

Nama : Reo Sahobby

Nim : 123170067

Pengenal Cloud Computing Pengenal VMware Workstation dan Linux OS

Pengenal VMware Workstation

Membuat layanan Hosting berbasis Private Cloud

- a. Apache
- b. MySQL
- c. PHP
- d. PHPMyAdmin

1. Pengenal VMware Workstation

Virtual OS, ada Linux, Windows, Linux

Aplikasi : vmware workstation server

OS pada komputer : linux/windows

Hardware fisik : komputer lab

Kalau bawah tidak berjalan maka atas tidak berjalan

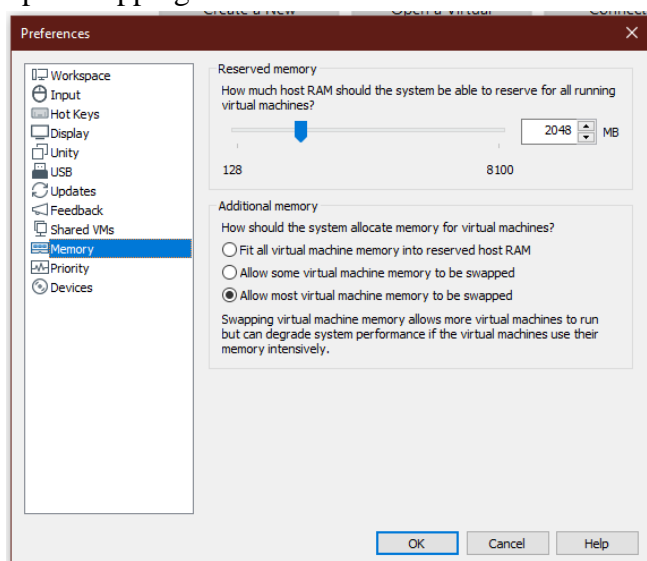
Digunakan untuk virtualisasi sistem operasi.

Virtualisasi, adalah kegiatan untuk menciptakan versi maya (tidak nyata), misalnya hardware, software, storage, dan resource komputer.

Contoh yang dapat divirtualisasikan CPU, RAM, Network Adapter, Hardisk, Motherboard, VGA, PCI-e, Printer, Soundcard, dsb.

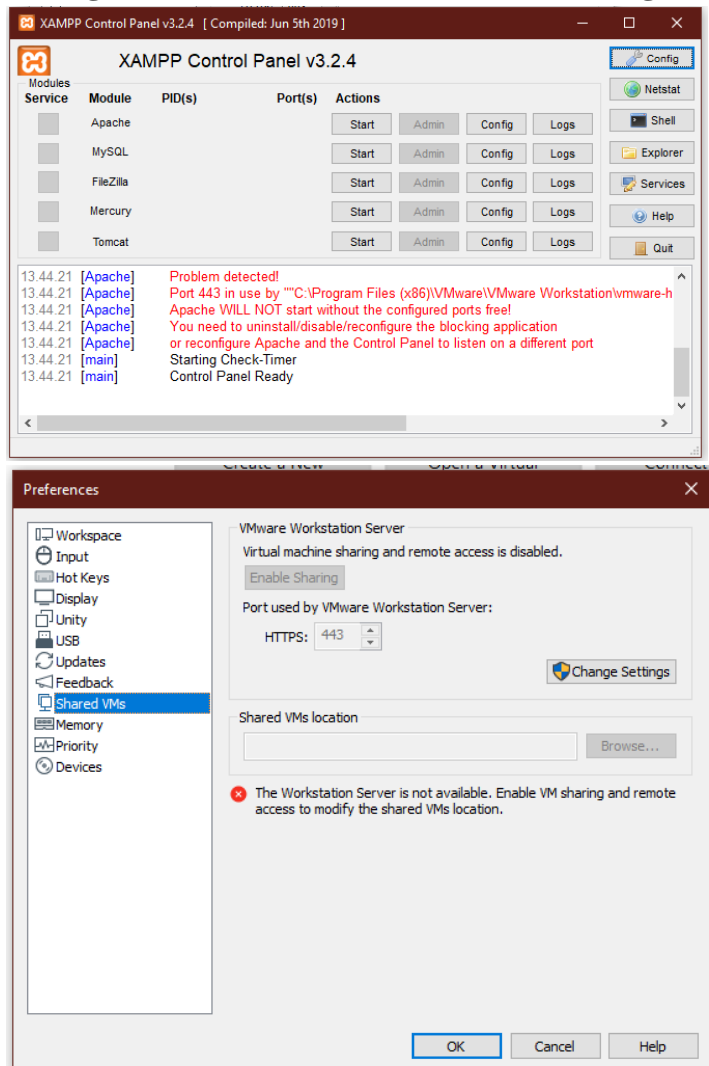
Fitur-fitur

Swapping : bila tidak memiliki ram yang cukup untuk install VM, maka digunakan opsi swapping.



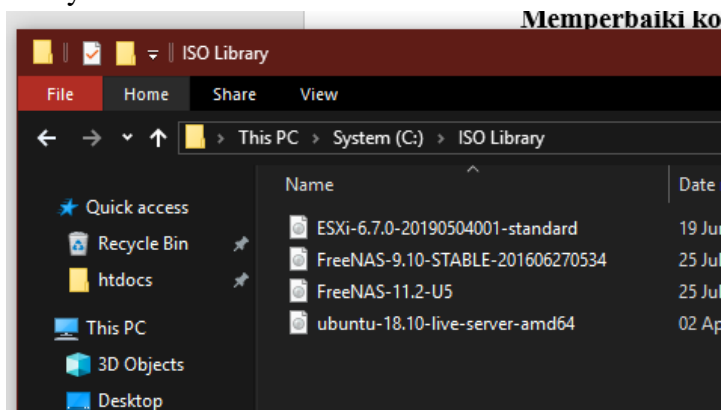
Memperbaiki konflik port pada xampp

Matikan fitur shared VM pada menu konfigurasi VMWare, dengan cara click **Change Setting** terlebih dahulu lalu klik **Disable Sharing**



Linux OS (Ubuntu)

Harus siapkan masternya atau isonya, cek dulu di komputer. Ternyata sudah ada.

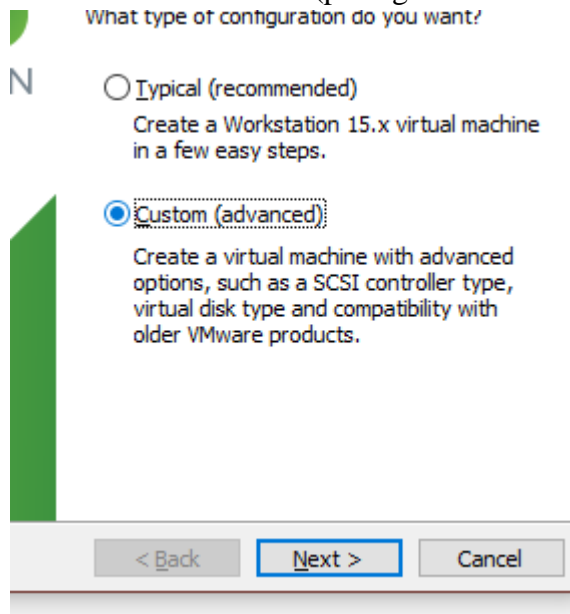


Setelah mempersiapkan isonya, kita buat creat vm.

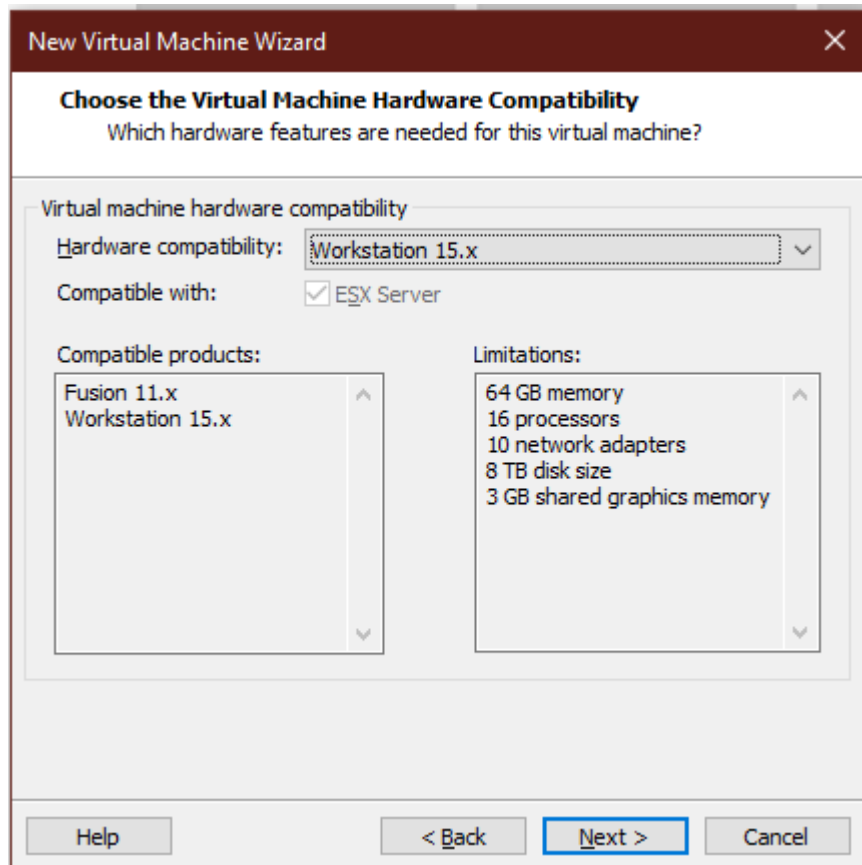


Tahap-Tahap

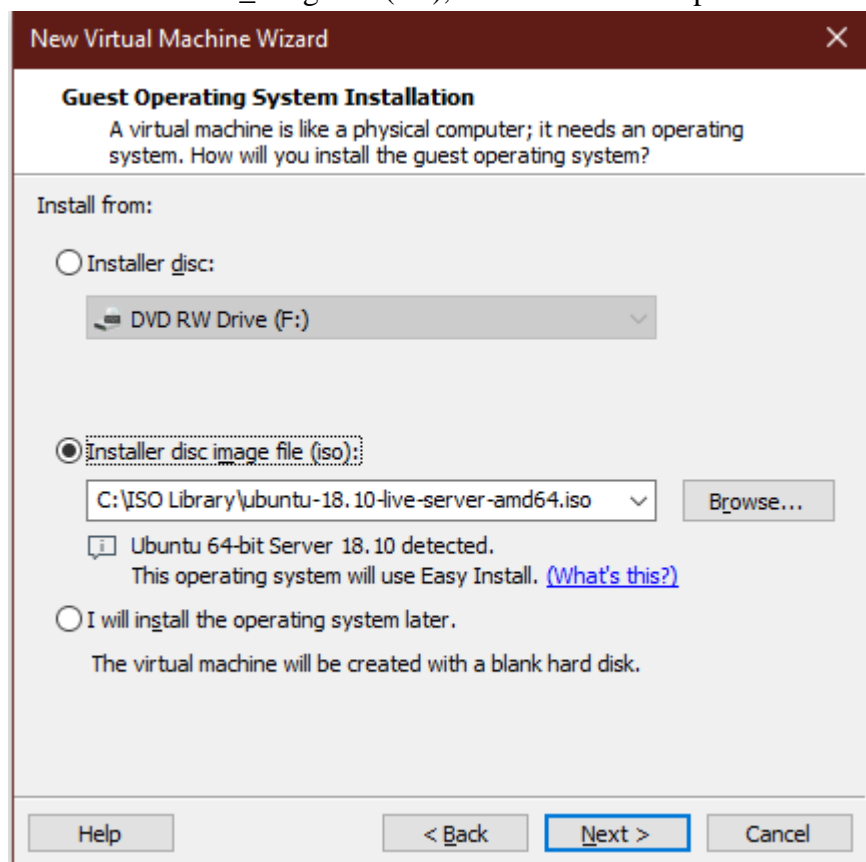
1. Gunakan mode custom (pada gambar di atas).



