

NAMA : WENNY PRASTIWI

NIM : 18050623024

PRODI : D3 MANAJEMEN INFORMATIKA 2018

## UTS JARINGAN KOMPUTER LANJUT SEMESTER GENAP 2020

Ikuti tutorial berikut ini kemudian buat dokumentasi dengan disertai screenshoot selama melakukan praktek.

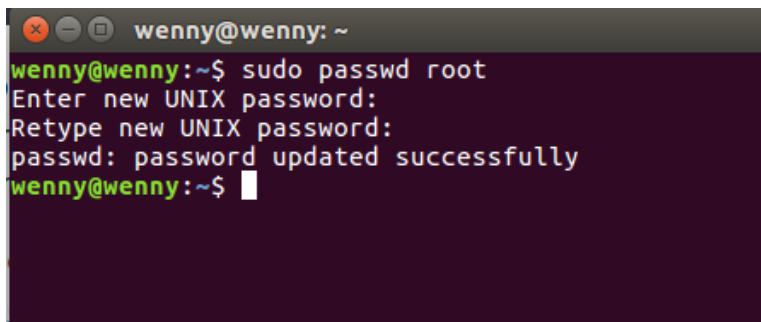
1. <https://linuxize.com/post/how-to-enable-and-disable-root-user-account-in-ubuntu/>
2. <https://linuxize.com/post/how-to-install-and-configure-samba-on-ubuntu-18-04/>
3. <https://linuxize.com/post/how-to-setup-ftp-server-with-vsftpd-on-ubuntu-18-04/>
4. <https://linuxize.com/post/how-to-install-node-js-on-ubuntu-18.04/>

hasil dokumentasi dikumpulkan melalui laman penugasan. hasil dari praktek ini sekaligus digunakan sebagai penilaian UTS.

### 1. How to Enable and Disable Root User Account in Ubuntu

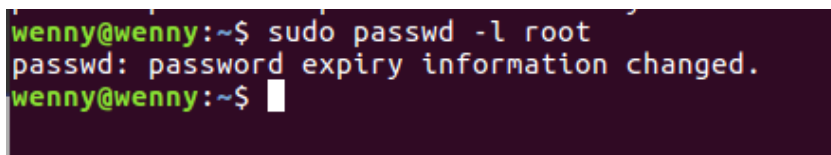
<https://linuxize.com/post/how-to-enable-and-disable-root-user-account-in-ubuntu/>

#### a. Enable Root



```
wenny@wenny: ~  
wenny@wenny:~$ sudo passwd root  
Enter new UNIX password:  
Retype new UNIX password:  
passwd: password updated successfully  
wenny@wenny:~$
```

#### b. Disable Users



```
wenny@wenny:~$ sudo passwd -l root  
passwd: password expiry information changed.  
wenny@wenny:~$
```

### 2. How to Install and Configure Samba on Ubuntu 16.04

<https://linuxize.com/post/how-to-install-and-configure-samba-on-ubuntu-18-04/>

We'll create the following Samba shares and users.

Users:

- **sadmin** - An administrative user with read and write access to all shares.
- **halloween** - A regular user with its own private file share.

Shares:

- **users** - This share will be accessible with read/write permissions by all users.
- **halloween** - This share will be accessible with read/write permissions only by users josh and admin.

#### a. Installing Samba on Ubuntu

Start by updating the apt packages index:

```
wenny@wenny: ~
wenny@wenny:~$ sudo apt update
Hit:1 https://download.docker.com/linux/ubuntu xenial InRelease
Hit:2 http://security.ubuntu.com/ubuntu xenial-security InRelease
Hit:3 http://id.archive.ubuntu.com/ubuntu xenial InRelease
Hit:4 http://ppa.launchpad.net/certbot/certbot/ubuntu xenial InRelease
Hit:5 http://id.archive.ubuntu.com/ubuntu xenial-updates InRelease
Hit:6 https://apt.kubernetes.io kubernetes-xenial InRelease
Hit:7 http://id.archive.ubuntu.com/ubuntu xenial-backports InRelease
Hit:8 http://ppa.launchpad.net/ondrej/php/ubuntu xenial InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
72 packages can be upgraded. Run 'apt list --upgradable' to see them.
wenny@wenny:~$
```

Install the Samba package with the following command:

```
wenny@wenny: ~
wenny@wenny:~$ sudo apt install samba
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  attr python-crypto python-dnspython python-ldb python-samba python-tdb
  samba-common samba-common-bin samba-dsdb-modules samba-vfs-modules tdb-tools
Suggested packages:
  python-crypto-doc python-crypto-doc bind9 bind9utils ctdb ldb-tools ntp
  smbldap-tools winbind heimdal-clients
The following NEW packages will be installed:
  attr python-crypto python-dnspython python-ldb python-samba python-tdb samba
  samba-common samba-common-bin samba-dsdb-modules samba-vfs-modules tdb-tools
0 upgraded, 12 newly installed, 0 to remove and 72 not upgraded.
Need to get 3.442 kB of archives.
After this operation, 25,8 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://id.archive.ubuntu.com/ubuntu xenial-updates/main amd64 python-crypto amd64 2.6.1-6ubuntu0.16.04.3 [246 kB]
Get:2 http://ppa.launchpad.net/certbot/certbot/ubuntu xenial/main amd64 python-dnspython all 1.15.0-1+certbot-xenial+1 [85,9 kB]
Get:3 http://id.archive.ubuntu.com/ubuntu xenial-updates/main amd64 python-ldb amd64 2:1.1.24-1ubuntu3.1 [29,2 kB]
Get:4 http://id.archive.ubuntu.com/ubuntu xenial/main amd64 python-tdb amd64 1.3.8-2 [11,1 kB]
Get:5 http://id.archive.ubuntu.com/ubuntu xenial-updates/main amd64 python-samba amd64 2:4.3.11+dfsg-0ubuntu0.16.04.25 [1.058 kB]
Get:6 http://id.archive.ubuntu.com/ubuntu xenial-updates/main amd64 samba-common all 2:4.3.11+dfsg-0ubuntu0.16.04.25 [83,9 kB]
Get:7 http://id.archive.ubuntu.com/ubuntu xenial-updates/main amd64 samba-common-bin amd64 2:4.3.11+dfsg-0ubuntu0.16.04.25 [507 kB]
Get:8 http://id.archive.ubuntu.com/ubuntu xenial/main amd64 tdb-tools amd64 1.3.8-2 [21,0 kB]
Get:9 http://id.archive.ubuntu.com/ubuntu xenial-updates/main amd64 samba amd64 2:4.3.11+dfsg-0ubuntu0.16.04.25 [902 kB]
Get:10 http://id.archive.ubuntu.com/ubuntu xenial/main amd64 attr amd64 1:2.4.47-2 [25,5 kB]
Get:11 http://id.archive.ubuntu.com/ubuntu xenial-updates/main amd64 samba-dsdb-modules amd64 2:4.3.11+dfsg-0ubuntu0.16.04.25 [216 kB]
Get:12 http://id.archive.ubuntu.com/ubuntu xenial-updates/main amd64 samba-vfs-modules amd64 2:4.3.11+dfsg-0ubuntu0.16.04.25 [257 kB]
Fetched 3.442 kB in 43s (78,4 kB/s)
Preconfiguring packages ...
Selecting previously unselected package python-dnspython.
(Reading database ... 221136 files and directories currently installed.)
Preparing to unpack .../python-dnspython_1.15.0-1+certbot-xenial+1_all.deb ...
Unpacking python-dnspython (1.15.0-1+certbot-xenial+1) ...
Selecting previously unselected package python-crypto.
Preparing to unpack .../python-crypto_2.6.1-6ubuntu0.16.04.3_amd64.deb ...
Unpacking python-crypto (2.6.1-6ubuntu0.16.04.3) ...
Selecting previously unselected package python-ldb.
Preparing to unpack .../python-ldb_2:1.1.24-1ubuntu3.1_amd64.deb ...
Unpacking python-ldb (2:1.1.24-1ubuntu3.1) ...
Selecting previously unselected package python-tdb.
Preparing to unpack .../python-tdb_1.3.8-2_amd64.deb ...
```

