

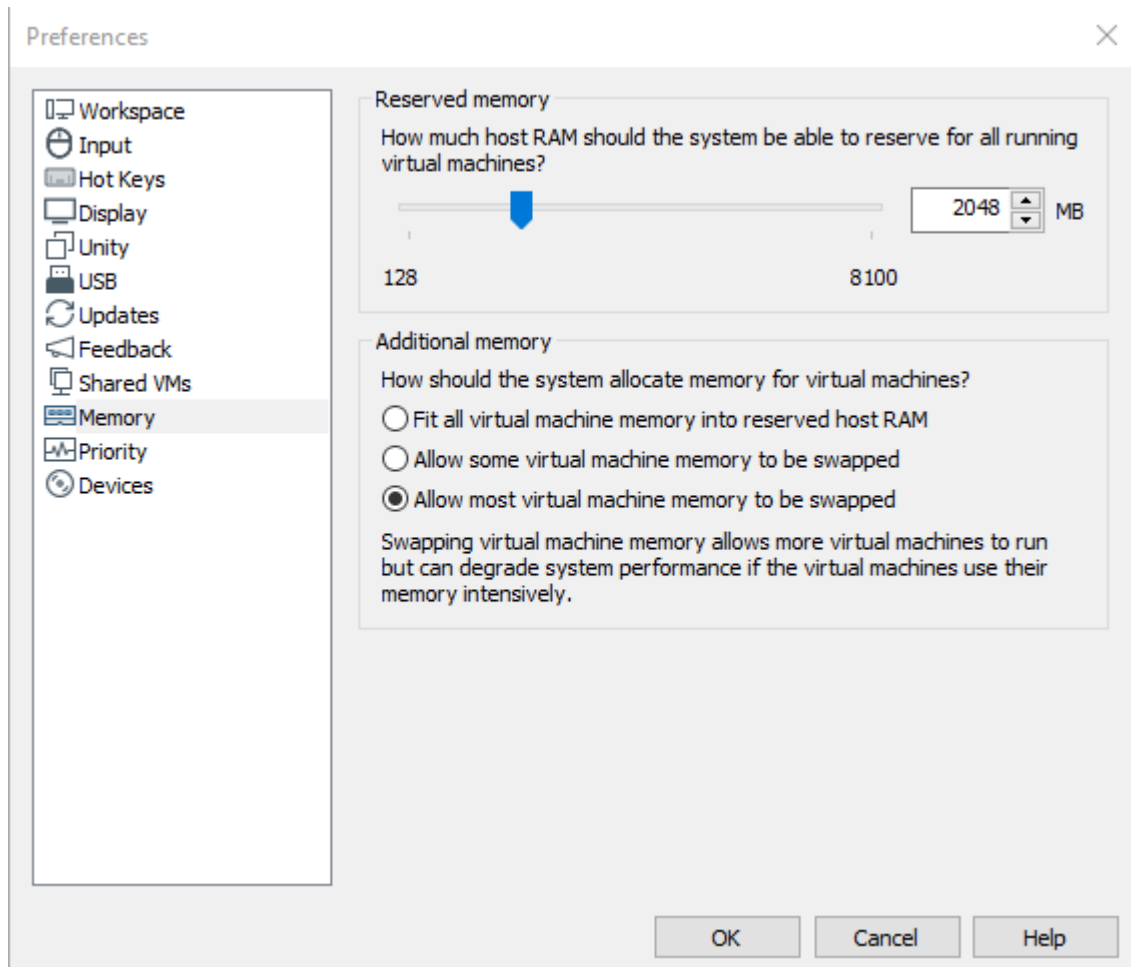
Avisena Rahman I./123170063

Pengenalan VMWare dan Linux OS

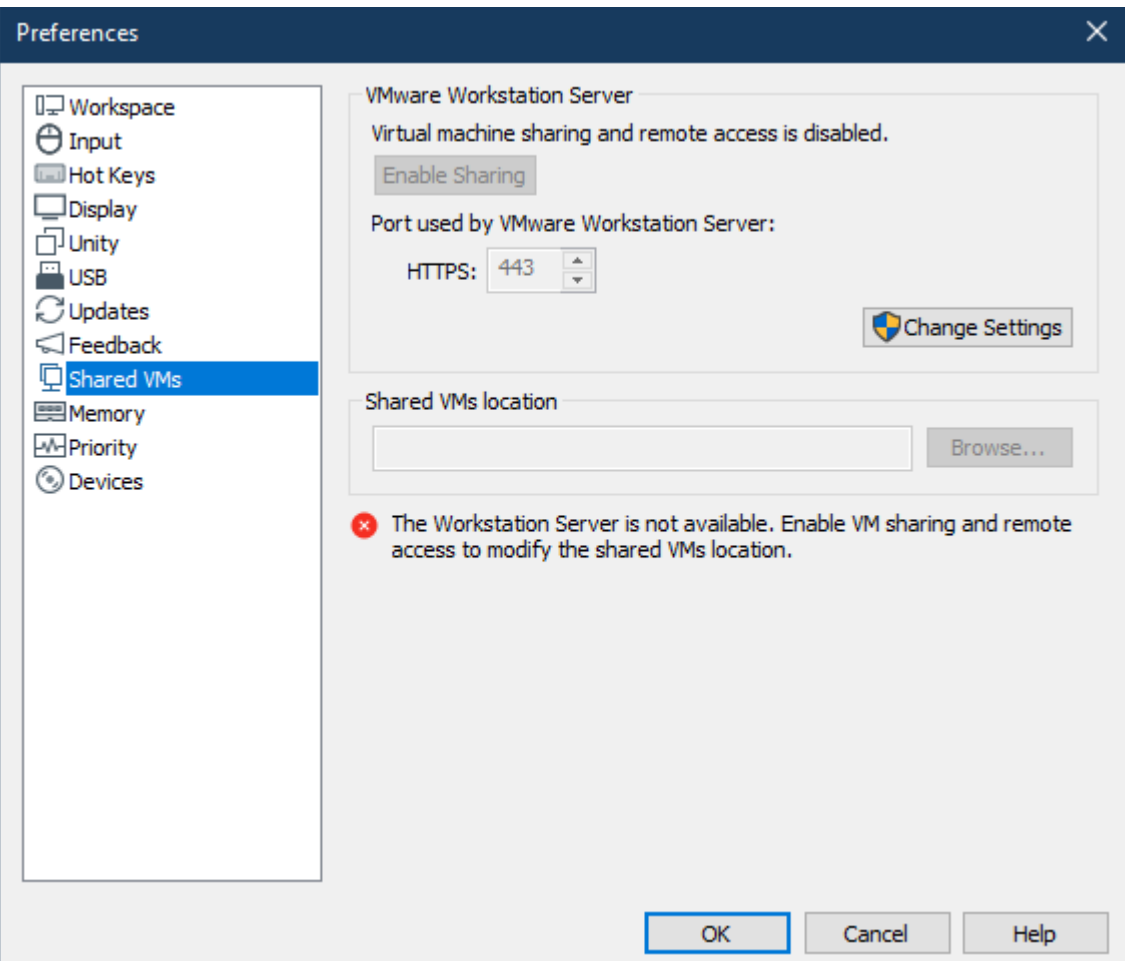
Layer hirarki OS:

1. Linux OS (VM1), Windows OS(VM2), Linux OS(VM3)
2. VMWare
3. OS PC Lab (Windows + Linux)
4. Serever hardware

Swapping RAM adalah menambah kapasitas RAM secara virtual agar virtual OS bisa berjalan

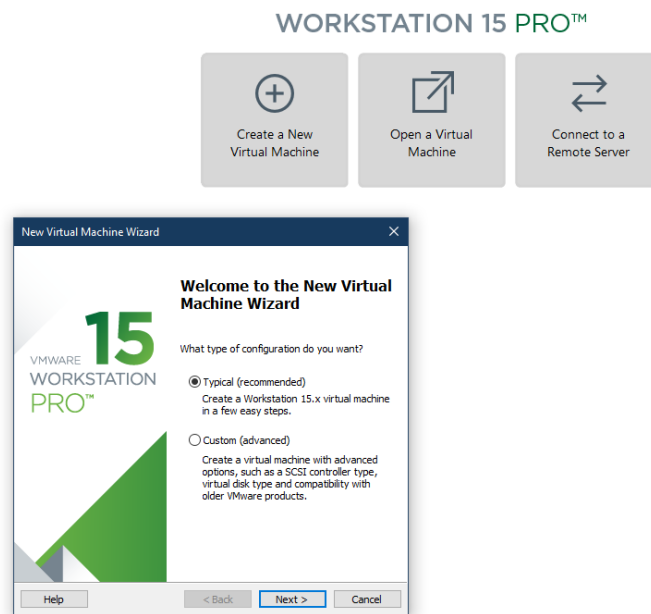


Agar port VMWare tidak bertabrakan dengan port XAMPP, kita harus disable sharing

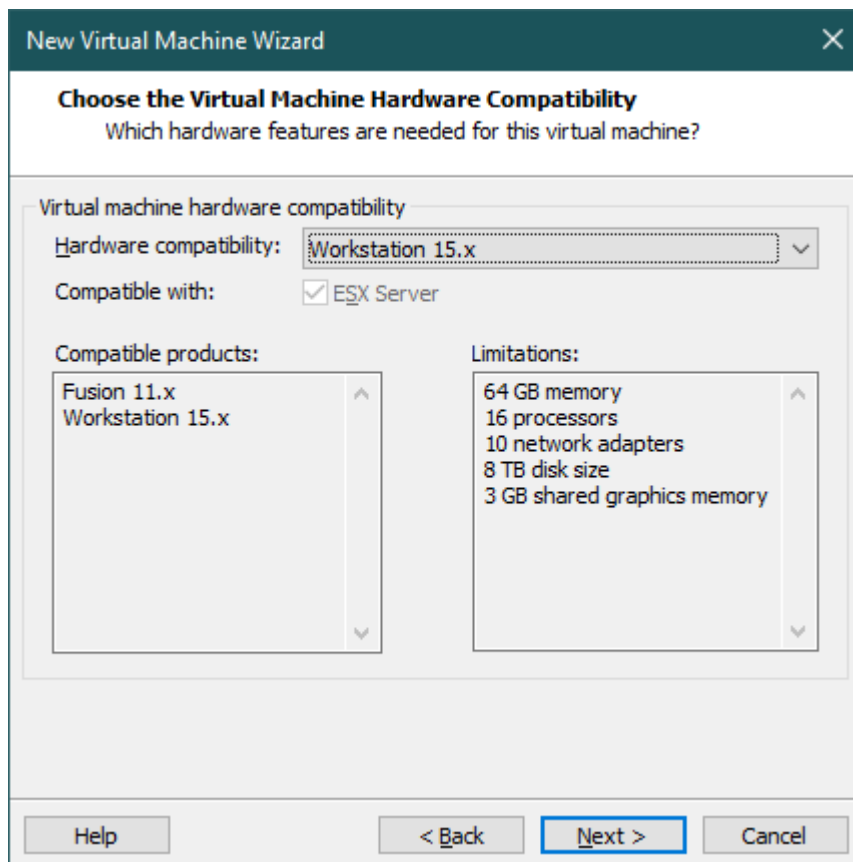


Untuk membuat VM baru, kita harus siapkan file master OSnya dahulu

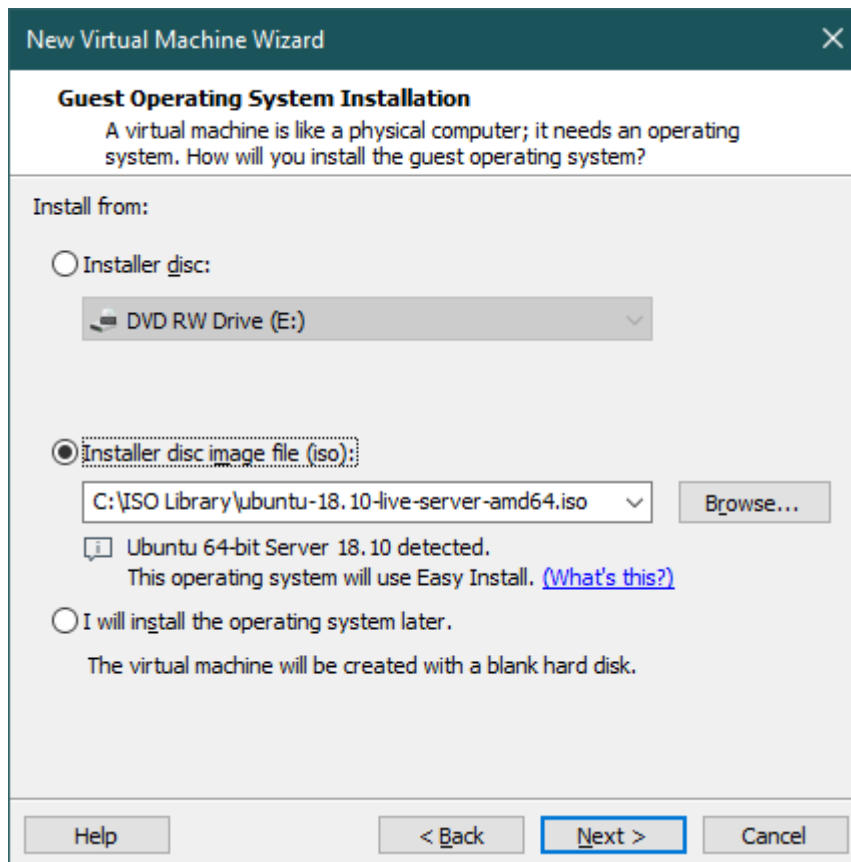
Untuk membuat VM baru di VMWare, klik new VM



Pilih custom lalu klik next



Pilih Workstation 15.x karena kita menggunakan OS yang telah mencukupi limitasinya. Jika menggunakan OS yang lebih tua, maka kita harus menurunkan kompatibilitasnya.



Pilih iso file OS yang telah disiapkan

Buat folder sesuai ketentuan

New Virtual Machine Wizard

Name the Virtual Machine
What name would you like to use for this virtual machine?

Virtual machine name:
Ubuntu LAMPP 123170063

Location:
D:\VM-123170063\Ubuntu LAMPP [Browse...](#)

The default location can be changed at Edit > Preferences.

< Back Next > Cancel

Pilih RAM VM, kita pilih 1gb RAM

New Virtual Machine Wizard

Memory for the Virtual Machine
How much memory would you like to use for this virtual machine?

Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.

Memory for this virtual machine: 1048 MB

64 GB -
32 GB -
16 GB -
8 GB -
4 GB -
2 GB -
1 GB -
512 MB -
256 MB -
128 MB -
64 MB -