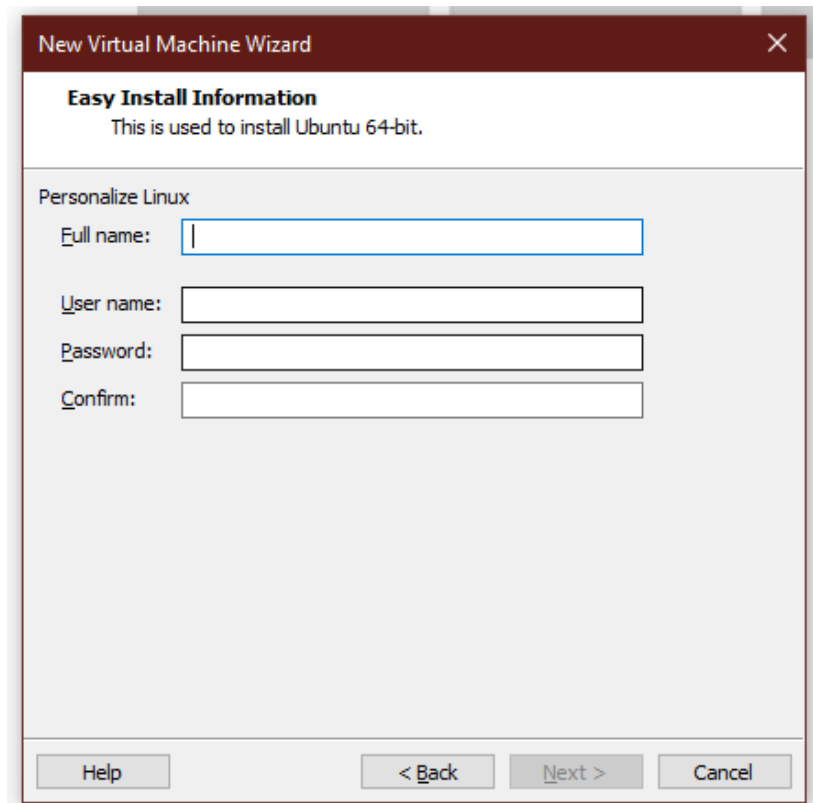
2. Tentukan kompatibilitas dari os yang kita install.
Karen menggunakan ubuntu yang terbaru, maka pakai kompaibiliti yang baru, default tidak perlu diubah-ubah. (**Workstation 15.x**)



3. Pilih installer disc_image file(iso), kemudian browse pilih file iso master tadi.

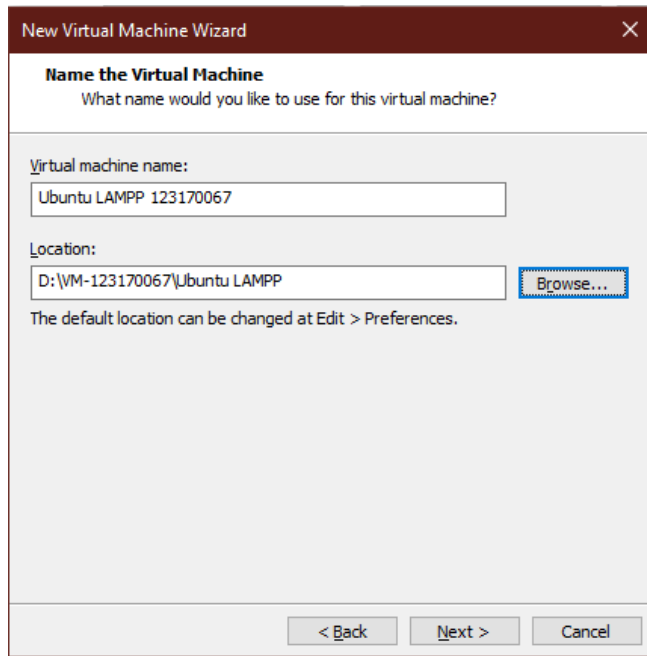


4. Masukkan sembarang nama.



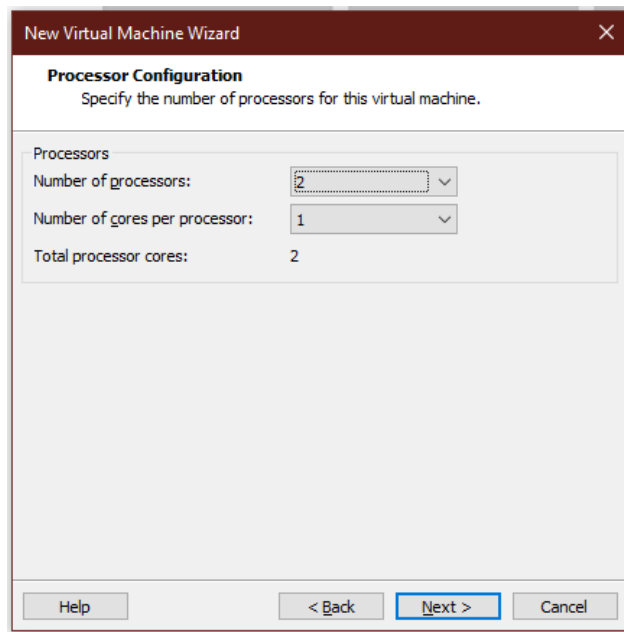
The screenshot shows the 'New Virtual Machine Wizard' window with the 'Easy Install Information' tab selected. The window title is 'New Virtual Machine Wizard'. Below the title bar, it says 'Easy Install Information' and 'This is used to install Ubuntu 64-bit.' The main section is titled 'Personalize Linux' and contains four input fields: 'Full name:', 'User name:', 'Password:', and 'Confirm:'. The 'Full name:' field is currently empty and has a blue border. At the bottom of the window, there are four buttons: 'Help', '< Back', 'Next >', and 'Cancel'.

5. Akan keluar seperti ini. Namanya dibuat Ubuntu LAMPP 123170067
Lokasinya ke data D:/VM-NIM/Ubuntu LAMPP

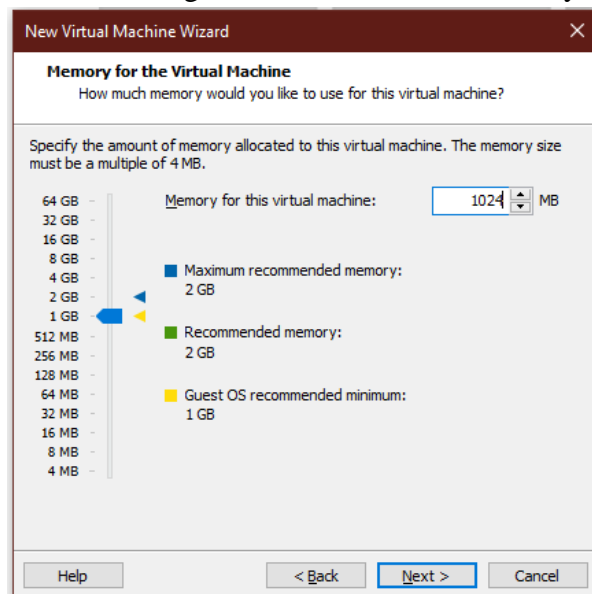


The screenshot shows the 'New Virtual Machine Wizard' window with the 'Name the Virtual Machine' tab selected. The window title is 'New Virtual Machine Wizard'. Below the title bar, it says 'Name the Virtual Machine' and 'What name would you like to use for this virtual machine?'. The main section contains two input fields: 'Virtual machine name:' and 'Location:'. The 'Virtual machine name:' field contains the text 'Ubuntu LAMPP 123170067'. The 'Location:' field contains the text 'D:\VM-123170067\Ubuntu LAMPP'. To the right of the 'Location:' field is a 'Browse...' button. Below the input fields, there is a note: 'The default location can be changed at Edit > Preferences.' At the bottom of the window, there are three buttons: '< Back', 'Next >', and 'Cancel'.

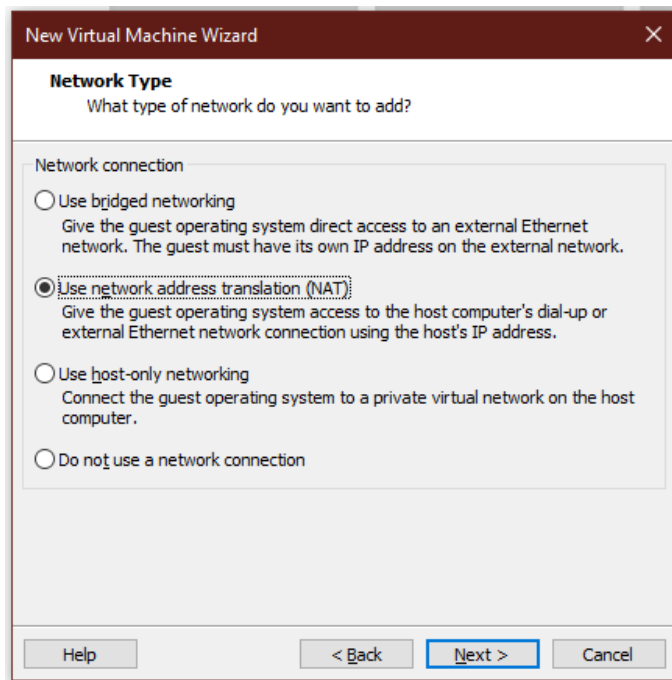
6. Gunakan Processor 2, core 1.



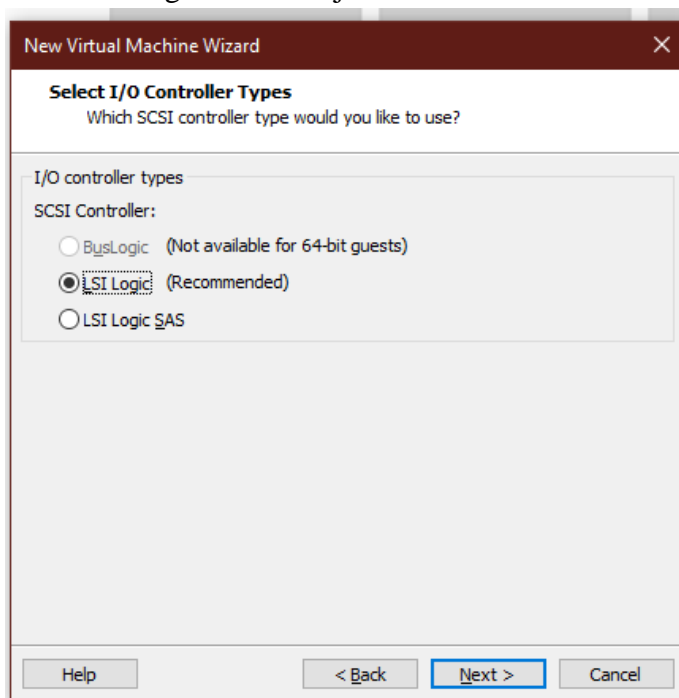
7. Setelah Setting Processor, tentukan RAM nya. Pilih 1 gb. 1024mb.