Once the installation is completed, the Samba service will start automatically. To check whether the Samba server is running, type:

```
wenny@wenny: ~  
wenny@wenny:~$ sudo systemctl status smbd  
● smbd.service - LSB: start Samba SMB/CIFS daemon (smbd)  
   Loaded: loaded (/etc/init.d/smbd; bad; vendor preset: enabled)  
   Active: active (running) since Sel 2020-04-07 09:13:49 WIB; 1min 50s ago  
     Docs: man:systemd-sysv-generator(8)  
    Tasks: 3  
  Memory: 17.0M  
     CPU: 402ms  
   CGroup: /system.slice/smbd.service  
           └─10810 /usr/sbin/smbd -D  
             └─10814 /usr/sbin/smbd -D  
             └─10995 /usr/sbin/smbd -D  
  
Apr 07 09:13:48 wenny systemd[1]: Starting LSB: start Samba SMB/CIFS daemon (smb  
Apr 07 09:13:49 wenny smbd[10774]: * Starting SMB/CIFS daemon smbd  
Apr 07 09:13:49 wenny smbd[10774]: ...done.  
Apr 07 09:13:49 wenny systemd[1]: Started LSB: start Samba SMB/CIFS daemon (smbd  
lines 1-16/16 (END)
```

## b. Configuring firewall

Assuming you are using [UFW](#) to manage your firewall, you can open the ports by enabling the 'Samba' profile:

```
wenny@wenny: ~  
wenny@wenny:~$ sudo ufw allow 'Samba'  
Rule added  
Rule added (v6)  
wenny@wenny:~$
```

## c. Configuring Global Samba Options

Before making changes to the Samba configuration file, create a backup for future reference purposes:

```
wenny@wenny:~$ sudo ufw allow 'Samba'  
Rule added  
Rule added (v6)  
wenny@wenny:~$ sudo cp /etc/samba/smb.conf{,.backup}  
wenny@wenny:~$ sudo nano /etc/samba/smb.conf  
wenny@wenny:~$
```

```
wenny@wenny: ~
GNU nano 2.5.3 File: /etc/samba/smb.conf

# This will prevent nmbd to search for NetBIOS names through DNS.
dns proxy = no

#### Networking ####

# The specific set of interfaces / networks to bind to
# This can be either the interface name or an IP address/netmask;
# interface names are normally preferred
; interfaces = 127.0.0.0/8 eth0

# Only bind to the named interfaces and/or networks; you must use the
# 'interfaces' option above to use this.
# It is recommended that you enable this feature if your Samba machine is
# not protected by a firewall or is a firewall itself. However, this
# option cannot handle dynamic or non-broadcast interfaces correctly.
; bind interfaces only = yes

#### Debugging/Accounting ####

# This tells Samba to use a separate log file for each machine
# that connects
log file = /var/log/samba/log.%m

# Cap the size of the individual log files (in KiB).
max log size = 1000

# If you want Samba to only log through syslog then set the following
# parameter to 'yes'.
# syslog only = no

# We want Samba to log a minimum amount of information to syslog. Everything
# should go to /var/log/samba/log.{smbd,nmbd} instead. If you want to log
# through syslog you should set the following parameter to something higher.
syslog = 0

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos ^Y Prev Page ^L First Line ^I-W WhereIs Next
^X Exit ^R Read File ^A Replace ^U Uncut Text ^T To Spell ^_ Go To Line ^V Next Page ^H Last Line ^I-~ To Bracket
```

```
wenny@wenny: ~
GNU nano 2.5.3 File: /etc/samba/smb.conf

##### Authentication #####

# Server role. Defines in which mode Samba will operate. Possible
# values are "standalone server", "member server", "classic primary
# domain controller", "classic backup domain controller", "active
# directory domain controller".
#
# Most people will want "standalone sever" or "member server".
# Running as "active directory domain controller" will require first
# running "samba-tool domain provision" to wipe databases and create a
# new domain.
server role = standalone server

# If you are using encrypted passwords, Samba will need to know what
# password database type you are using.
passwd backend = tdbsam

obey pam restrictions = yes

# This boolean parameter controls whether Samba attempts to sync the Unix
# password with the SMB password when the encrypted SMB password in the
# passwd is changed.
unix password sync = yes

# For Unix password sync to work on a Debian GNU/Linux system, the following
# parameters must be set (thanks to Ian Kahan <kahan@informatik.tu-muenchen.de> for
# sending the correct chat script for the passwd program in Debian Sarge).
passwd program = /usr/bin/passwd %u
passwd chat = *Enter\snew\s*\spassword:* %n\n *Retype\snew\s*\spassword:* %n\n *password\supdated\ssuccessfully* .

# This boolean controls whether PAM will be used for password changes
# when requested by an SMB client instead of the program listed in
# 'passwd program'. The default is 'no'.
pam password change = yes

# This option controls how unsuccessful authentication attempts are mapped
```