32 MB -
16 MB -
8 MB -
4 MB -

Maximum recommended memory:
2 GB

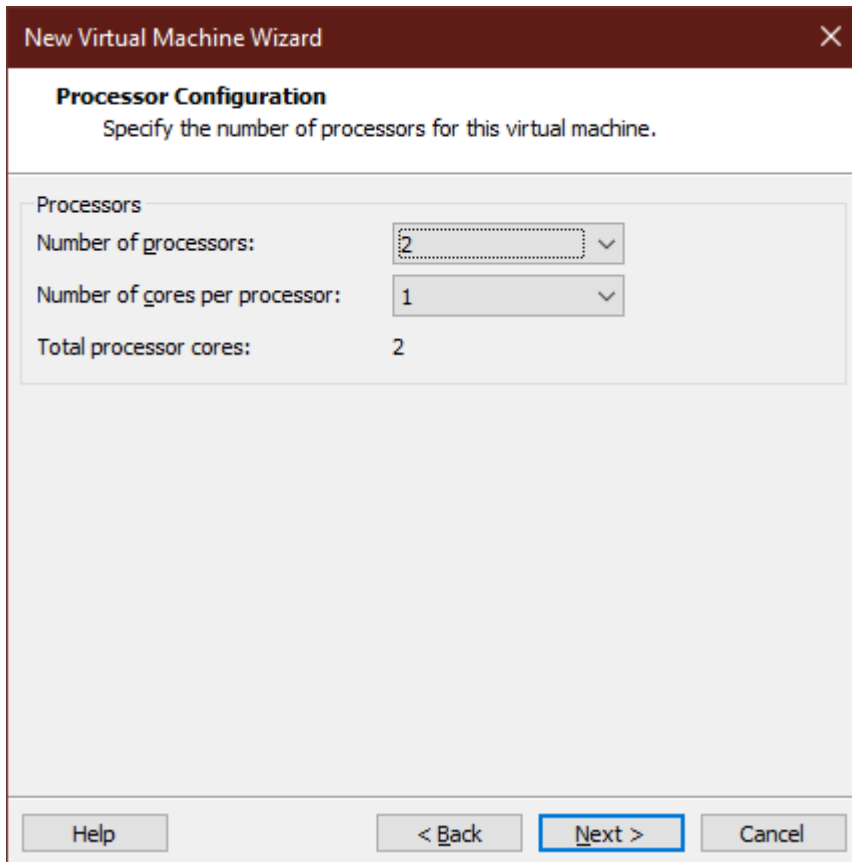
Recommended memory:
2 GB

Guest OS recommended minimum:
1 GB

Help < Back Next > Cancel

VM

Pilih prosesor. Pilih 2 processors dengan 1 core supaya balance tidak memberatkan PC dan



New Virtual Machine Wizard [X]

Processor Configuration
Specify the number of processors for this virtual machine.

Processors

Number of processors:	2
Number of cores per processor:	1
Total processor cores:	2

Help < Back **Next >** Cancel

Pilih IO logic LSI logic

New Virtual Machine Wizard ✕

Select I/O Controller Types
Which SCSI controller type would you like to use?

I/O controller types

SCSI Controller:

☐ BusLogic (Not available for 64-bit guests)

☒ LSI Logic (Recommended)

☐ LSI Logic SAS

Help < Back Next > Cancel

Untuk network type kita pilih NAT

New Virtual Machine Wizard

✕

Network Type
What type of network do you want to add?

Network connection

☐ Use bridged networking
Give the guest operating system direct access to an external Ethernet network. The guest must have its own IP address on the external network.

☒ Use network address translation (NAT)
Give the guest operating system access to the host computer's dial-up or external Ethernet network connection using the host's IP address.

☐ Use host-only networking
Connect the guest operating system to a private virtual network on the host computer.