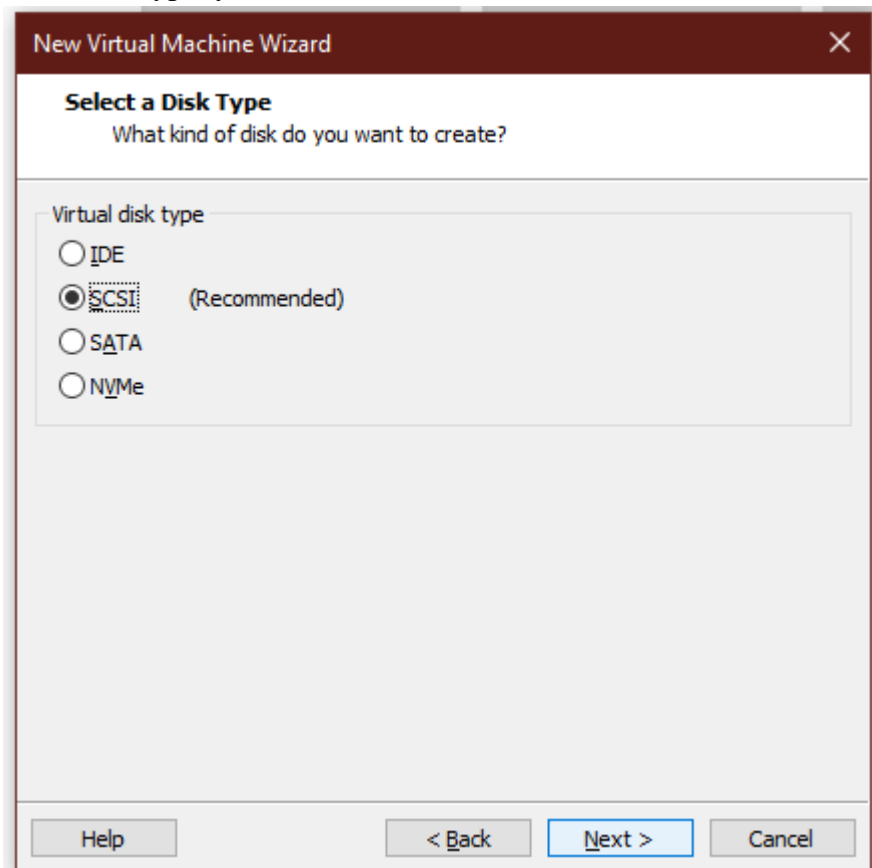
8. Setelah menentukan RAM, kita tentukan mode jaringan.
Pilih NAT, nat seperti bridge namun tidak mudah diakses dari external.langsung saja pilih NAT ya.



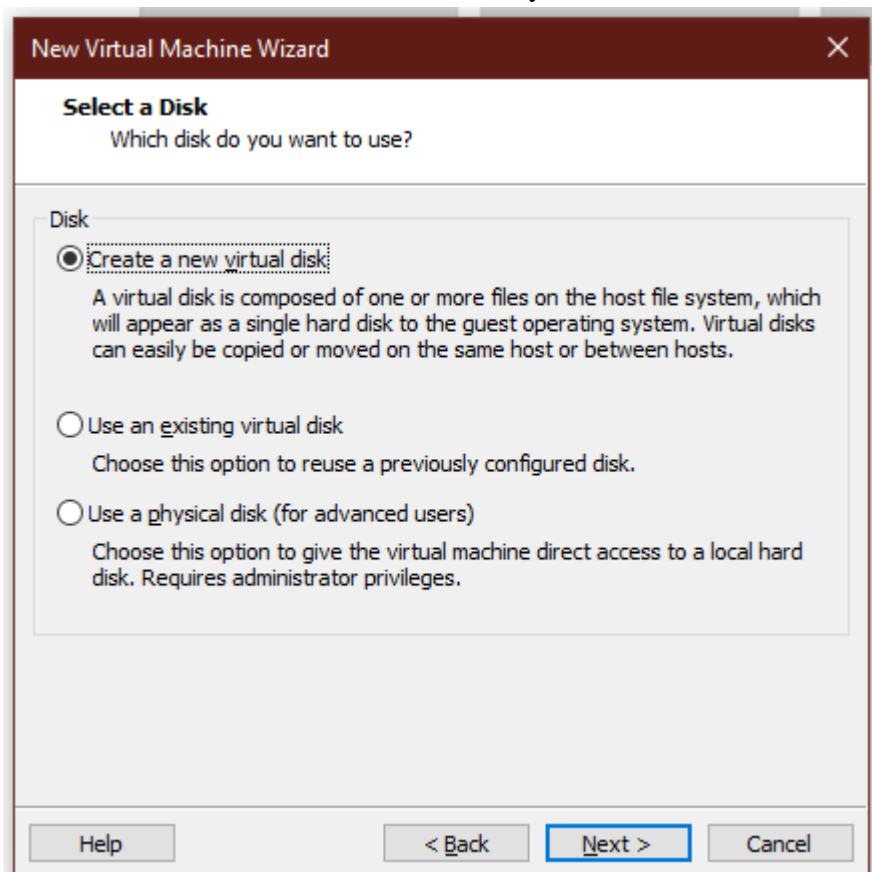
9. Pilih LSI Logic default saja.



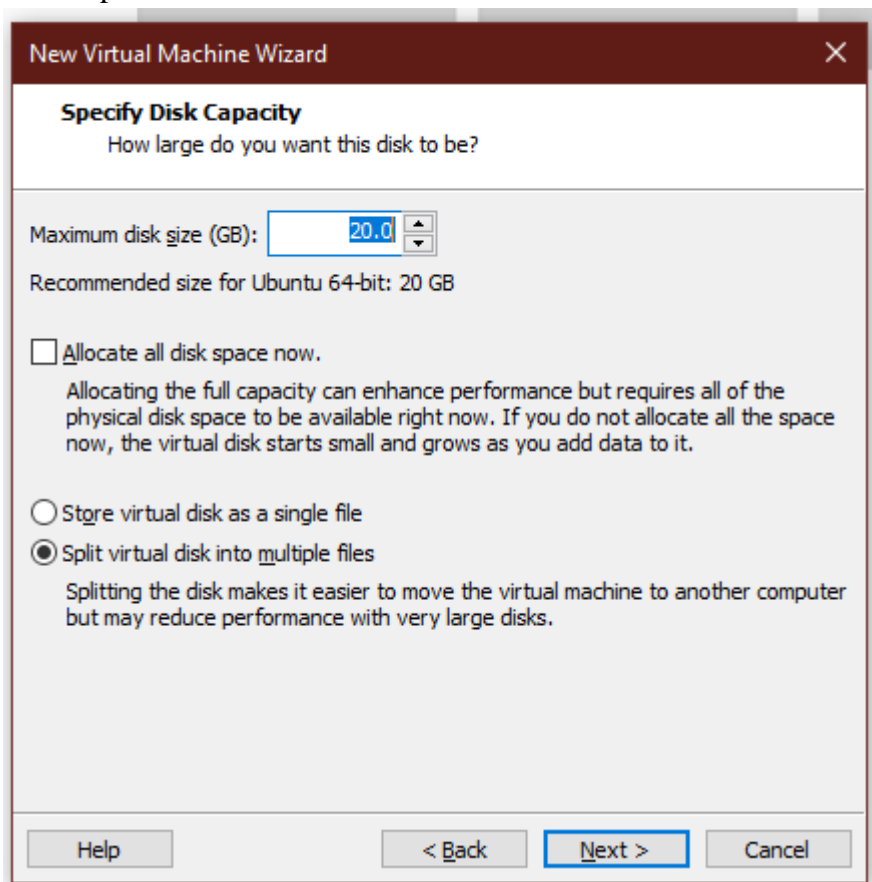
10. Pilih Disk Typenya SCSI Recommended.



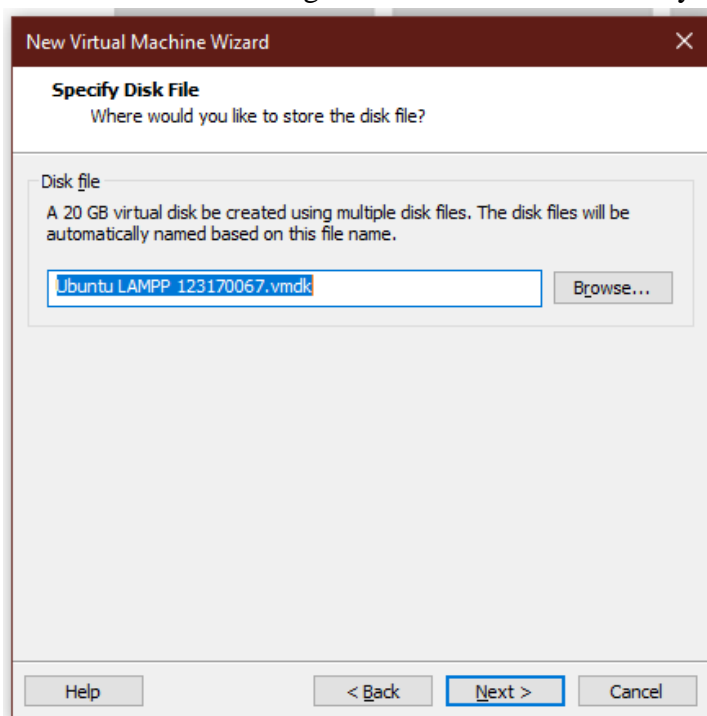
11. Kemudian, kita rakit untuk disk/hardisknya. Pilih mode Create a new yang atas.



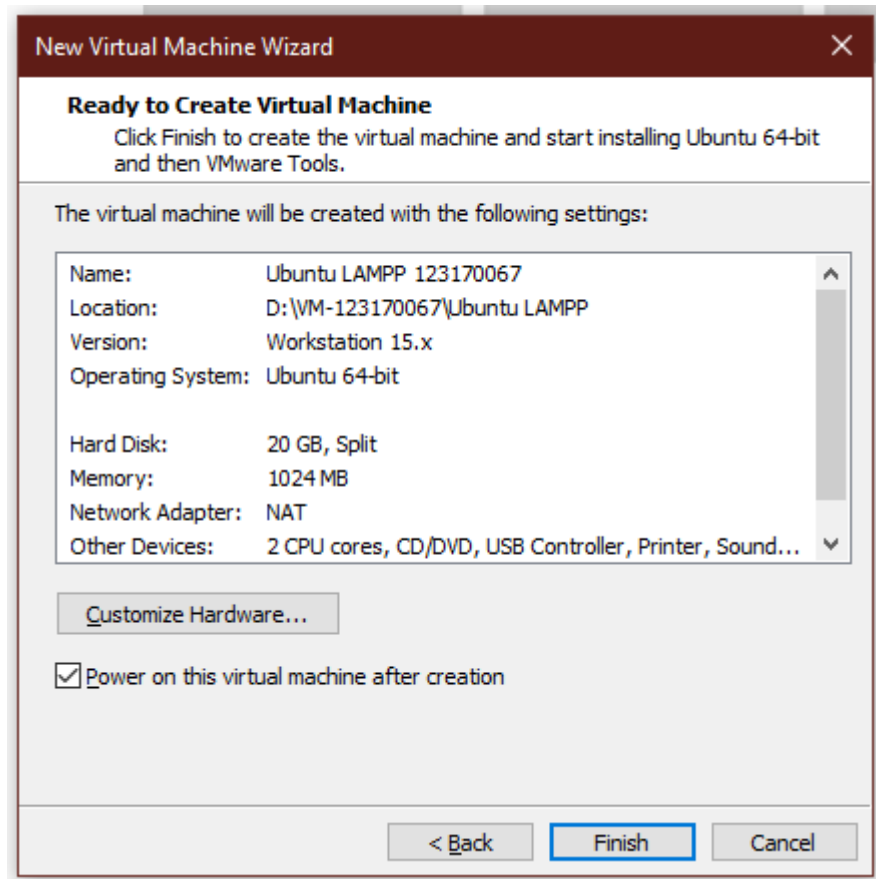
12. Tentukan ukuran hardisknya, kita akan create 20gb. Kemudian yang bawah pilih mode Split.