Finally, restart the Samba services with:

```
wenny@wenny: ~
wenny@wenny:~$ sudo systemctl restart smbd
wenny@wenny:~$ sudo systemctl restart nmbd
wenny@wenny:~$
```

#### d. Creating Samba Users and Directory Structure

```
wenny@wenny: ~
wenny@wenny:~$ sudo mkdir /samba
wenny@wenny:~$ sudo chgrp sambashare /samba
wenny@wenny:~$
```

#### e. Creating Samba Users

```
wenny@wenny:~$ sudo mkdir /halloween/wenny
wenny@wenny:~$ sudo chown wenny:sambashare /halloween/wenny
wenny@wenny:~$ sudo chmod 2770 /halloween/wenny
wenny@wenny:~$ sudo smbpasswd -e wenny
Failed to find user wenny in passwd backend.
wenny@wenny:~$ sudo smbpasswd -a wenny
New SMB password:
Retype new SMB password:
Added user wenny.
wenny@wenny:~$ sudo smbpasswd -e wenny
Enabled user wenny.
wenny@wenny:~$ sudo useradd -M -d /halloween/users -s /usr/sbin/nologin -G sambashare sadmin
useradd: failure while writing changes to /etc/passwd
wenny@wenny:~$ sudo smbpasswd -a sadmin
New SMB password:
Retype new SMB password:
Failed to add entry for user sadmin.
wenny@wenny:~$
```

#### f. Configuring Samba Shares

```
wenny@wenny: ~
GNU nano 2.5.3 File: /etc/samba/smb.conf

[users]
    path = /samba/users
    browseable = yes
    read only = no
    force create mode = 0660
    force directory mode = 2770
    valid users = @sambashare @sadmin

[halloween]
    path = /sambawenny/halloween
    browseable = no
    read only = no
    force create mode = 0660
    force directory mode = 2770
    valid users = halloween @sadmin

[ Read 15 lines ]
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

#### g. Using the smbclient client

```
wenny@wenny: ~
wenny@wenny:~$ sudo apt install smbclient
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libmemcached11 libmemcachedutil2
Use 'sudo apt autoremove' to remove them.
Suggested packages:
  cifs-utils heimdal-clients
The following NEW packages will be installed:
  smbclient
0 upgraded, 1 newly installed, 0 to remove and 72 not upgraded.
1 not fully installed or removed.
Need to get 311 kB of archives.
After this operation, 1.503 kB of additional disk space will be used.
Get:1 http://id.archive.ubuntu.com/ubuntu xenial-updates/main amd64 smbclient am
d64 2:4.3.11+dfsg-0ubuntu0.16.04.25 [311 kB]
Fetched 311 kB in 6s (47,3 kB/s)
Selecting previously unselected package smbclient.
(Reading database ... 222000 files and directories currently installed.)
Preparing to unpack .../smbclient_2%3a4.3.11+dfsg-0ubuntu0.16.04.25_amd64.deb ..
Unpacking smbclient (2:4.3.11+dfsg-0ubuntu0.16.04.25) ...
```

## h. Mounting the Samba shared

```
wenny@wenny: ~
wenny@wenny:~$ sudo apt install cifs-utils
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libmemcached11 libmemcachedutil2
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  keyutils
Suggested packages:
  winbind
The following NEW packages will be installed:
  cifs-utils keyutils
0 upgraded, 2 newly installed, 0 to remove and 72 not upgraded.
Need to get 122 kB of archives.
After this operation, 360 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://id.archive.ubuntu.com/ubuntu xenial-updates/main amd64 cifs-utils a
md64 2:6.4-1ubuntu1.1 [74,5 kB]
Get:2 http://id.archive.ubuntu.com/ubuntu xenial/main amd64 keyutils amd64 1.5.9
-8ubuntu1 [47,1 kB]
Fetched 122 kB in 1s (63,5 kB/s)
Selecting previously unselected package cifs-utils.
```

### 3. How to Setup FTP Server with VSFTPD on Ubuntu 16.04

#### Installing vsftpd on Ubuntu 16.04

```
wenny@wenny:~$ sudo apt update
Hit:1 https://download.docker.com/linux/ubuntu xenial InRelease
Get:2 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Hit:3 http://ppa.launchpad.net/certbot/certbot/ubuntu xenial InRelease
Hit:4 http://id.archive.ubuntu.com/ubuntu xenial InRelease
Hit:5 https://apt.kubernetes.io kubernetes-xenial InRelease
Get:6 http://id.archive.ubuntu.com/ubuntu xenial-updates InRelease [109 kB]
Hit:7 http://ppa.launchpad.net/ondrej/php/ubuntu xenial InRelease
Get:8 http://id.archive.ubuntu.com/ubuntu xenial-backports InRelease [107 kB]
Fetched 325 kB in 2s (121 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
72 packages can be upgraded. Run 'apt list --upgradable' to see them.
wenny@wenny:~$ sudo apt install vsftpd
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libmemcached11 libmemcachedutil2
Use 'sudo apt autoremove' to remove them.
The following packages will be REMOVED:
  proftpd-basic
The following NEW packages will be installed:
  vsftpd
0 upgraded, 1 newly installed, 1 to remove and 72 not upgraded.
Need to get 115 kB of archives.
After this operation, 4.140 kB disk space will be freed.
Do you want to continue? [Y/n] y
Get:1 http://id.archive.ubuntu.com/ubuntu xenial/main amd64 vsftpd amd64 3.0.3-3ubuntu2 [115 kB]
Fetched 115 kB in 1s (62.9 kB/s)
Preconfiguring packages ...
(Reading database ... 222037 files and directories currently installed.)
Removing proftpd-basic (1.3.5a-1ubuntu1) ...
Processing triggers for man-db (2.7.5-1) ...
Selecting previously unselected package vsftpd.
(Reading database ... 221948 files and directories currently installed.)
Preparing to unpack .../vsftpd_3.0.3-3ubuntu2_amd64.deb ...
Unpacking vsftpd (3.0.3-3ubuntu2) ...
Processing triggers for ureadahead (0.100.0-19.1) ...
ureadahead will be reprofiled on next reboot
Processing triggers for systemd (229-4ubuntu21.27) ...
Processing triggers for man-db (2.7.5-1) ...
```

## Configuring vsftpd

### 1. FTP Access