☐ Do not use a network connection

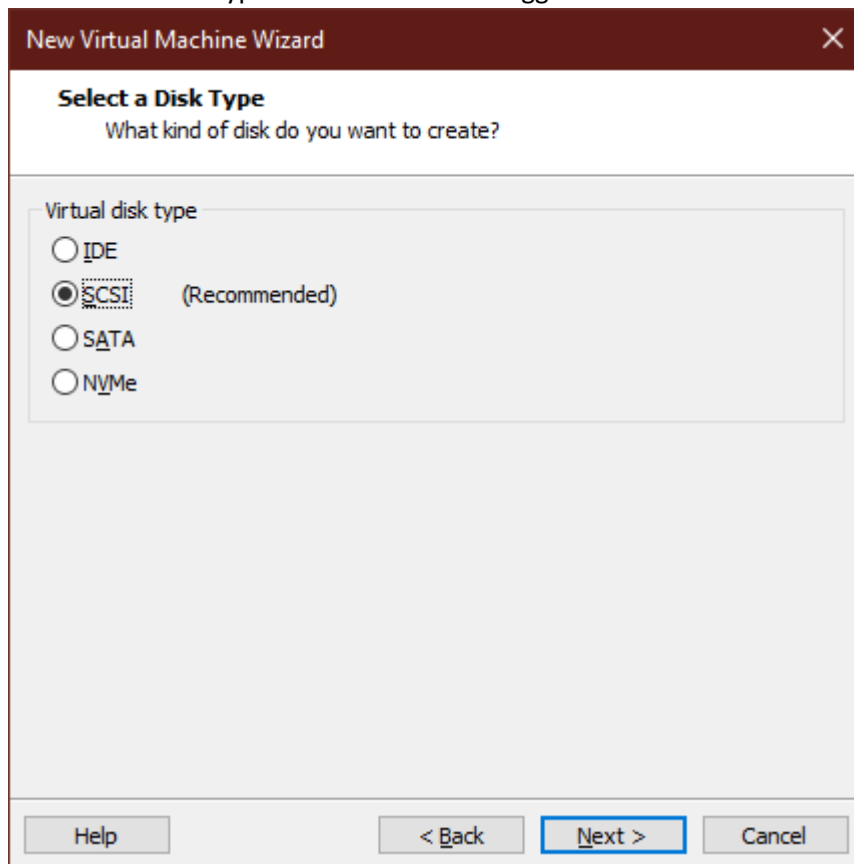
Help

< Back

Next >

Cancel

Pilih disk type SCSI ksrena kita menggunakan Ubuntu 18.



The image shows a screenshot of the 'New Virtual Machine Wizard' dialog box. The title bar is dark red with the text 'New Virtual Machine Wizard' and a close button (X). The main content area has a white background. At the top, it says 'Select a Disk Type' in bold, followed by the question 'What kind of disk do you want to create?'. Below this, there is a section titled 'Virtual disk type' with a light gray background. Inside this section, there are four radio button options: 'IDE', 'SCSI' (which is selected and has '(Recommended)' next to it), 'SATA', and 'NVMe'. At the bottom of the dialog box, there are four buttons: 'Help', '< Back', 'Next >' (which is highlighted with a blue border), and 'Cancel'.

New Virtual Machine Wizard

Select a Disk Type
What kind of disk do you want to create?

Virtual disk type

☐ IDE

☒ SCSI (Recommended)

☐ SATA

☐ NVMe

Help < Back Next > Cancel

Pilih create a new virtual disk

The image shows a screenshot of the 'New Virtual Machine Wizard' dialog box. The title bar is dark red with the text 'New Virtual Machine Wizard' and a close button (X). The main content area has a white background with the heading 'Select a Disk' and the question 'Which disk do you want to use?'. Below this, there is a section titled 'Disk' with three radio button options. The first option, 'Create a new virtual disk', is selected and has a dotted border. It includes a description: 'A virtual disk is composed of one or more files on the host file system, which will appear as a single hard disk to the guest operating system. Virtual disks can easily be copied or moved on the same host or between hosts.' The second option is 'Use an existing virtual disk' with the description 'Choose this option to reuse a previously configured disk.' The third option is 'Use a physical disk (for advanced users)' with the description 'Choose this option to give the virtual machine direct access to a local hard disk. Requires administrator privileges.' At the bottom of the dialog, there are four buttons: 'Help', '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a blue border.

New Virtual Machine Wizard

Select a Disk
Which disk do you want to use?

Disk

☒ Create a new virtual disk
A virtual disk is composed of one or more files on the host file system, which will appear as a single hard disk to the guest operating system. Virtual disks can easily be copied or moved on the same host or between hosts.

☐ Use an existing virtual disk
Choose this option to reuse a previously configured disk.

☐ Use a physical disk (for advanced users)
Choose this option to give the virtual machine direct access to a local hard disk. Requires administrator privileges.

Help < Back Next > Cancel

Pilih split multiple files agar memudahkan migrasi data

New Virtual Machine Wizard

Specify Disk Capacity

How large do you want this disk to be?

Maximum disk size (GB):

Recommended size for Ubuntu 64-bit: 20 GB

☐ Allocate all disk space now.

Allocating the full capacity can enhance performance but requires all of the physical disk space to be available right now. If you do not allocate all the space now, the virtual disk starts small and grows as you add data to it.

☐ Store virtual disk as a single file

☒ Split virtual disk into multiple files

Splitting the disk makes it easier to move the virtual machine to another computer but may reduce performance with very large disks.