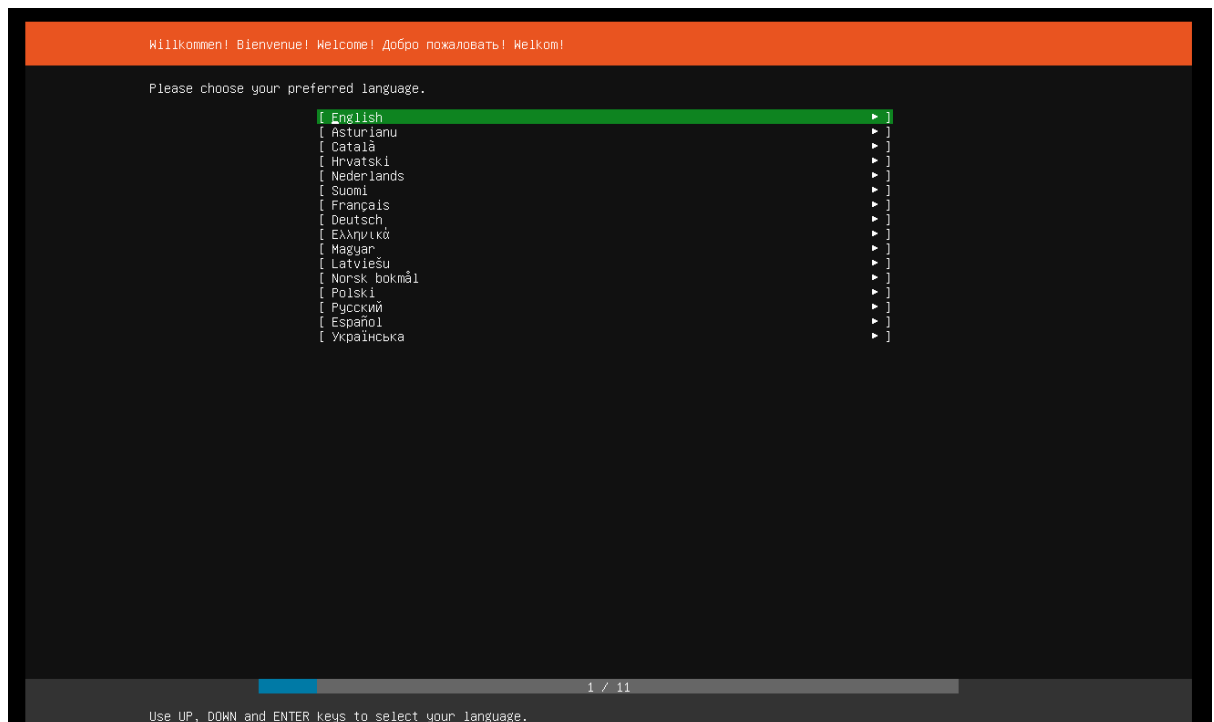
13. Muncul konfirmas mengenai file name dari hardisknya.



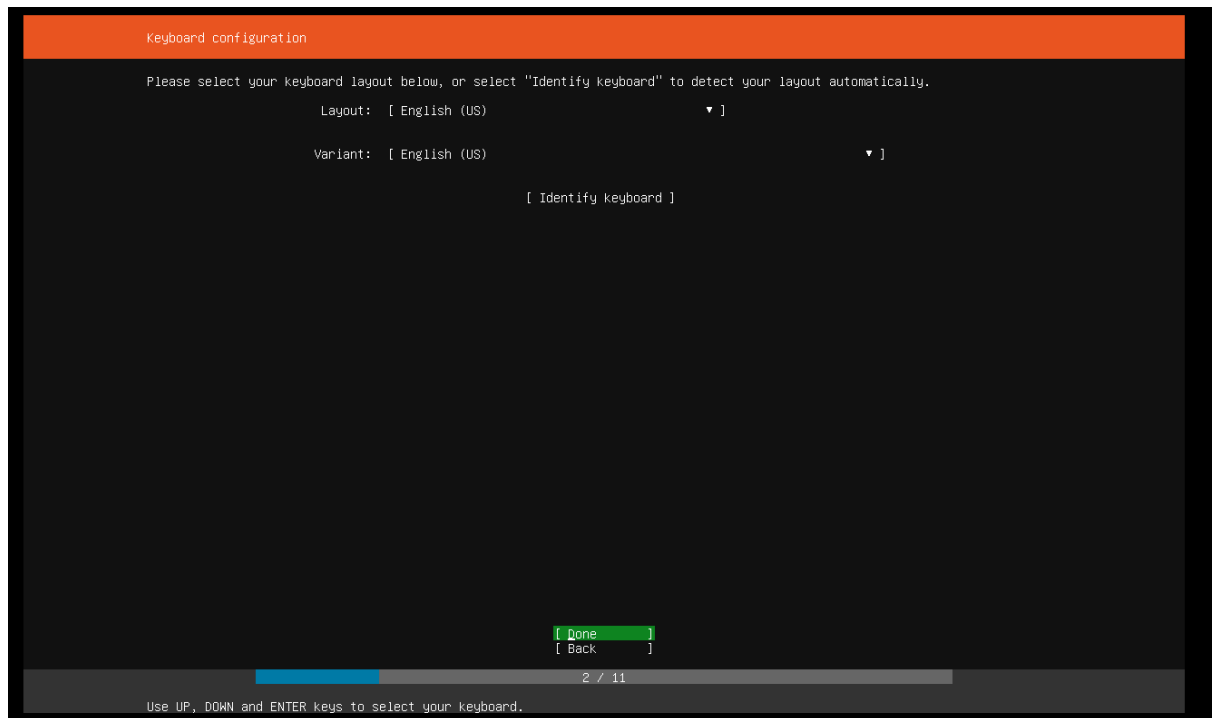
14. Sudah Selesai. Jangan lupa centang. Kemudian klik finish maka akan run langsung.



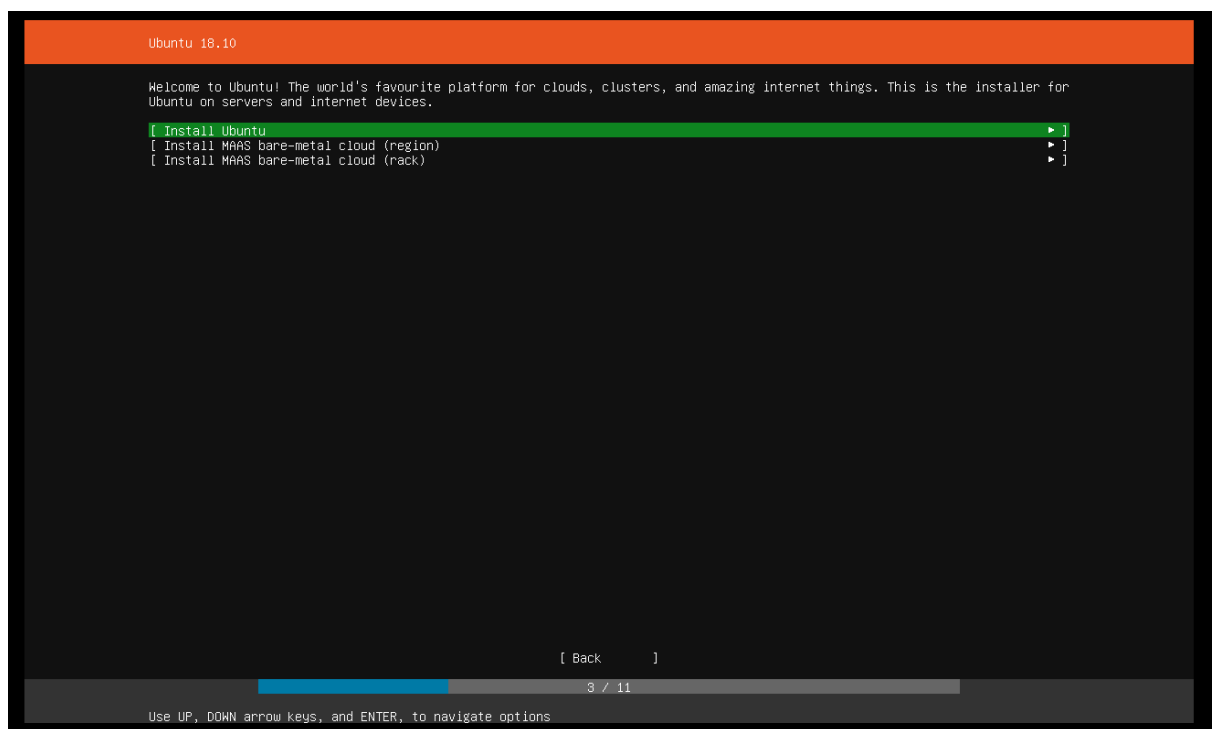
Instalasi



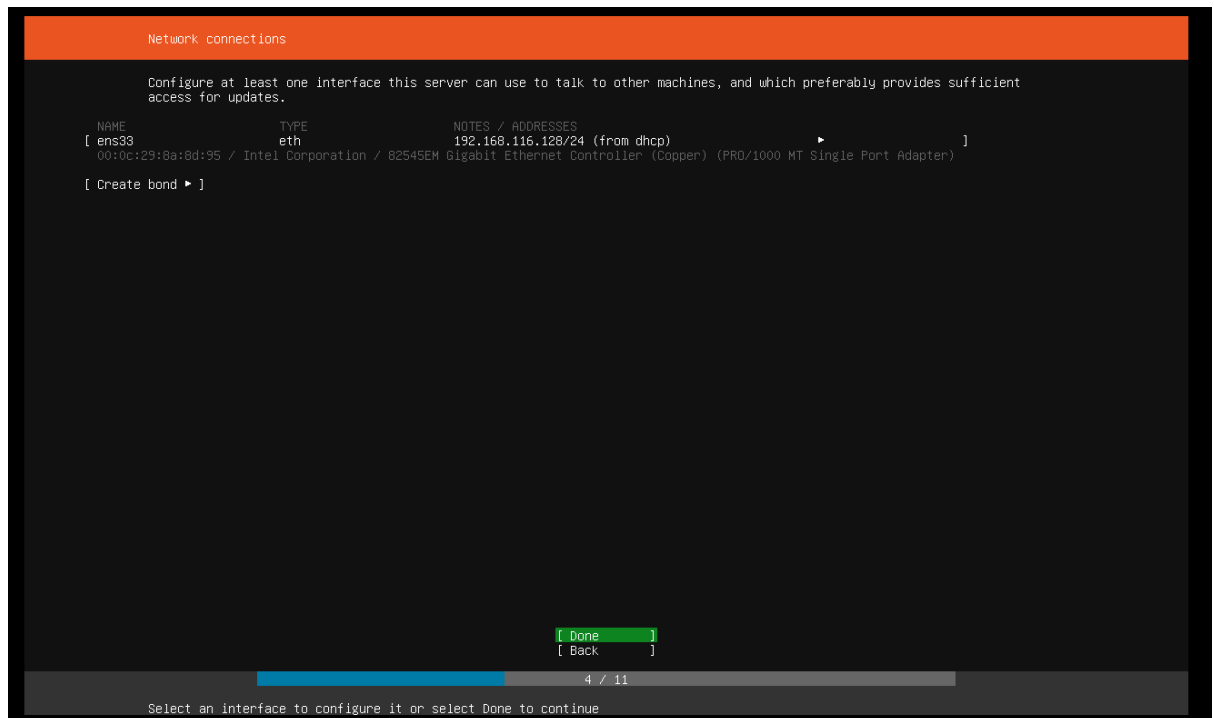
Untuk interaksi dengan windows vmnya, maka bisa klik ctrl+G, dan jika ingin keluar dari interaksi ctrl+alt.