```
wenny@wenny:~$ nano /etc/vsftpd.conf
GNU nano 2.5.3 File: /etc/vsftpd.conf

#
# Run standalone? vsftpd can run either from an inetd or as a standalone
# daemon started from an initscript.
listen=NO
#
# This directive enables listening on IPv6 sockets. By default, listening
# on the IPv6 "any" address (:::) will accept connections from both IPv6
# and IPv4 clients. It is not necessary to listen on *both* IPv4 and IPv6
# sockets. If you want that (perhaps because you want to listen on specific
# addresses) then you must run two copies of vsftpd with two configuration
# files.
listen_ipv6=YES
#
# Allow anonymous FTP? (Disabled by default).
anonymous_enable=NO
#
# Uncomment this to allow local users to log in.
local_enable=YES
#
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```



## 2. Enabling uploads

```
wenny@wenny: ~  
GNU nano 2.5.3 File: /etc/vsftpd.conf  
  
# files.  
listen_ipv6=YES  
#  
# Allow anonymous FTP? (Disabled by default).  
anonymous_enable=NO  
#  
# Uncomment this to allow local users to log in.  
local_enable=YES  
#  
# Uncomment this to enable any form of FTP write command.  
write_enable=YES  
#  
# Default umask for local users is 077. You may wish to change this to 022,  
# if your users expect that (022 is used by most other ftpd's)  
local_umask=022  
#  
# Uncomment this to allow the anonymous FTP user to upload files. This only  
# has an effect if the above global write enable is activated. Also, you will  
# obviously need to create a directory writable by the FTP user.  
  
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos  
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

## 3. Chroot Jail

```
wenny@wenny: ~  
GNU nano 2.5.3 File: /etc/vsftpd.conf  
  
#  
# You may fully customise the login banner string:  
#ftpd_banner=Welcome to blah FTP service.  
#  
# You may specify a file of disallowed anonymous e-mail addresses. Apparently  
# useful for combatting certain DoS attacks.  
#deny_email_enable=YES  
# (default follows)  
#banned_email_file=/etc/vsftpd.banned_emails  
#  
# You may restrict local users to their home directories. See the FAQ for  
# the possible risks in this before using chroot_local_user or  
# chroot_list enable below.  
chroot_local_user=YES  
#  
# You may specify an explicit list of local users to chroot() to their home  
# directory. If chroot_local_user is YES, then this list becomes a list of  
# users to NOT chroot().  
# (Warning! chroot'ing can be very dangerous. If using chroot, make sure that
```



#### 4. Passive FTP Connections

```
wenny@wenny: ~  
GNU nano 2.5.3 File: /etc/vsftpd.conf Modified  
  
ssl_enable=NO  
  
#  
# Uncomment this to indicate that vsftpd use a utf8 filesystem.  
#utf8_filesystem=YES  
  
user_sub_token=$USER  
local_root=/home/$USER/ftp  
  
allow_writeable_chroot=YES  
  
pasv_min_port=30000  
pasv_max_port=31000  
|  
  
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos  
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

#### 5. Limiting User Login

```
wenny@wenny: ~  
GNU nano 2.5.3 File: /etc/vsftpd.conf Modified  
  
ssl_enable=NO  
  
#  
# Uncomment this to indicate that vsftpd use a utf8 filesystem.  
#utf8_filesystem=YES  
  
user_sub_token=$USER  
local_root=/home/$USER/ftp  
  
allow_writeable_chroot=YES  
  
pasv_min_port=30000  
pasv_max_port=31000  
  
userlist_enable=YES  
userlist_file=/etc/vsftpd.user_list  
userlist_deny=NO  
|  
  
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos  
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

## 6. Securing Transmissions with SSL/TLS

```
wenny@wenny: ~
wenny@wenny:~$ sudo openssl req -x509 -nodes -days 3650 -newkey rsa:2048 -keyout
/etc/ssl/private/vsftpd.pem -out /etc/ssl/private/vsftpd.pem
Generating a 2048 bit RSA private key
.....+++++
.....+++++
writing new private key to '/etc/ssl/private/vsftpd.pem'
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:62
State or Province Name (full name) [Some-State]:1
Locality Name (eg, city) []:1
Organization Name (eg, company) [Internet Widgits Pty Ltd]:1
Organizational Unit Name (eg, section) []:
Common Name (e.g. server FQDN or YOUR name) []:
Email Address []:
wenny@wenny:~$
```

## Opening the Firewall

If you are running an [UFW firewall](#) you'll need to allow FTP traffic.

```
wenny@wenny: ~
wenny@wenny:~$ sudo systemctl restart vsftpd
wenny@wenny:~$ sudo ufw allow 20:21/tcp
Rule added
Rule added (v6)
wenny@wenny:~$ sudo ufw allow 30000:31000/tcp
Rule added
Rule added (v6)
wenny@wenny:~$

wenny@wenny: ~
Rule added
Rule added (v6)
wenny@wenny:~$ sudo ufw allow OpenSSH
Rule added
Rule added (v6)
wenny@wenny:~$ sudo ufw disable
Firewall stopped and disabled on system startup
wenny@wenny:~$ sudo ufw enable
Firewall is active and enabled on system startup
wenny@wenny:~$ sudo ufw status
Status: active

To Action From
--
Samba ALLOW Anywhere
20:21/tcp ALLOW Anywhere
30000:31000/tcp ALLOW Anywhere
OpenSSH ALLOW Anywhere
Samba (v6) ALLOW Anywhere (v6)
20:21/tcp (v6) ALLOW Anywhere (v6)
30000:31000/tcp (v6) ALLOW Anywhere (v6)
OpenSSH (v6) ALLOW Anywhere (v6)
```

## Creating FTP User