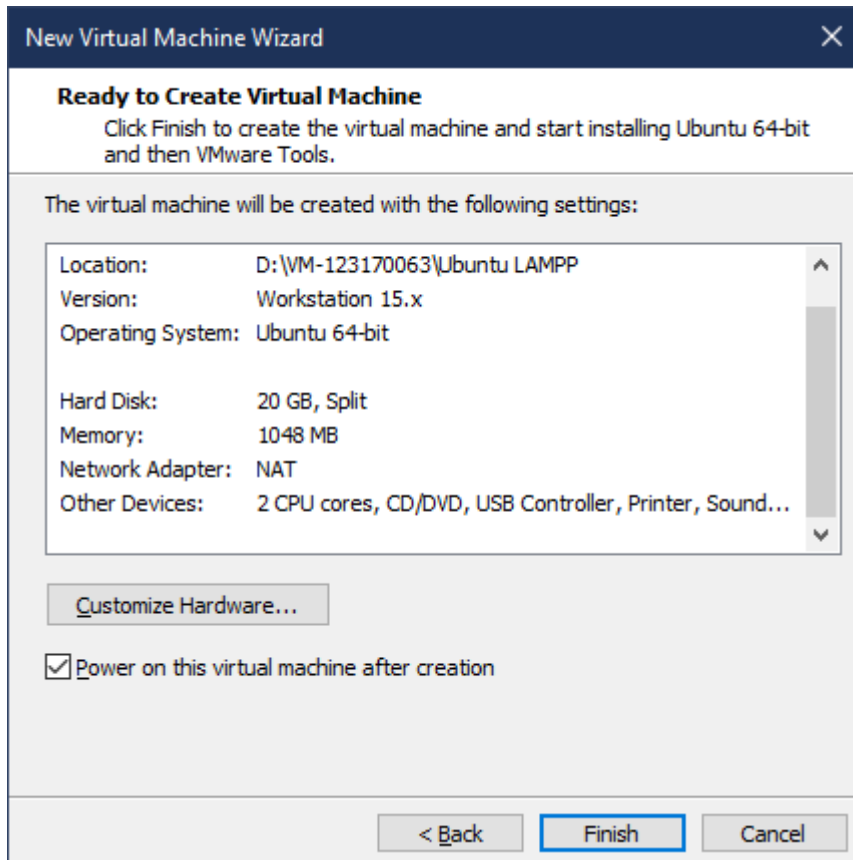
Help

< Back

Next >

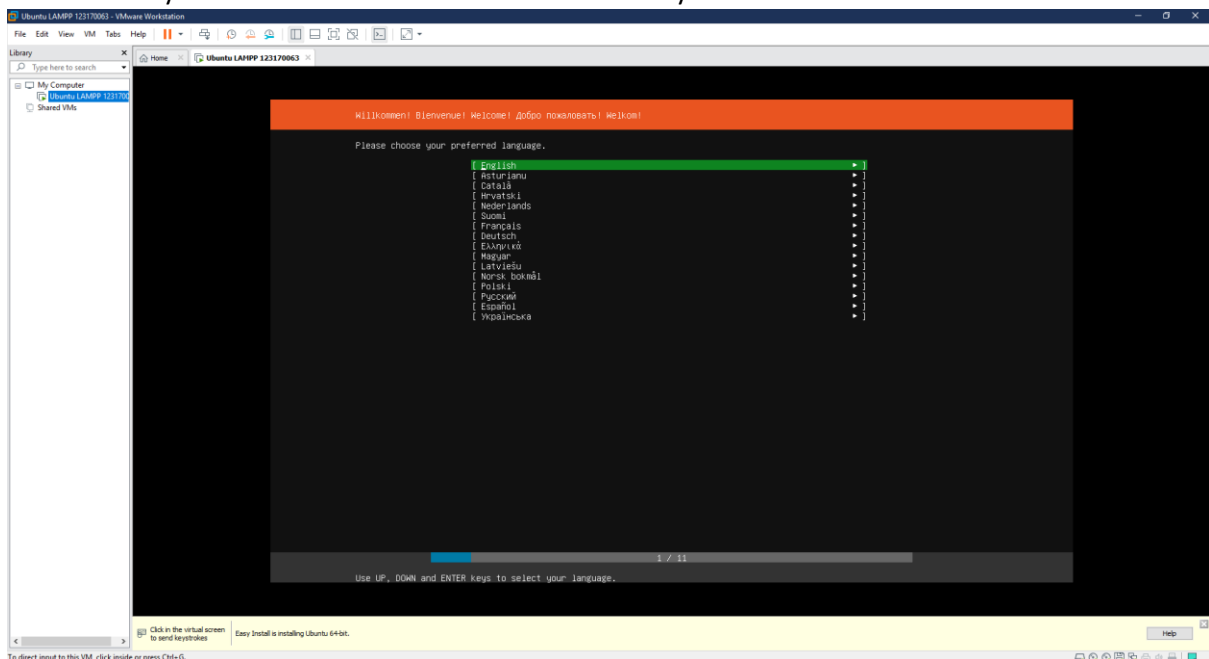
Cancel

Review terakhir dari hasil custom kita. Klik finish untuk create VM

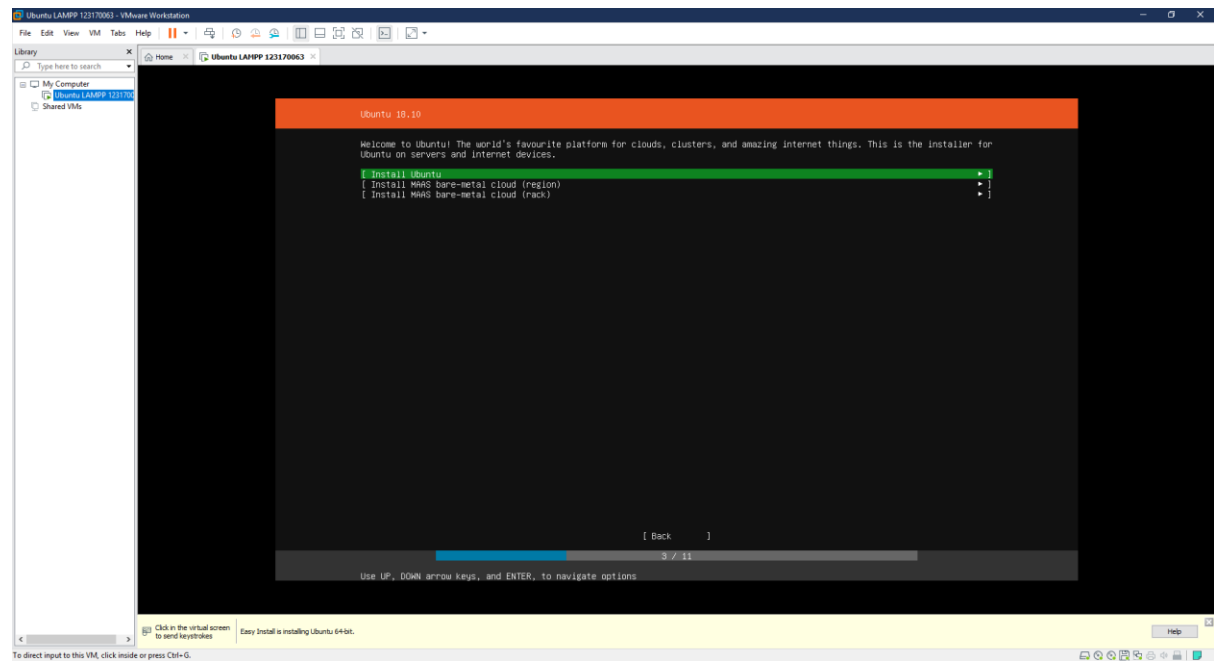


Arahkan cursor ke layar VM lalu gunakan keyboard untuk kontrol. Atau gunakan ctrl+G