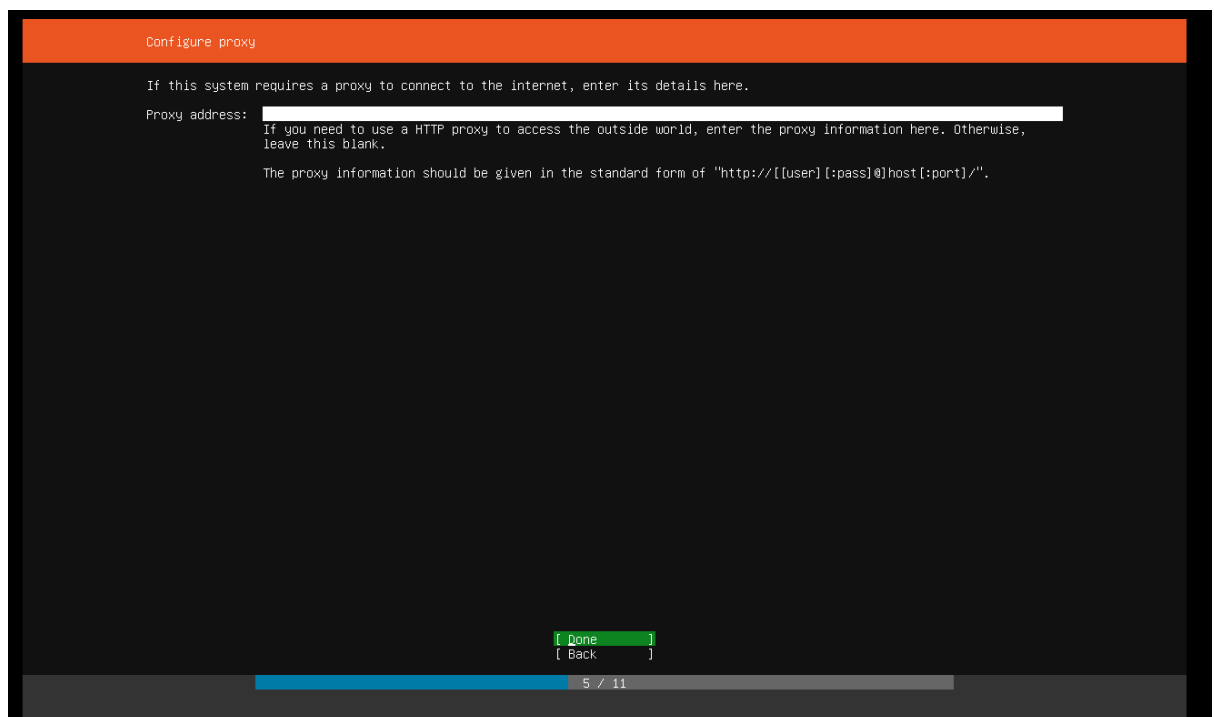
Pilih done



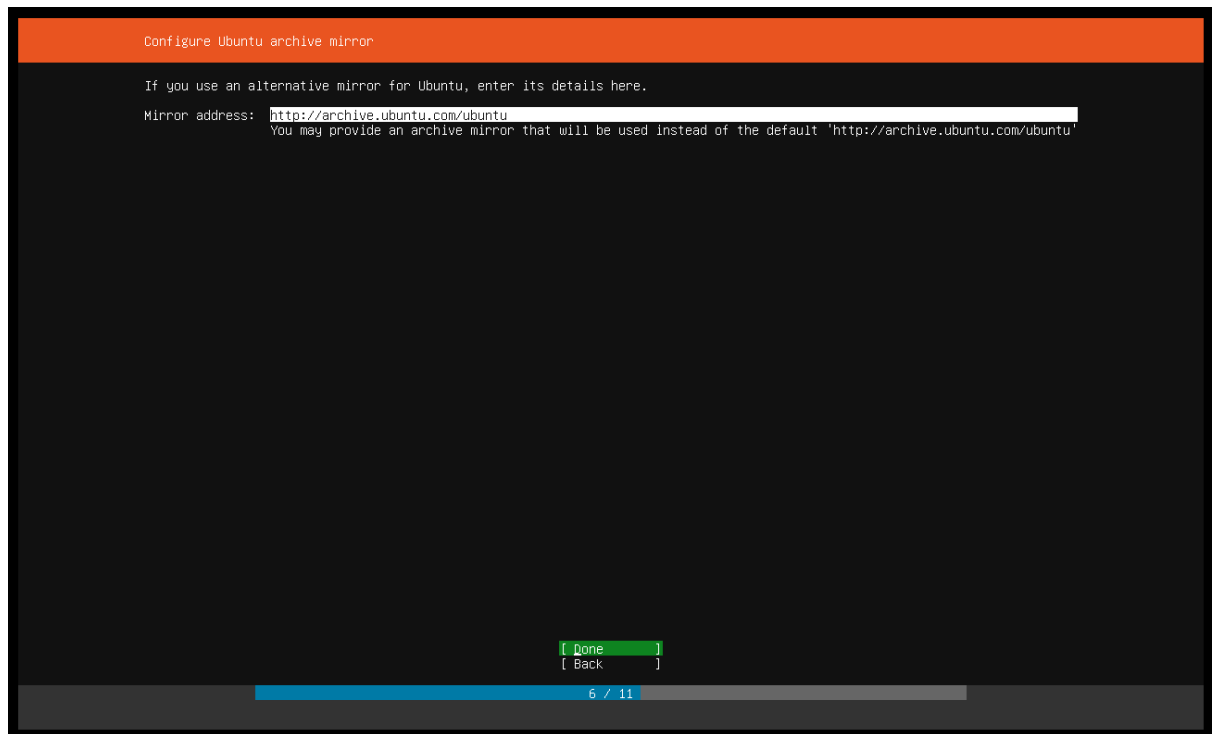
Pilih yang paling atas, install ubuntu biasa.



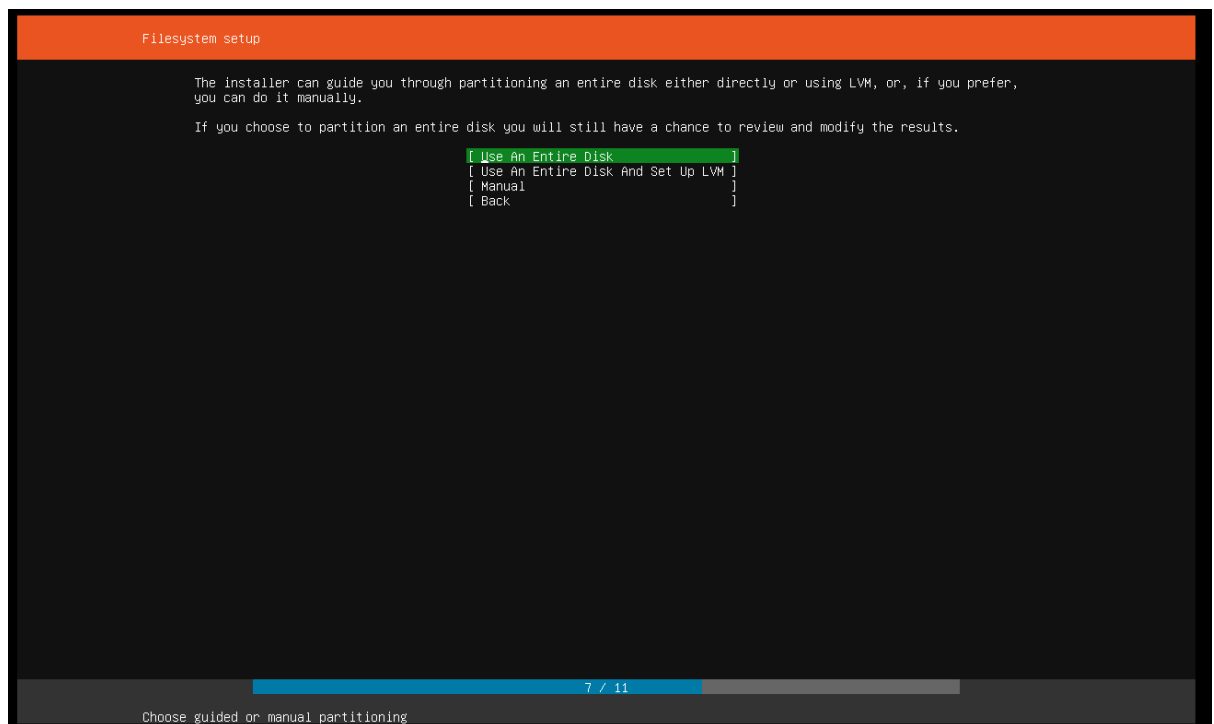
Masuk ke konfigurasi jaringan. Maka butuh koneksi jaringan, IP nya akan muncul di tengah. Tekan enter.



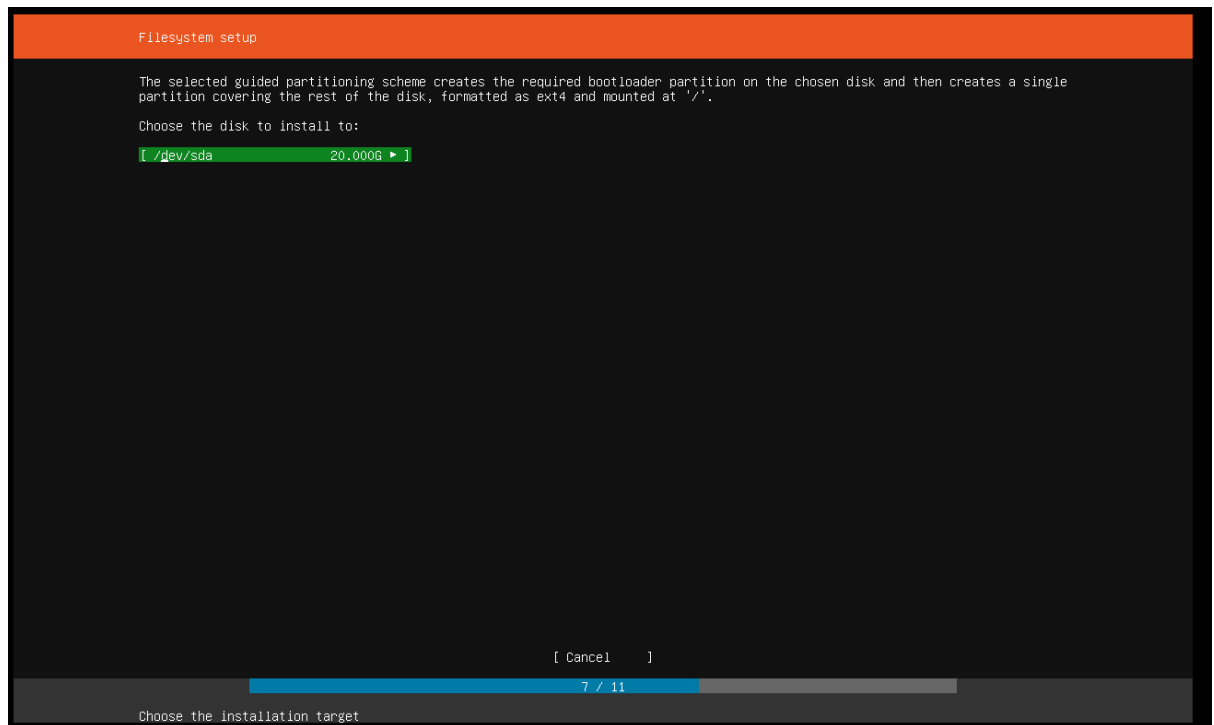
Masuk ke proxy langsung next saja, karena kampus tidak perlu proxy.



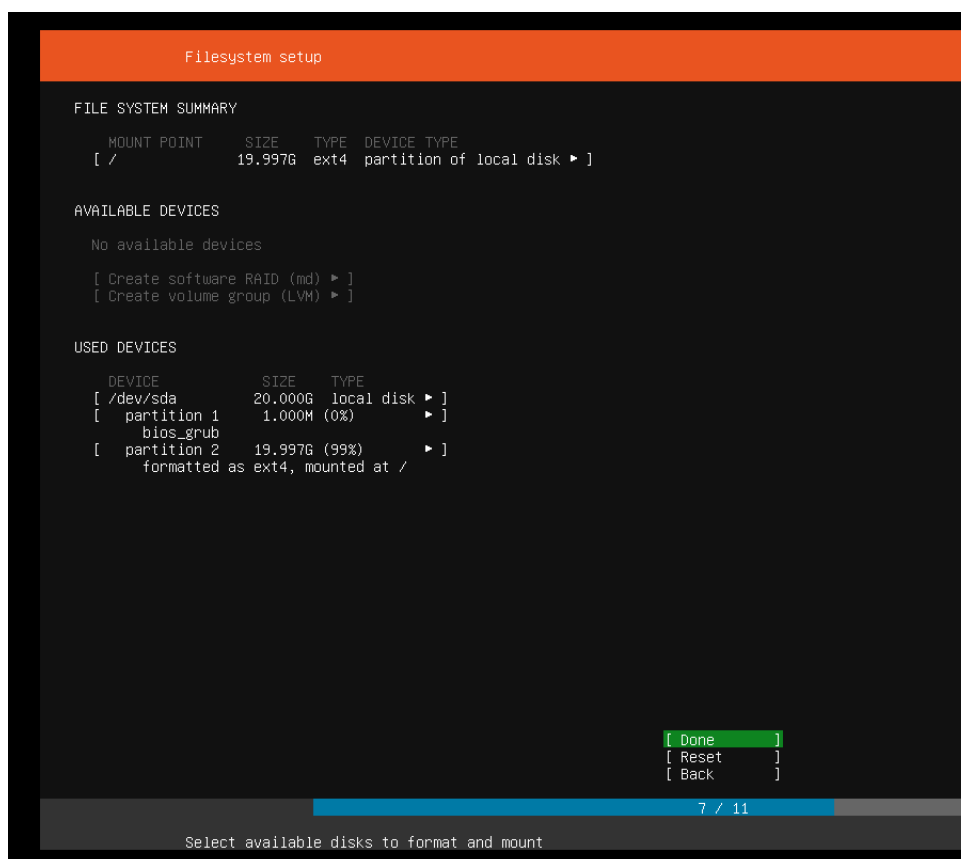
Bagian achiev langsung next saja.