```
wenny@wenny: ~  
wenny@wenny:~$ sudo adduser newftpuser  
Adding user `newftpuser' ...  
Adding new group `newftpuser' (1004) ...  
Adding new user `newftpuser' (1004) with group `newftpuser' ...  
Creating home directory `/home/newftpuser' ...  
Copying files from `/etc/skel' ...  
Enter new UNIX password:  
Retype new UNIX password:  
passwd: password updated successfully  
Changing the user information for newftpuser  
Enter the new value, or press ENTER for the default  
    Full Name []: wenny  
    Room Number []: 1  
    Work Phone []:  
    Home Phone []:  
    Other []:  
Is the information correct? [Y/n] y  
wenny@wenny:~$  
  
wenny@wenny: ~  
wenny@wenny:~$ echo "newftpuser" | sudo tee -a /etc/vsftpd.user_list  
newftpuser  
wenny@wenny:~$ sudo mkdir -p /home/newftpuser/ftp/upload  
wenny@wenny:~$ sudo chmod 550 /home/newftpuser/ftp  
wenny@wenny:~$ sudo chmod 750 /home/newftpuser/ftp/upload  
wenny@wenny:~$ sudo chown -R newftpuser: /home/newftpuser/ftp  
wenny@wenny:~$
```

## Disabling Shell Access

```
wenny@wenny: ~  
wenny@wenny:~$ echo -e '#!/bin/sh\nnecho "This account is limited to FTP access only."' | sudo tee -a /bin/ftponly  
#!/bin/sh  
echo "This account is limited to FTP access only."  
wenny@wenny:~$ sudo chmod a+x /bin/ftponly  
wenny@wenny:~$ echo "/bin/ftponly" | sudo tee -a /etc/shells  
/bin/ftponly  
wenny@wenny:~$ sudo usermod newftpuser -s /bin/ftponly
```

#### **4. How to Install Node.js and npm on Ubuntu 16.04**

Terminal

How to Install Node.js and npm on Ubuntu 18.04 | Linuxize - Mozilla Firefox

Jaringan Komputer Lan X How to Install Node.js a X How to Setup FTP Serve X +

https://linuxize.com/post/how-to-install-node.js-on-ub...

enabling ads.png

Install the current LTS version of Node.js, version 10.x, Carbon.

To install Node.js and npm from the NodeSource repository:

01. Enable the NodeSource repository by running the following command with root privileges:

```
$ curl -sL https://deb.nodesource.com/setup_10.x | sudo -E bash -
```

The command will add the NodeSource signing key to the repository file, install all necessary packages and refresh the package lists.

If you need to install another version, for example 12.x, use `setup_12.x`.

02. Once the NodeSource repository is enabled, install Node.js and npm:

```
$ sudo apt install nodejs
```

The nodejs package contains both the `node` and `npm` binaries.

03. Verify that the Node.js and npm were successfully installed:

```
$ node --version
```

Output

v10.16.3

```
$ npm --version
```

Output

6.9.0

Installing Node.js and npm using NVM

NVM (Node Version Manager) is a bash script used to manage multiple active Node.js versions. With NVM you can install and uninstall any specific Node.js version you want to use or test.

wenny@wenny: ~

```
wenny@wenny:~$ curl -sL https://deb.nodesource.com/setup_10.x | sudo -E bash -
## Installing the NodeSource Node.js 10.x repo...

## Populating apt-get cache...

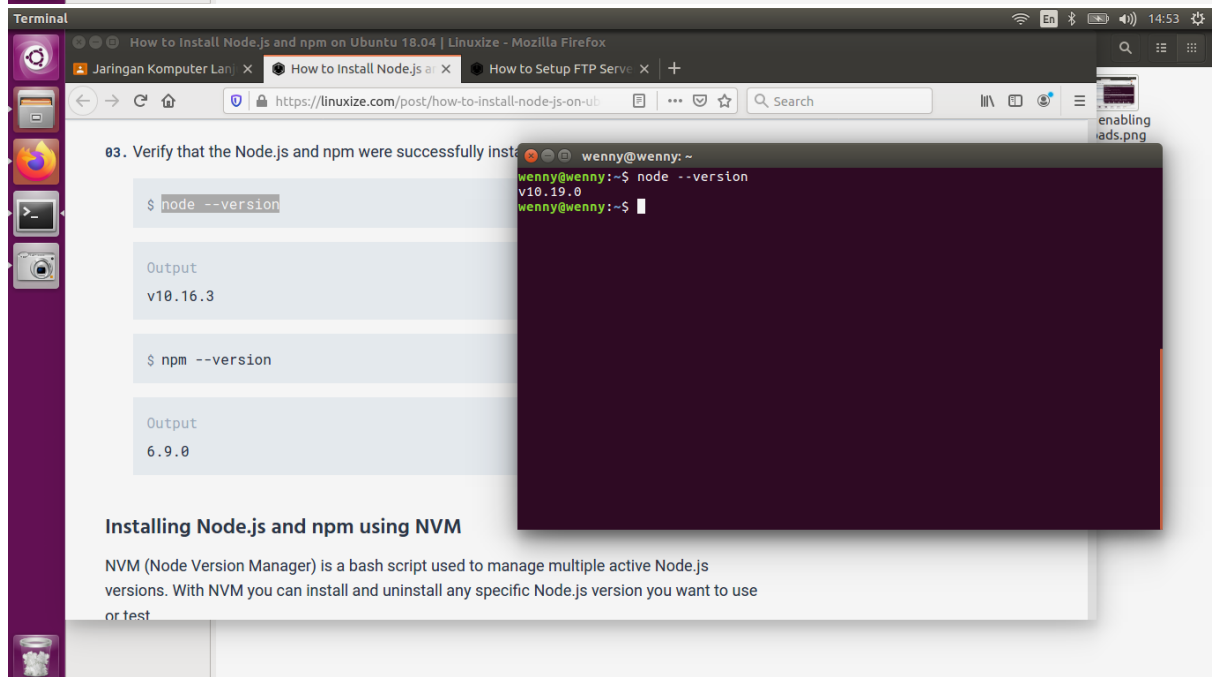
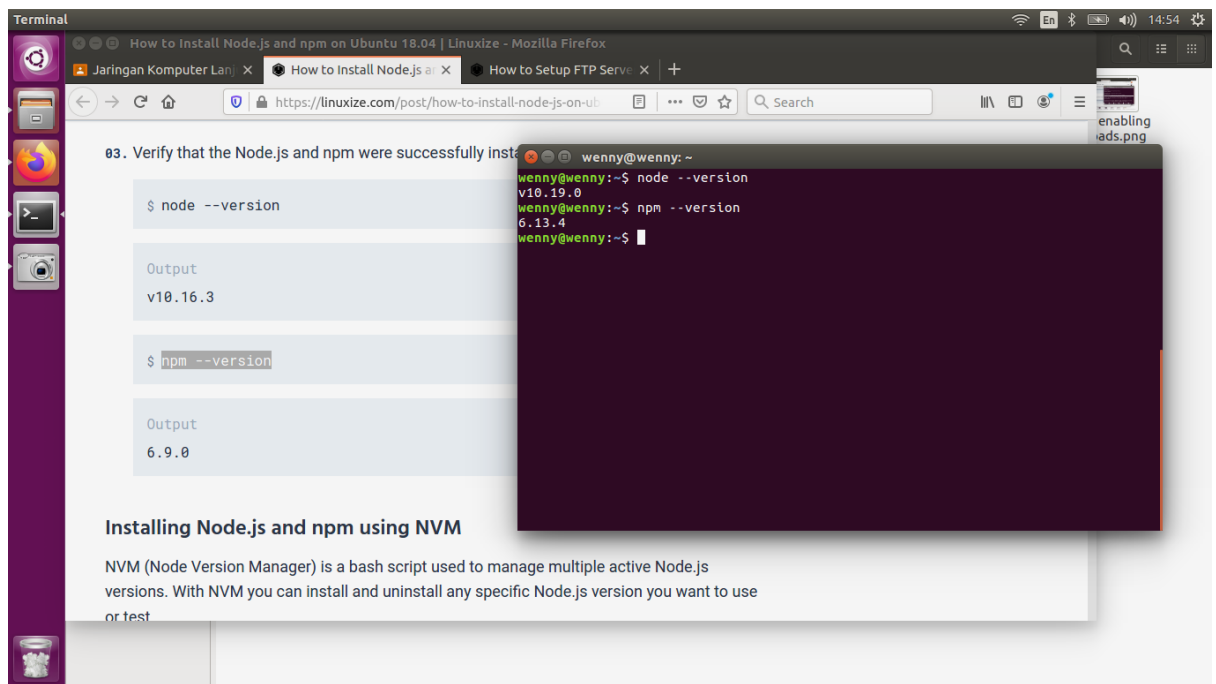
+ apt-get update
Hit:1 http://ppa.launchpad.net/certbot/certbot/ubuntu xenial InRelease
Hit:2 http://id.archive.ubuntu.com/ubuntu xenial InRelease
Get:3 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Hit:4 https://download.docker.com/linux/ubuntu xenial InRelease
Get:5 http://id.archive.ubuntu.com/ubuntu xenial-updates InRelease [109 kB]
Hit:6 http://ppa.launchpad.net/ondrej/php/ubuntu xenial InRelease
Hit:7 https://apt.kubernetes.io/kubernetes-xenial InRelease
Get:8 http://id.archive.ubuntu.com/ubuntu xenial-backports InRelease [107 kB]
Fetched 325 kB in 4s (76,2 kB/s)
Reading package lists... Done