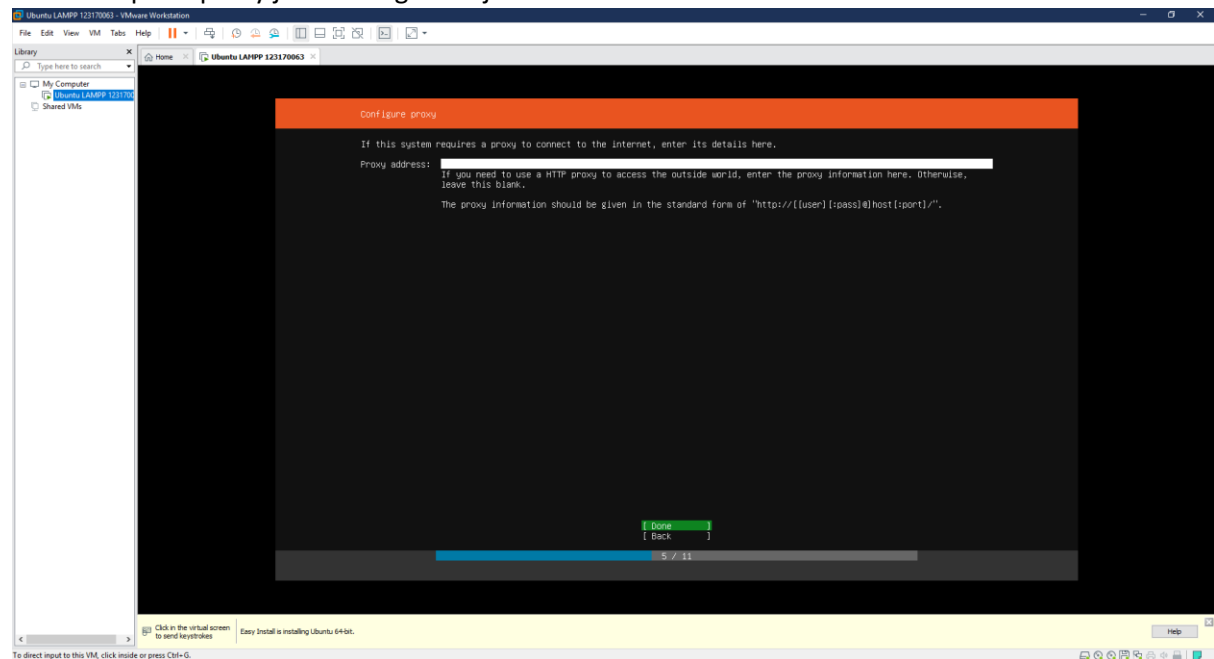
Untuk masuk kontrol VM dan ctrl+alt untuk keluar kontrol VM