Masuk ke tahapan disk, pilih use an entire disk.



Pilih yang 20gb nya. Pilih dev/sda.



Akan muncul ringkasannya, kemudian pilih done/tekan enter.

Profile setup

Enter the username and password (or ssh identity) you will use to log in to the system.

Your name:

Your server's name:
The name it uses when it talks to other computers.

Pick a username:

Choose a password:

Confirm your password:

Import SSH identity: [No ▼]
You can import your SSH keys from Github or Launchpad.

Import Username:

[Done]

7 / 11

Install in progress: acquiring and extracting image from cp:///media/filesystem

Isi dulu.

Featured Server Snaps

These are popular snaps in server environments. Select or deselect with SPACE, press ENTER to see more details of the package, publisher and versions available.

<input checked="" type="checkbox"/> microk8s	canonical	Kubernetes for workstations and appliances
<input type="checkbox"/> nextcloud	nextcloud	Nextcloud Server - A safe home for all your data
<input type="checkbox"/> wekan	xet7	Open-Source Kanban
<input type="checkbox"/> kata-containers	katacontainers	Lightweight virtual machines that seamlessly plug into the containers ecosystem
<input type="checkbox"/> docker	canonical	Docker container runtime
<input type="checkbox"/> canonical-livepatch	canonical	Canonical Livepatch Client
<input type="checkbox"/> rocketchat-server	rocketchat	Group chat server for 100s, installed in seconds.
<input type="checkbox"/> mosquito	ralight	Eclipse Mosquitto MQTT broker
<input type="checkbox"/> etcd	canonical	Resilient key-value store by CoreOS
<input type="checkbox"/> powershell	microsoft-powershell	PowerShell for every system!
<input type="checkbox"/> stress-ng	cking-kernel-tools	A tool to load, stress test and benchmark a computer system
<input type="checkbox"/> sabnzbd	safihre	SABnzbd
<input type="checkbox"/> wormhole	snappcrafters	get things from one computer to another, safely
<input type="checkbox"/> aws-cli	aws	Universal Command Line Interface for Amazon Web Services
<input type="checkbox"/> google-cloud-sdk	google-cloud-sdk	Command-line interface for Google Cloud Platform products and services
<input type="checkbox"/> slcli	softlayer	Python based SoftLayer API Tool.
<input type="checkbox"/> doctl	digitalocean	DigitalOcean command line tool
<input type="checkbox"/> conjure-up	canonical	Package runtime for conjure-up spells
<input type="checkbox"/> minidlna-escoand	escoand	server software with the aim of being fully compliant with DLNA/UPnP clients.
<input type="checkbox"/> postgresql10	cmd	PostgreSQL is a powerful, open source object-relational database system.
<input type="checkbox"/> heroku	heroku	CLI client for Heroku
<input type="checkbox"/> keepalived	keepalived-project	High availability VRRP/BFD and load-balancing for Linux
<input type="checkbox"/> prometheus	canonical-is-snaps	The Prometheus monitoring system and time series database
<input type="checkbox"/> juju	canonical	Simple, secure and stable devops. Juju keeps complexity low and productivity high.

[Done]

7 / 11

Install in progress: installing kernel

Muncul seperti ini. Klik done.

Installing system

```
curtin command install
preparing for installation
configuring storage
  running 'curtin block-meta simple'
  curtin command block-meta
  removing previous storage devices
  configuring disk: disk-0
  configuring partition: part-0
  configuring partition: part-1
  configuring format: fs-0
  configuring mount: mount-0
configuring network
  running 'curtin net-meta auto'
  curtin command net-meta
writing install sources to disk
  running 'curtin extract'
  curtin command extract
  acquiring and extracting image from cp:///media/filesystem
configuring installed system
  running 'curtin curthooks'
  curtin command curthooks
  configuring apt configuring apt
  installing missing packages
  configuring iscsi service
  configuring raid (mdadm) service
  installing kernel |
```

[View full log]

10 / 11

Thank you for using Ubuntu!

Mucnul seperti ini. Tunggu proses instalasi.

Ubuntu 18.10 reo-server tty1

```
reo-server login:          Mounting Mount unit for lxd, revision 9239...
[ OK ] Mounted Mount unit for lxd, revision 9239.
[ OK ] Listening on Socket unix for snap application lxd.daemon.
[ OK ] Starting Service for snap application lxd.activate...
[ OK ] Started Service for snap application lxd.activate.
[ OK ] Started Wait until snapd is fully seeded.
      Starting Apply the settings specified in cloud-config...
[ 22.232018] cloud-init[2158]: Generating locales (this might take a while)...
[ 23.586630] cloud-init[2158]:   en_US.UTF-8... done
[ 23.587200] cloud-init[2158]: Generation complete.
[ 23.793211] cloud-init[2158]: Cloud-init v. 18.4-7-g4652b196-0ubuntu1 running 'modules:config' at Thu, 13 Feb 2020 07:32:17 +0000. Up 22.14 seconds.
[ OK ] Started Apply the settings specified in cloud-config.
[ OK ] Started System Logging Service.
[ OK ] Reached target Multi-User System.
      Starting Execute cloud user/final scripts...
[ OK ] Reached target Graphical Interface.
      Starting Update UTMp about System Runlevel Changes...
[ OK ] Started Update UTMp about System Runlevel Changes.
ci-info: no authorized ssh keys fingerprints found for user rshby.
<14>Feb 13 07:32:19 ec2: #####
<14>Feb 13 07:32:19 ec2: -----BEGIN SSH HOST KEY FINGERPRINTS-----
<14>Feb 13 07:32:19 ec2: 1024 SHA256:K9Q9IRVqNR0d1dwUOLCvQdCN/2F3okFoKqGyJ5s0fM root@reo-server (DSA)
<14>Feb 13 07:32:19 ec2: 256 SHA256:N2KJisRgtwL96TYgePCntoShgEbCnenvdvScVvXW8KM root@reo-server (EDDSA)
<14>Feb 13 07:32:19 ec2: 256 SHA256:TSAG6d0/Leh17gdEvJvk67H16URJmhtS8BAH050gNUG root@reo-server (ED25519)
<14>Feb 13 07:32:19 ec2: 2048 SHA256:uHJWUUF6SUKVZP81q2nmHavJqJP/tH80uYUxXevJ2hA root@reo-server (RSA)
<14>Feb 13 07:32:19 ec2: -----END SSH HOST KEY FINGERPRINTS-----
-----BEGIN SSH HOST KEY KEYS-----
ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoYTItbmlzdHAyNTYAAAAIbmlZdHAyNTYAAABBB0+q6QJnbPcfbfV+INAeuvLcHEHBIX8Gpb0aR6xBugYIFk9fBogBQMKXGhhADkK4pF+Y0ecw92+t4aPuJ2wiBRi=
root@reo-server
ssh-ed25519 AAAAC3NzaC1lZD0iNTU5AAAAIEULvtZJJub0fxISY8lv2yagB1z03KqHnMGImUoiReJ root@reo-server
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCSMoeyaxZjP0evBGr4fNFfW13+AJs59zTTFb0gUSzf6EXk75HF+0t6BwOUBX/8ydz9TQ/N2PzxtVIV0cmbqZ72EmREBTFg3yH8A2SQ+FWyH0sk+rCpF2cqGt81
0IU3H3Iu18IVRzKkBPkTb3u2HnuJdPR+7TM22tugrkUkb19kVxrLVGqLJurJIKJMKZz+4Vgq8BwueumFskurmcT05HXmqowQSanINAP5Iay/E71AJ5KKHnu8JbhoESe5uJp1r2T0G8PmBURHAct50ry9S3dd
uB148uGGrfQm8XivHtLytXhFLZGdn77TmtSrb+MedKVos3k38XE/WeSasfR root@reo-server
-----END SSH HOST KEY KEYS-----
[ 24.319873] cloud-init[2247]: Cloud-init v. 18.4-7-g4652b196-0ubuntu1 running 'modules:final' at Thu, 13 Feb 2020 07:32:19 +0000. Up 24.21 seconds.
[ 24.319883] cloud-init[2247]: ci-info: no authorized ssh keys fingerprints found for user rshby.
[ 24.320041] cloud-init[2247]: Cloud-init v. 18.4-7-g4652b196-0ubuntu1 finished at Thu, 13 Feb 2020 07:32:19 +0000. DataSource DataSourceNoCloud [seed=/var/lib/cloud/seed/nocloud-net] [dsmode=net]. Up 24.31 seconds
[ OK ] Started Execute cloud user/final scripts.
[ OK ] Reached target Cloud-init target.
```

Di reboot dan tunggu sampai seperti ini.


```
[ OK ] Started Execute cloud user/final scripts.
[ OK ] Reached target Cloud-init target.

Ubuntu 18.10 reo-server tty1

reo-server login: ^[
```

Kemudian login.

```
root@reo-server:~#
ssh-ed25519 AAAAC3NzaC112DI1NTE5AAAAIEULvtZjU0fXISV8iv2yagBiz03WqHnMGImJoiReJ root@reo-server
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCsMoeyakZIpDevB0r4fNFfNI3+AI5S9zTTfb0gUSzf6EXk75hF+0t6Bw0UBX/8ydz9TQ/W2PzxtVIV0cmbq272EmREBTfg3yH8A
0IU3W3Iu1B1YRzKkBPkT63u2HnuJdPR+7TM22twgrkUkb19rkvxrLvGqLJwrJIKWJMKZz+4Vgq8BuwewmPsKurmvctD5XxmQwGQsanINAP5lay/E71AJ5KKHnu8jbhoESe5uJp1r
uB148WgGrfQm8xIvHTLyTX0hFLZGdn777MtSrb+KEdWYos3X38xE/MeSasfR root@reo-server
-----END SSH HOST KEY KEYS-----
[ 24.319873] cloud-init[2247]: Cloud-init v. 18.4-7-g4652b196-0ubuntu1 running 'modules:final' at Thu, 13 Feb 2020 07:32:19 +0000. Up 24.31 seconds
[ 24.319983] cloud-init[2247]: ci-info: no authorized ssh keys fingerprints found for user rshby.
[ 24.320041] cloud-init[2247]: Cloud-init v. 18.4-7-g4652b196-0ubuntu1 finished at Thu, 13 Feb 2020 07:32:19 +0000. DataSource DataSourceList
b/cloud/seed/nocloud-net [dsmode=net]. Up 24.31 seconds
[ OK ] Started Execute cloud user/final scripts.
[ OK ] Reached target Cloud-init target.

Ubuntu 18.10 reo-server tty1

reo-server login: rshby
Password:
Welcome to Ubuntu 18.10 (GNU/Linux 4.18.0-25-generic x86_64)

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

System information as of Thu Feb 13 07:34:36 UTC 2020

System load:  0.19           Processes:           199
Usage of /:   20.6% of 19.56GB Users logged in:     0
Memory usage: 24%           IP address for ens33: 192.168.116.129
Swap usage:   0%

183 packages can be updated.
106 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.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

rshby@reo-server:~$
```

Tampilan setelah login.

Sudo = super user do. supaya bisa akses lebih.

Cd = change directory, untuk pindah direktori.

Mkdir = membuat direktori baru.

Ls = menampilkan isi/apapun di dalam folder.

Cp = copy.

Mv = move atau mengubah nama file.

Rm = remove

Nano = text editor.

Apt = package manager, seperti uninstall program di windows yang di control panel.

Cat = kurang lebih sama kayak nano.

Berpindah akun ke root memakai **sudo su**, kalau ingin berpindah ke akun semula masukka perintah **exit**.