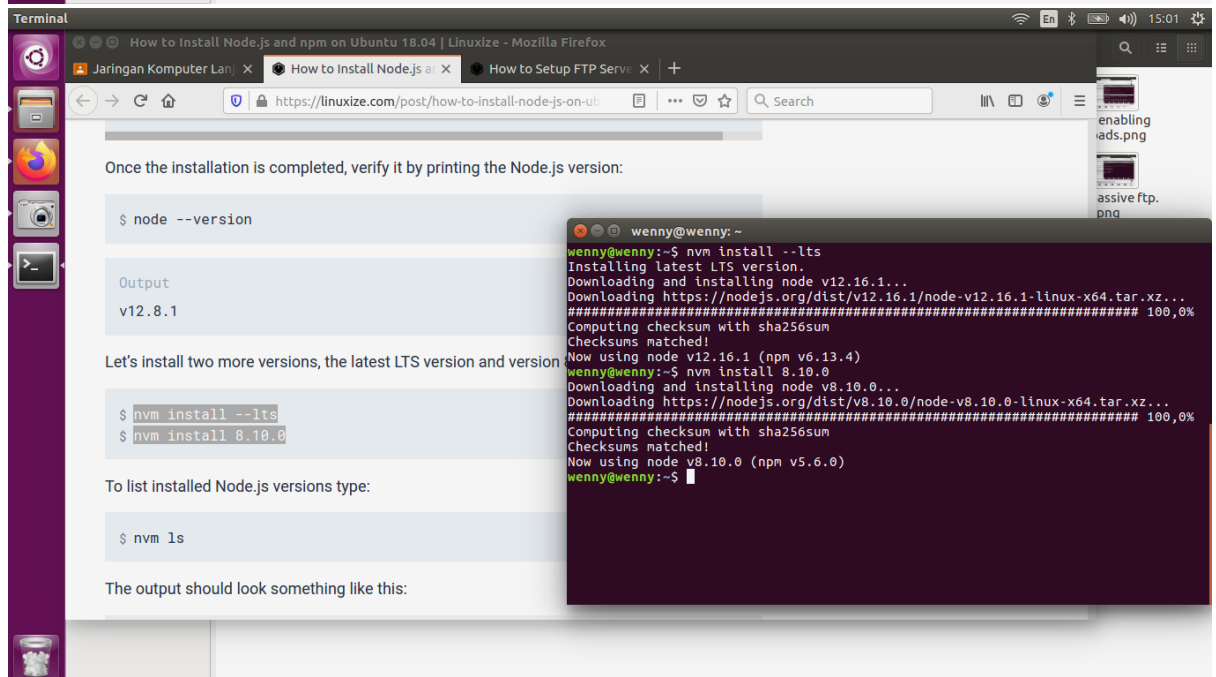
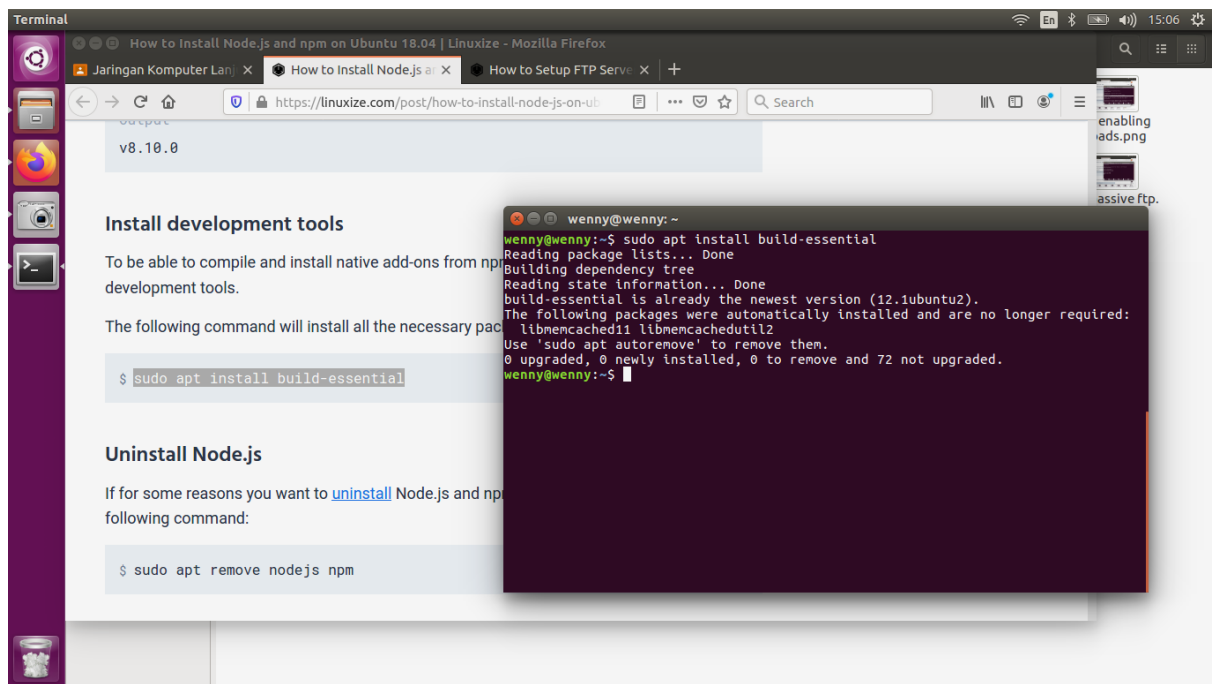
## Confirming "xenial" is supported...
wenny@wenny:~$ curl -sL -o /dev/null 'https://deb.nodesource.com/node_10.x/dists/xenial/Release'
```

wenny@wenny: ~