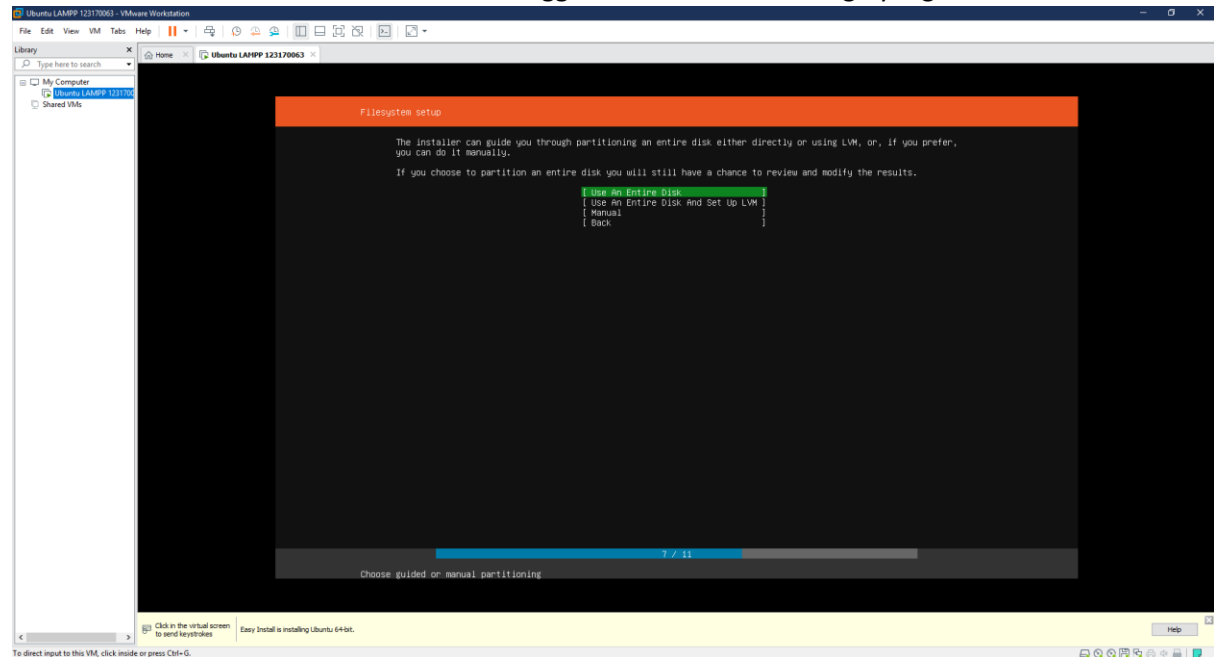
Pilih install Ubuntu



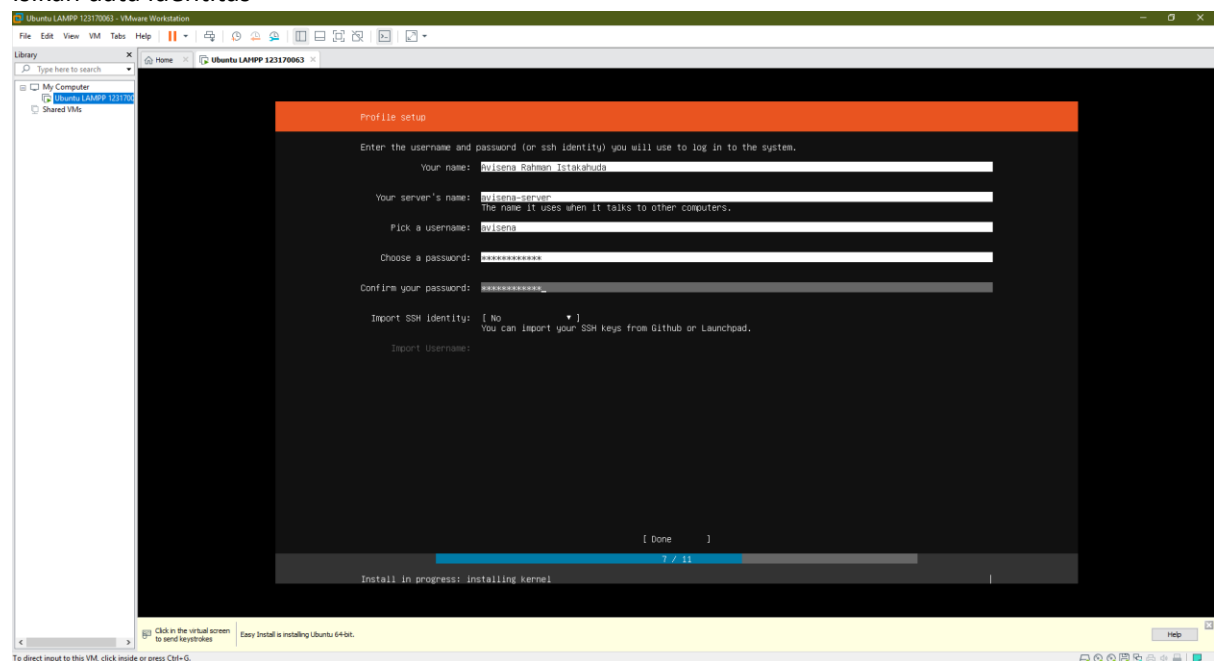
Kitat idak perlu proxy jadi kosongkan saja



Pilih use an entire disk karena kita akan menggunakan seluruh disk 20gb yang telah kita buat

