then
        # as directory, then fall back to displaying a 404.
        try_files $uri $uri/ =404;
    }

    # pass the PHP scripts to FastCGI server listening on 127.0.0.1:9000
}
```

10. Ketik-kn perintah untuk melihat status nginx dan membuat web baru.

```
Service nginx restart
Service nginx status
mkdir /var/www/html1
cp /var/www/html/index.nginx-debian.html /var/www/html1
```

```
ubuntu server wildan [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

# Add index.php to the list if you are using PHP
index index.html index.htm index.nginx-debian.html;

server_name _;

location / {
    # First attempt to serve request as file, then
    # as directory, then fall back to displaying a 404.
    try_files $uri $uri/ =404;
}

# pass the PHP scripts to FastCGI server listening on 127.0.0.1:9000

root@ubuntuwildan:/home/wildan# service nginx restart
root@ubuntuwildan:/home/wildan# service nginx status
* nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2021-03-19 07:35:53 WIB; 4s ago
     Process: 1723 ExecStop=/sbin/start-stop-daemon --quiet --stop --retry QUIT/5 --pidfile /run/nginx.
     Process: 1733 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SU
     Process: 1729 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, st
   Main PID: 1738 (nginx)
     Tasks: 2
    Memory: 1.7M
       CPU: 23ms
    CGroup: /system.slice/nginx.service
            └─1738 nginx: master process /usr/sbin/nginx -g daemon on; master_process on
              └─1739 nginx: worker process

Mar 19 07:35:53 ubuntuwildan systemd[1]: Starting A high performance web server and a reverse proxy
Mar 19 07:35:53 ubuntuwildan systemd[1]: nginx.service: Failed to parse PID from file /run/nginx.pid
Mar 19 07:35:53 ubuntuwildan systemd[1]: Started A high performance web server and a reverse proxy s
lines 1-17/17 (END)
root@ubuntuwildan:/home/wildan# mkdir /var/www/html1
root@ubuntuwildan:/home/wildan# cp /var/www/html/index.nginx-debian.html /var/www/html1
root@ubuntuwildan:/home/wildan#
```

11. Masuk ke settingan html degan cara mengetikkan perintah.

```
Sudo nano /var/www/html1/index.nginx-debian.html
```

12. Setting html seperti gambar berikut.

```
ubuntu server wildan [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
GNU nano 2.5.3 File: /var/www/html1/index.nginx-debian.html

<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
    body {
        width: 35em;
        margin: 0 auto;
        font-family: Tahoma, Verdana, Arial, sans-serif;
    }
</style>
</head>
<body>
<h1>hello world!</h1>
<p>My name is Wildan Abdurrasyid kelas 11 TKJ 2 SMK IT Ihsanul Fikri</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
</html>

root@ubuntuwildan:/home/wildan# nano /var/www/html1/index.nginx-debian.html
```

13. Buka mozilla firefox di Ubuntu client.