```
wenny@wenny:~$ sudo apt install nodejs
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libmemcached11 libmemcachedutil2
Use 'sudo apt autoremove' to remove them.
The following NEW packages will be installed:
  nodejs
0 upgraded, 1 newly installed, 0 to remove and 72 not upgraded.
Need to get 16,2 MB of archives.
After this operation, 81,1 MB of additional disk space will be used.
Get:1 https://deb.nodesource.com/node_10.x xenial/main amd64 nodejs amd64 10.19.0-inodesource1 [16,2 MB]
Fetched 16,2 MB in 5s (3,084 kB/s)
Selecting previously unselected package nodejs.
(Reading database ... 222073 files and directories currently installed.)
Preparing to unpack .../nodejs_10.19.0-inodesource1_amd64.deb ...
Unpacking nodejs (10.19.0-inodesource1) ...
Processing triggers for man-db (2.7.5-1) ...

Progress: [ 50%] [#####.....]
```







Terminal

How to Install Node.js and npm on Ubuntu 18.04 | Linuxize - Mozilla Firefox

Jaringan Komputer Lan | X | How to Install Node.js a | X | How to Setup FTP Serve | X | +


https://linuxize.com/post/how-to-install-node-js-on-ub | Search

## 2. Installing Node.js and npm

Now that the `npm` is installed you can install the latest available version of Node.js, by typing:

```
$ npm install node
```

The output should look something like this:



Output

```
wenny@wenny: ~  
wenny@wenny:~$ npm install node  
Downloading and installing node v13.12.0...  
Downloading https://nodejs.org/dist/v13.12.0/node-v13.12.0-linux-x64.tar.xz...  
##### 100,0%  
Computing checksum with sha256sum  
Checksums matched!  
Now using node v13.12.0 (npm v6.14.4)  
Creating default alias: default -> node (-> v13.12.0)  
wenny@wenny:~$
```

Terminal

How to Install Node.js and npm on Ubuntu 18.04 | Linuxize - Mozilla Firefox

Jaringan Komputer Lan | X | How to Install Node.js a | X | How to Setup FTP Serve | X | +

https://linuxize.com/post/how-to-install-node-js-on-ub | Search

easier for you.

Once the script is in your `PATH`, verify that `npm` was properly installed by typing:

```
$ npm --version
```

Output


```
0.34.0
```

## 2. Installing Node.js and npm

Now that the `npm` is installed you can install the latest available version of Node.js, by typing:

```
$ npm install node
```

The output should look something like this:



Output

```
wenny@wenny: ~  
wenny@wenny:~$ export NVM_DIR="$HOME/.nvm"  
wenny@wenny:~$ [ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh" # This loads nvm  
wenny@wenny:~$ [ -s "$NVM_DIR/bash_completion" ] && \. "$NVM_DIR/bash_completion" # This loads nvm bash_completion  
wenny@wenny:~$ npm --version  
0.34.0  
wenny@wenny:~$
```

Terminal

How to Install Node.js and npm on Ubuntu 18.04 | Linuxize - Mozilla Firefox

Jaringan Komputer Lan X How to Install Node.js a X How to Setup FTP Serve X +

https://linuxize.com/post/how-to-install-node-js-on-ubuntu-18.04/

### Installing Node.js and npm using NVM

NVM (Node Version Manager) is a bash script used to manage multiple versions of Node.js. With NVM you can install and uninstall any specific version of Node.js or test.

To install Node.js and npm using NVM on your Ubuntu system, follow these steps:

#### 1. Installing NVM (Node Version Manager) script

To download and install the `nvm` script run:

```
curl -o- https://raw.githubusercontent.com/creationix/nvm/v0.35.0/install.sh | bash
```

The command above will clone the NVM repository from GitHub.

**CHANGE THE OLD SKIN TO COOL!**

Output

```
wenny@wenny: ~$ curl -o- https://raw.githubusercontent.com/creationix/nvm/v0.35.0/install.sh | bash
% Total % Received % Xferd Average Speed Time Time Time Current
 100 13226 100 13226 0 0 2276 0 0:00:05 0:00:05 --:--:-- 3079
=> Downloading nvm from git to '/home/wenny/.nvm'...
=> Cloning into '/home/wenny/.nvm'...
remote: Enumerating objects: 278, done.
remote: Counting objects: 100% (278/278), done.
remote: Compressing objects: 100% (245/245), done.
remote: Total 278 (delta 32), reused 95 (delta 20), pack-reused 0
Receiving objects: 100% (278/278), 142.15 KiB | 115.00 KiB/s, done.
Resolving deltas: 100% (32/32), done.
Checking connectivity... done.
=> Compressing and cleaning up git repository