Untuk mengubah motd menggunakan motd **nano /etc/motd**. Maka akan keluar tampilan nano gui.



Kemudian setelah menulis, save dengan cara **ctrl+o** dan kemudian enter.

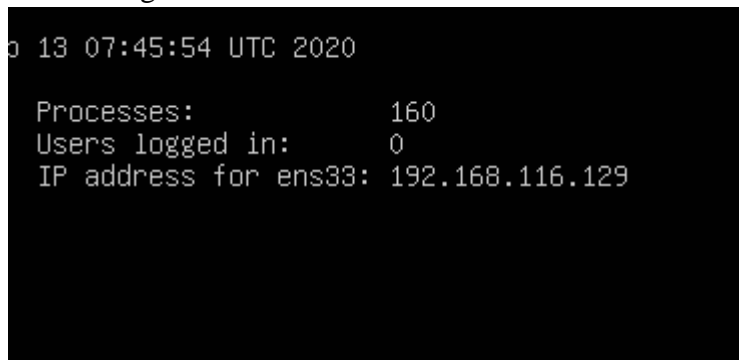
Untuk keluar dari text editor, ketikan **ctrl+x**.

Chown = change owner.

Chmod = change mode.

Menggunakan Remote Terminal : Putty

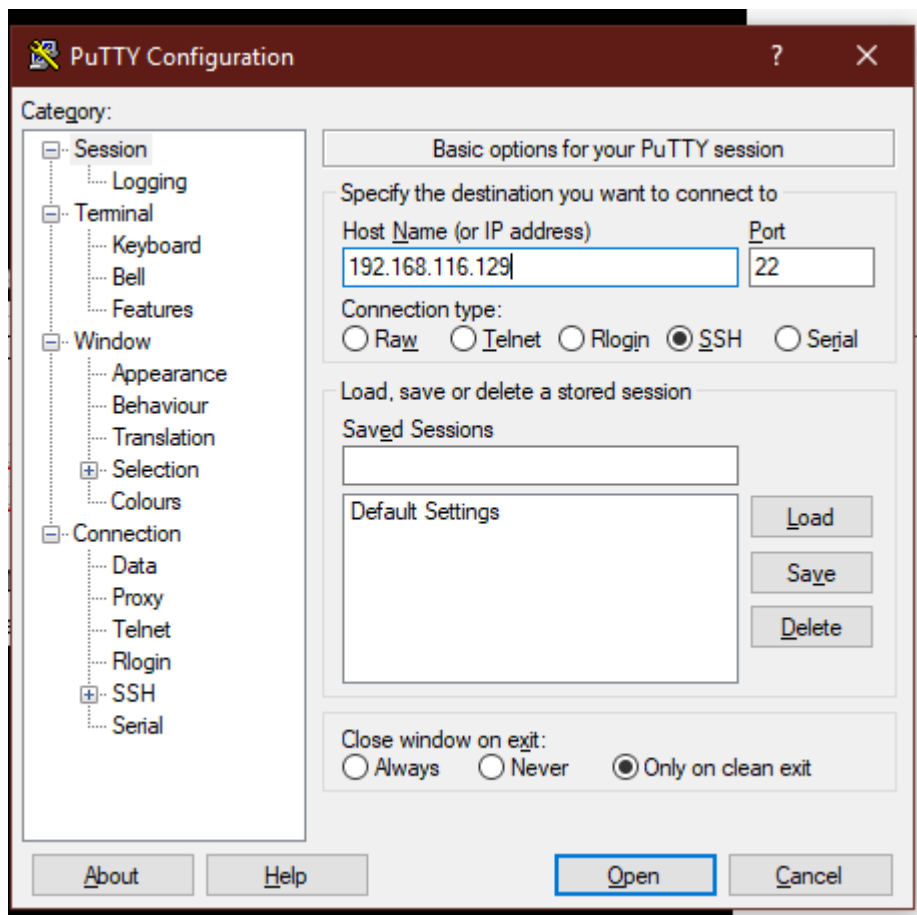
harus mengetahui IP alamat kita.



IP saya 192.168.116.129

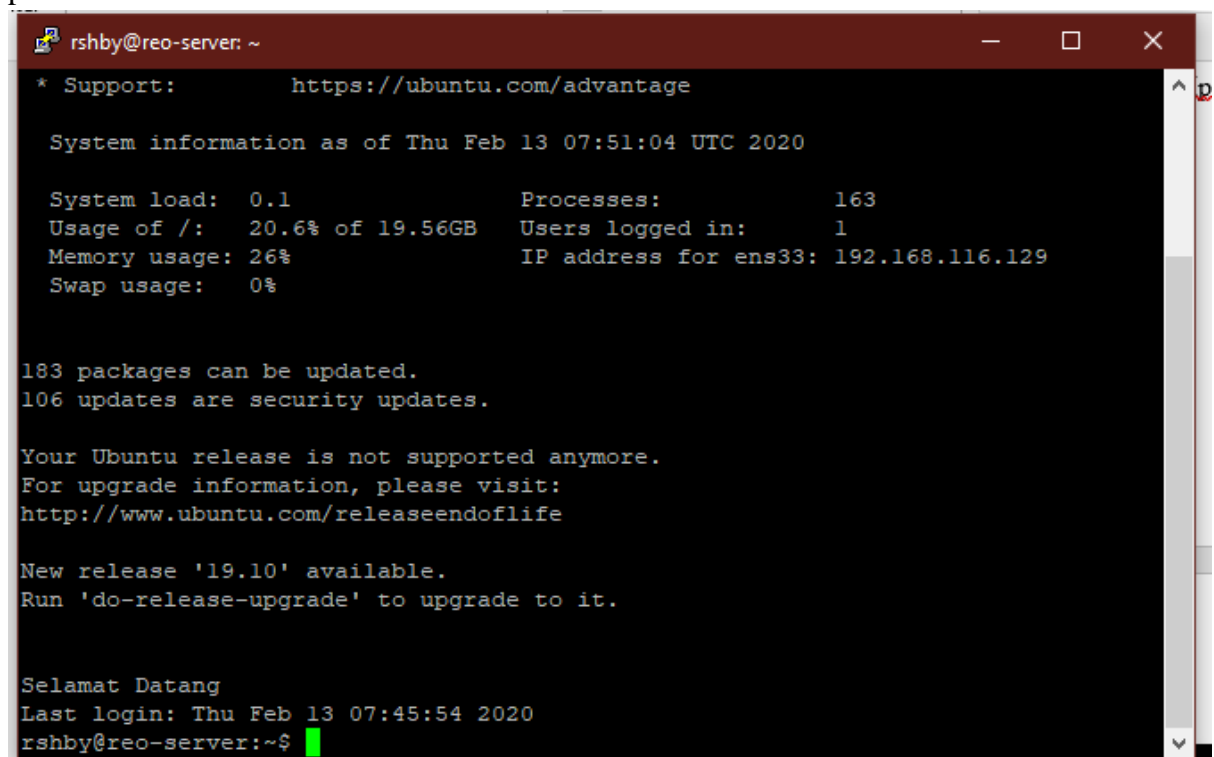
Kemudian cari aplikasi Putty

Masukkan Ip ke Dalam Putty itu.



Klik open.

Kemudian masuk ke dalam putty itu, kemudian login dengan username dan password ubuntu tadi.



Solat

1. Ls

```
Selamat Datang
Last login: Thu Feb 13 07:45:54 2020
rshby@reo-server:~$ ls
rshby@reo-server:~$
```

Ls digunakan untuk melihat isi dari folder tersebut. Kosong, karena belum ada isi apa apa.

2. Mkdir pertemuan-2

```
Selamat Datang
Last login: Thu Feb 13 07:45:54 2020
rshby@reo-server:~$ ls
rshby@reo-server:~$ mkdir pertemuan-2
rshby@reo-server:~$
```

Digunakan untuk membuat direktori atau membuat folder dengan nama pertemuan-2

3. Ls -l

```
Selamat Datang
Last login: Thu Feb 13 07:45:54 2020
rshby@reo-server:~$ ls
rshby@reo-server:~$ mkdir pertemuan-2
rshby@reo-server:~$ ls -l
total 4
drwxrwxr-x 2 rshby rshby 4096 Feb 13 07:55 pertemuan-2
rshby@reo-server:~$
```

Muncul isi dari direktori itu, muncul pertemuan-2 yang sudah kita buat tadi.

4. Cp-r pertemuan-2 pertemuan-1

```
rshby@reo-server:~$ mkdir pertemuan-2
rshby@reo-server:~$ ls -l
total 4
drwxrwxr-x 2 rshby rshby 4096 Feb 13 07:55 pertemuan-2
rshby@reo-server:~$ cp -r pertemuan-2 pertemuan-1
rshby@reo-server:~$
```

Digunakan untuk copy pertemuan-2 ke pertemuan 1

5. Ls, digunakan untuk melihat isi folder/direktori.

```
rshby@reo-server:~$ ls -l
total 4
drwxrwxr-x 2 rshby rshby 4096 Feb
rshby@reo-server:~$ cp -r pertemu
rshby@reo-server:~$ ls
pertemuan-1 pertemuan-2
rshby@reo-server:~$
```

Ada 2 isi yaitu pertemuan-1 dan pertemuan-2

6. Digunakan untuk mengubah nama file.

```
rshby@reo-server:~$ ls -l
total 4
drwxrwxr-x 2 rshby rshby 4096 Feb
rshby@reo-server:~$ cp -r pertemu
rshby@reo-server:~$ ls
pertemuan-1 pertemuan-2
rshby@reo-server:~$ mv pertemuan-
rshby@reo-server:~$
```

7. Ls digunakan untuk melihat isi direktori.

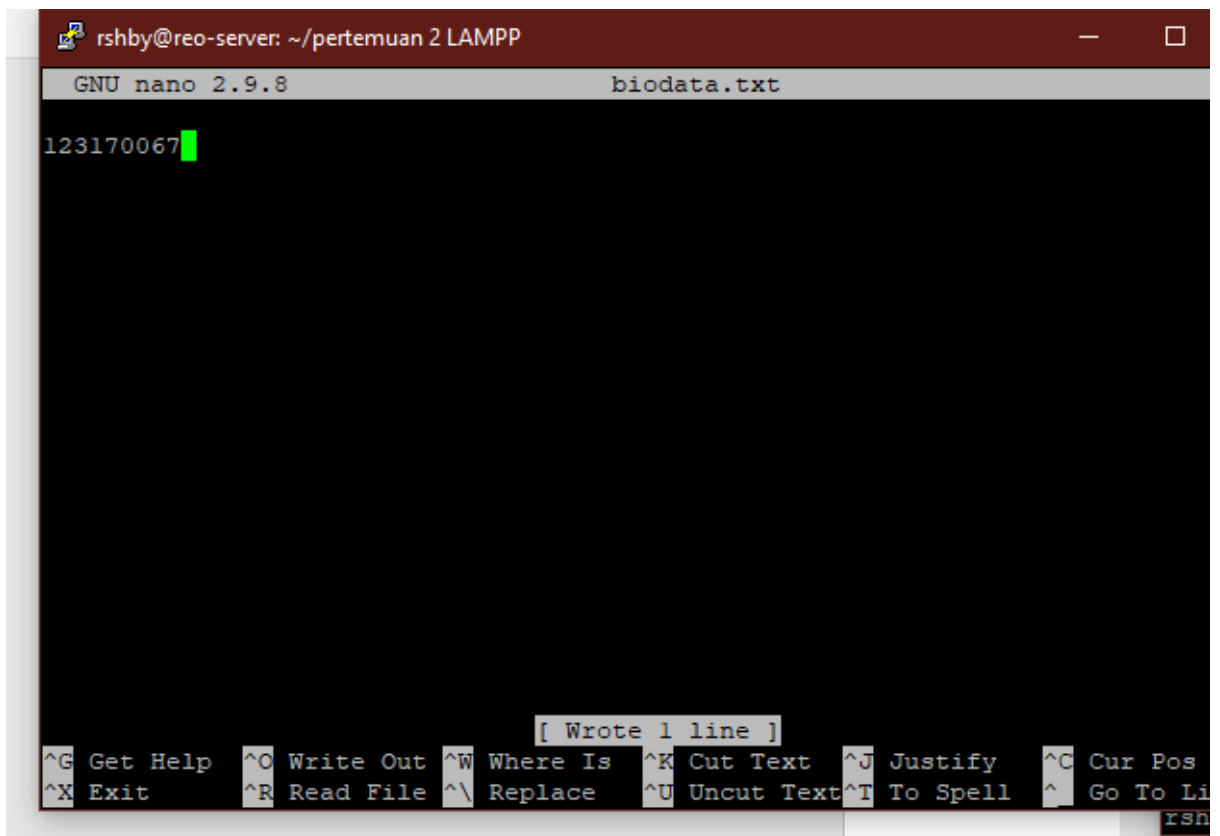
```
rshby@reo-server:~$ ls -l
total 4
drwxrwxr-x 2 rshby rshby 4096 Feb 13 07:55 pertemuan-2
rshby@reo-server:~$ cp -r pertemuan-2 pertemuan-1
rshby@reo-server:~$ ls
pertemuan-1 pertemuan-2
rshby@reo-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"
rshby@reo-server:~$ ls
pertemuan-1 'pertemuan 2 LAMPP'
rshby@reo-server:~$
```