=> Appending nvm source string to /home/wenny/.bashrc
=> Appending bash_completion source string to /home/wenny/.bashrc
=> Close and reopen your terminal to start using nvm or run the following to use it now:

export NVM_DIR="$HOME/.nvm"
[ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh" # This loads nvm
[ -s "$NVM_DIR/bash_completion" ] && \. "$NVM_DIR/bash_completion" # This loads nvm bash_completion
wenny@wenny:~$
```

Terminal

How to Install Node.js and npm on Ubuntu 18.04 | Linuxize - Mozilla Firefox

Jaringan Komputer Lan X How to Install Node.js a X How to Setup FTP Serve X +

https://linuxize.com/post/how-to-install-node-js-on-ubuntu-18.04/

Linuxize Ubuntu Centos Debian Commands Series Donate

```
$ nvm alias default 10.16.3
```

### Install Node.js and npm from the Ubuntu repository

Node.js and npm packages are available from the default Ubuntu repository.

At the time of writing, the version included in the Ubuntu repository is 10.16.3.

To install `nodejs` and `npm` run the following commands:

```
$ sudo apt update
$ sudo apt install nodejs
```

**Navigate Design and Test for Automotive Ethernet** GET THE WHITEPAPER

```
wenny@wenny: ~$ sudo apt update
Hit:3 http://ppa.launchpad.net/certbot/certbot/ubuntu xenial InRelease
Hit:4 http://id.archive.ubuntu.com/ubuntu xenial InRelease
Get:5 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Get:6 https://apt.kubernetes.io/kubernetes-xenial InRelease
Get:7 http://id.archive.ubuntu.com/ubuntu xenial-updates InRelease [109 kB]
Hit:8 http://ppa.launchpad.net/ondrej/php/ubuntu xenial InRelease
Get:9 http://id.archive.ubuntu.com/ubuntu xenial-backports InRelease [107 kB]
Fetched 325 kB in 2s (133 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
72 packages can be upgraded. Run 'apt list --upgradable' to see them.
wenny@wenny:~$ sudo apt install nodejs
Reading package lists... Done
Building dependency tree
Reading state information... Done
nodejs is already the newest version (10.19.0-1nodesource1).
The following packages were automatically installed and are no longer required:
  libmemcached11 libmemcachedutil2
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 72 not upgraded.
wenny@wenny:~$ nodejs --version
v10.19.0
wenny@wenny:~$
```

Terminal

How to Install Node.js and npm on Ubuntu 18.04 | Linuxize - Mozilla Firefox

Jaringan Komputer Lan X How to Install Node.js a X How to Setup FTP Serve X +

https://linuxize.com/post/how-to-install-node-js-on-ub...

To list installed Node.js versions type:

```
$ nvm ls
```

The output should look something like this:

Output

```
->      v8.10.0
        v10.16.3
        v12.8.1
default -> node (-> v12.8.1)
node -> stable (-> v12.8.1) (default)
stable -> 12.8 (-> v12.8.1) (default)
iojs -> N/A (default)
unstable -> N/A (default)
lts/* -> lts/dubnium (-> v10.16.3)
lts/argon -> v4.9.1 (-> N/A)
lts/boron -> v6.17.1 (-> N/A)
lts/carbon -> v8.16.1 (-> N/A)
lts/dubnium -> v10.16.3
```

The output with a green arrow on the right (v8.10.0) is the Node.js version used in the current...

wenny@wenny: ~

```
wenny@wenny:~$ nvm ls
->      v8.10.0
        v12.16.1
        v13.12.0
default -> node (-> v13.12.0)
node -> stable (-> v13.12.0) (default)
stable -> 13.12 (-> v13.12.0) (default)
iojs -> N/A (default)
unstable -> N/A (default)
lts/* -> lts/erbium (-> v12.16.1)
lts/argon -> v4.9.1 (-> N/A)
lts/boron -> v6.17.1 (-> N/A)
lts/carbon -> v8.17.0 (-> N/A)
lts/dubnium -> v10.19.0 (-> N/A)
lts/erbium -> v12.16.1
wenny@wenny:~$
```

Terminal

How to Install Node.js and npm on Ubuntu 18.04 | Linuxize - Mozilla Firefox

Jaringan Komputer Lan X How to Install Node.js a X How to Setup FTP Serve X +

https://linuxize.com/post/how-to-install-node-js-on-ub...

Once the installation is completed, verify it by printing the Node.js version:

```
$ node --version
```

Output

```
v12.8.1
```

Let's install two more versions, the latest LTS version and version 8.10.0

```
$ nvm install --lts
$ nvm install 8.10.0
```

To list installed Node.js versions type:

```
$ nvm ls
```

The output should look something like this:

wenny@wenny: ~

```
wenny@wenny:~$ node --version
v13.12.0
wenny@wenny:~$
```

```
wenny@wenny: ~  
wenny@wenny:~$ nvm use 10.16.3  
N/A: version "10.16.3 -> N/A" is not yet installed.  
  
You need to run "nvm install 10.16.3" to install it before using it.  
wenny@wenny:~$ nvm install 10.16.3  
Downloading and installing node v10.16.3...  
Downloading https://nodejs.org/dist/v10.16.3/node-v10.16.3-linux-x64.tar.xz...  
##### 100,0%  
Computing checksum with sha256sum  
Checksums matched!  
Now using node v10.16.3 (npm v6.9.0)  
wenny@wenny:~$ nvm alias default 10.16.3  
default -> 10.16.3 (-> v10.16.3)  
wenny@wenny:~$  
  
wenny@wenny: ~  
wenny@wenny:~$ nvm use 10.16.3  
N/A: version "10.16.3 -> N/A" is not yet installed.  
  
You need to run "nvm install 10.16.3" to install it before using it.  
wenny@wenny:~$ nvm install 10.16.3  
Downloading and installing node v10.16.3...  
Downloading https://nodejs.org/dist/v10.16.3/node-v10.16.3-linux-x64.tar.xz...  
##### 100,0%  
Computing checksum with sha256sum  
Checksums matched!  
Now using node v10.16.3 (npm v6.9.0)  
wenny@wenny:~$
```