Nama pertemuan 2 diganti dengan pertemuan 2 LAMPP

8. Digunakan untuk change direktori ke pertemuan-2

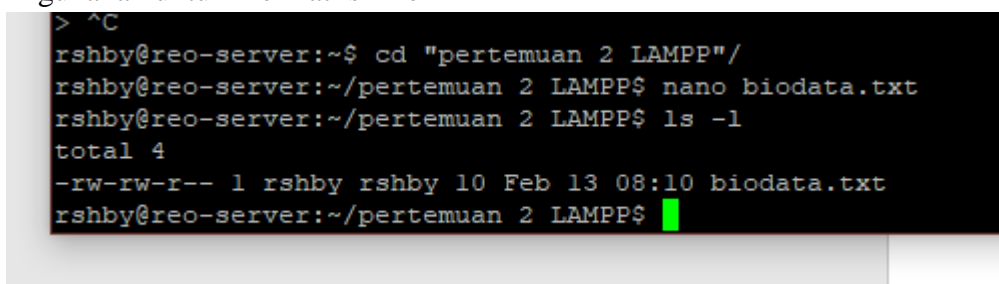
```
> ^C
rshby@reo-server:~$ cd "pertemuan 2
> ^C
rshby@reo-server:~$ cd "pertemuan 2
> ^C
rshby@reo-server:~$ cd "pertemuan 2 LAMPP"/
rshby@reo-server:~/pertemuan 2 LAMPP$
```

9. Nano biodata.txt digunakan untuk membuka nano dan membuat biodata.txt



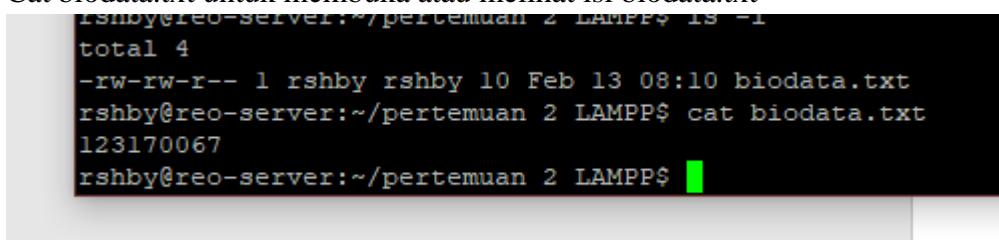
```
rshby@reo-server: ~/pertemuan 2 LAMPP
GNU nano 2.9.8 biodata.txt
123170067
[ Wrote 1 line ]
^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Spell  ^_ Go To Li
```

10. Digunakan untuk melihat isi file



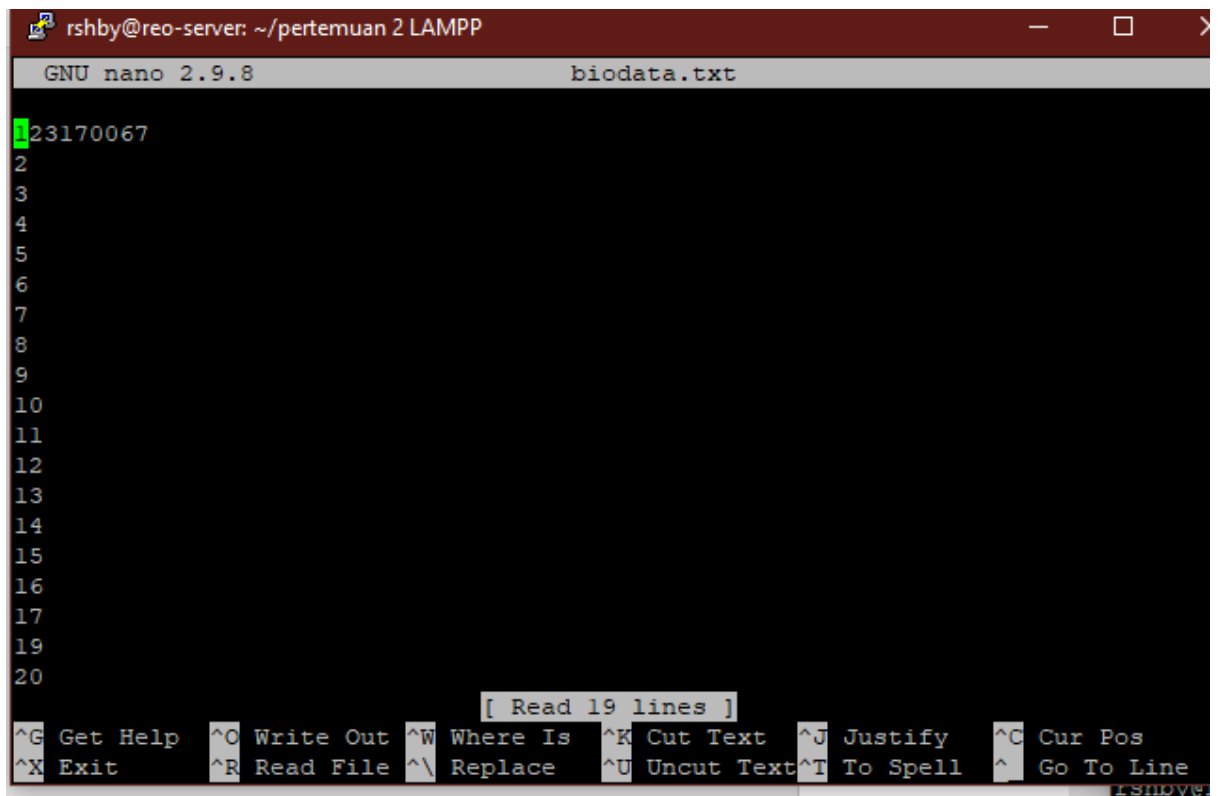
```
> ^C
rshby@reo-server:~$ cd "pertemuan 2 LAMPP"/
rshby@reo-server:~/pertemuan 2 LAMPP$ nano biodata.txt
rshby@reo-server:~/pertemuan 2 LAMPP$ ls -l
total 4
-rw-rw-r-- 1 rshby rshby 10 Feb 13 08:10 biodata.txt
rshby@reo-server:~/pertemuan 2 LAMPP$
```

11. Cat biodata.txt untuk membuka atau melihat isi biodata.txt



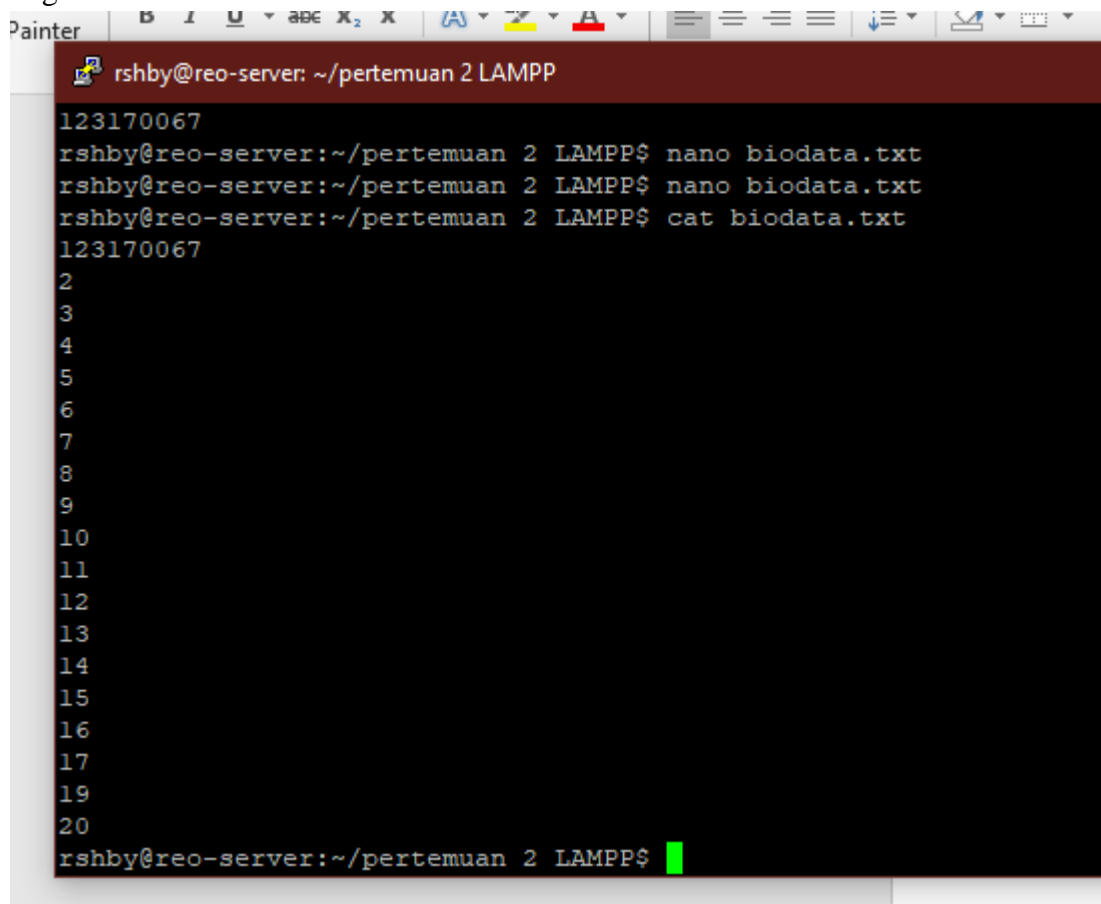
```
rshby@reo-server:~/pertemuan 2 LAMPP$ ls -l
total 4
-rw-rw-r-- 1 rshby rshby 10 Feb 13 08:10 biodata.txt
rshby@reo-server:~/pertemuan 2 LAMPP$ cat biodata.txt
123170067
rshby@reo-server:~/pertemuan 2 LAMPP$
```

12. Digunakan untuk membuka txt editor dan menyimpan dengan nama biodata.txt



```
rshby@reo-server: ~/pertemuan 2 LAMPP
GNU nano 2.9.8 biodata.txt
1 23170067
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
[ Read 19 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
```

13. Digunakan untuk melihat isi dari file biodata.txt



```
Painter
rshby@reo-server: ~/pertemuan 2 LAMPP
123170067
rshby@reo-server:~/pertemuan 2 LAMPP$ nano biodata.txt
rshby@reo-server:~/pertemuan 2 LAMPP$ nano biodata.txt
rshby@reo-server:~/pertemuan 2 LAMPP$ cat biodata.txt
123170067
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
rshby@reo-server:~/pertemuan 2 LAMPP$
```

14. Tail biodata.txt digunakan untuk melihat 10 data terakhir saja, ditampilkan 10 sampai 20, setiap baris 1 angka.

```
19  
20  
rshby@reo-server:~/pertemuan 2 LAMPP$ tail biodata.txt  
10  
11  
12  
13  
14  
15  
16  
17  
19  
20  
rshby@reo-server:~/pertemuan 2 LAMPP$
```