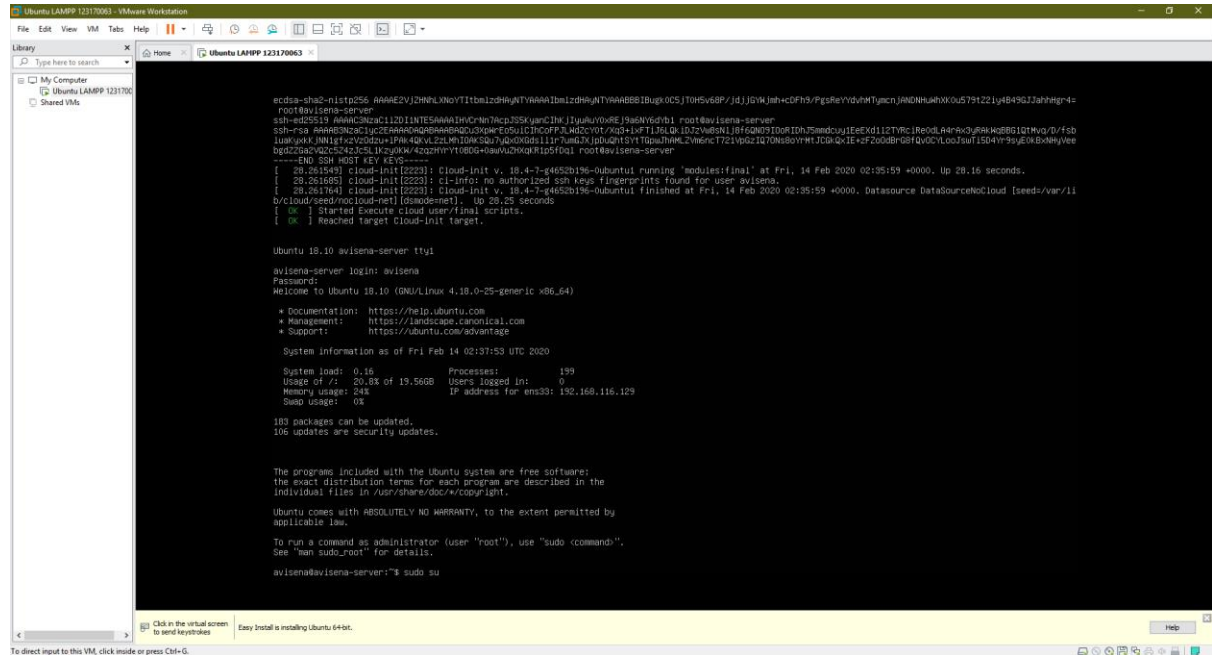


Isikan data identitas



Pilih reboot now setelah itu reset

Masukkan sudo su untuk masuk akses root/superuser untuk instalasi aplikasi



```
ecdsa-sha2-nistp256 AAAE2VJZHNhLnV1T1b1ZdHhYTYAAABIm1ZdHhYTYAAABBBIBupOC5JTOH5v6BP/JdJJGhWJsh+cDFH5/PgsReYyduhTYmncjWdNNAhXW0U579122LyH496GJjhhgr4=
root@avisena-server:~#
ssh-ed25519 AAAAC3NzaC1lZD01NTESAAAABmVn7Kcp25KxanCJhJiuhUv0REJ9a6Mv6db1 root@avisena-server
ssh-rsa AAAAB3NzaC1yc2EAAAQAQABAAQDAQXpW+E05U1C3OCFFJLAD2CV0T/Xq3+1xPT1J6LQ107zV68N1J8f6Q09T08R10H75mduuyIEeXdl12TVRcIReDLaarx3yRakW88B1QTHvq/D/fsb
IuakjKJm1g+c2V0Zdu+IPW4KVLZLMh10K5Q7y6w0XGd111r7um6JXjbbqHtSV1T0pWJhML2V6ncT721VpGzIQ70N80YH1JdGQXzE+2F200BfSGfQvOCVLoosuf1504Vf9y9yE0K8XNhyVee
bgd2Sa9Q2C5k2x25Lk2gukW42ozmVY1T0G0+HawU2QxqR1p5f0q1 root@avisena-server
-----END SSH HOST KEY KEYS-----
[ 28.261549] cloud-init[2223]: Cloud-init v. 18.4-7-g4652b196-ubuntul running 'modules:final' at Fri, 14 Feb 2020 02:35:59 +0000. Up 20.16 seconds.
[ 28.261685] cloud-init[2223]: ci-info: no authorized ssh keys fingerprints found for user avisena.
[ 28.261764] cloud-init[2223]: Cloud-init v. 18.4-7-g4652b196-ubuntul finished at Fri, 14 Feb 2020 02:35:59 +0000. DataSource DataSourceNoCloud [seed:/var/lib/cloud/seed/nocloud-net] (ds:nocloud-net). Up 20.25 seconds
[ OK ] Started Execute cloud user/final scripts.
[ OK ] Reached target Cloud-Init target.

Ubuntu 18.10 avisena-server tty1
avisena-server login: avisena
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 Fri Feb 14 02:37:53 UTC 2020

System load:  0.16                       Processes:    199
Usage of /:   20.8% 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.

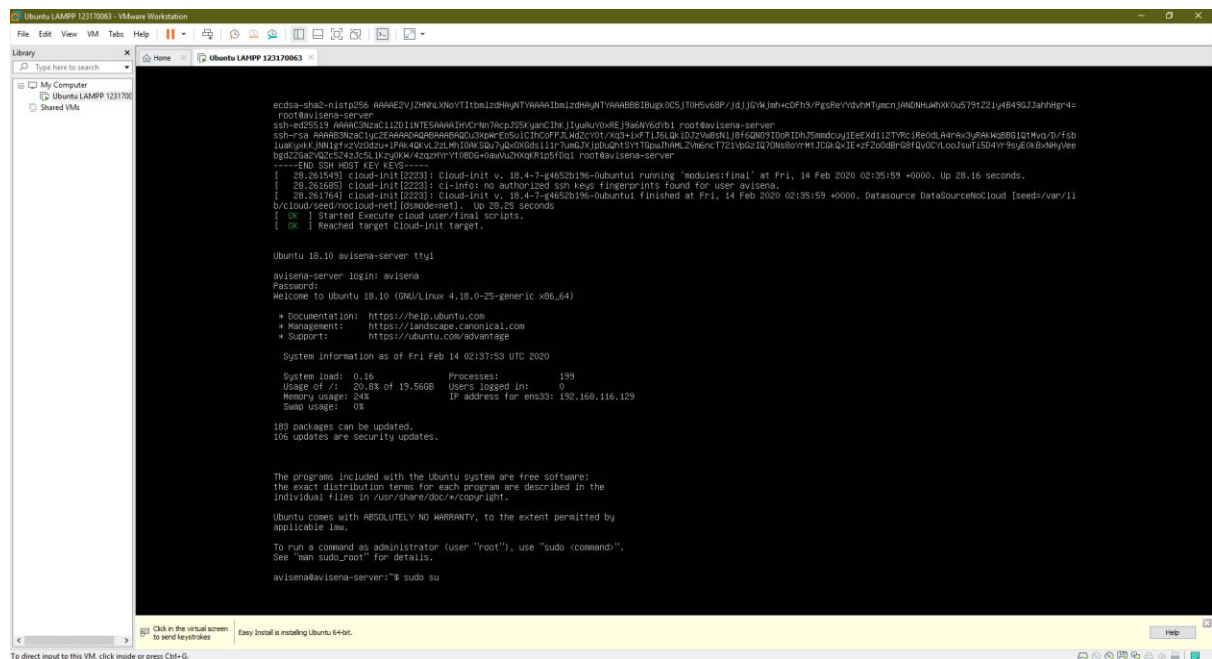
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

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

avisena@avisena-server:~$ sudo su
```

Masukkan nano /etc/motd untuk masuk ke Nano(notepadnya Ubuntu)

Masukkan pesan lalu klik ctrl+O untuk save. Ketik direktori file lalu ctrl+X untuk kembali ke akun utama



```
ecdsa-sha2-nistp256 AAAE2VJZHNhLnV1T1b1ZdHhYTYAAABIm1ZdHhYTYAAABBBIBupOC5JTOH5v6BP/JdJJGhWJsh+cDFH5/PgsReYyduhTYmncjWdNNAhXW0U579122LyH496GJjhhgr4=
root@avisena-server:~#
ssh-ed25519 AAAAC3NzaC1lZD01NTESAAAABmVn7Kcp25KxanCJhJiuhUv0REJ9a6Mv6db1 root@avisena-server
ssh-rsa AAAAB3NzaC1yc2EAAAQAQABAAQDAQXpW+E05U1C3OCFFJLAD2CV0T/Xq3+1xPT1J6LQ107zV68N1J8f6Q09T08R10H75mduuyIEeXdl12TVRcIReDLaarx3yRakW88B1QTHvq/D/fsb
IuakjKJm1g+c2V0Zdu+IPW4KVLZLMh10K5Q7y6w0XGd111r7um6JXjbbqHtSV1T0pWJhML2V6ncT721VpGzIQ70N80YH1JdGQXzE+2F200BfSGfQvOCVLoosuf1504Vf9y9yE0K8XNhyVee
bgd2Sa9Q2C5k2x25Lk2gukW42ozmVY1T0G0+HawU2QxqR1p5f0q1 root@avisena-server
-----END SSH HOST KEY KEYS-----
[ 28.261549] cloud-init[2223]: Cloud-init v. 18.4-7-g4652b196-ubuntul running 'modules:final' at Fri, 14 Feb 2020 02:35:59 +0000. Up 20.16 seconds.
[ 28.261685] cloud-init[2223]: ci-info: no authorized ssh keys fingerprints found for user avisena.
[ 28.261764] cloud-init[2223]: Cloud-init v. 18.4-7-g4652b196-ubuntul finished at Fri, 14 Feb 2020 02:35:59 +0000. DataSource DataSourceNoCloud [seed:/var/lib/cloud/seed/nocloud-net] (ds:nocloud-net). Up 20.25 seconds
[ OK ] Started Execute cloud user/final scripts.
[ OK ] Reached target Cloud-Init target.

Ubuntu 18.10 avisena-server tty1
avisena-server login: avisena
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

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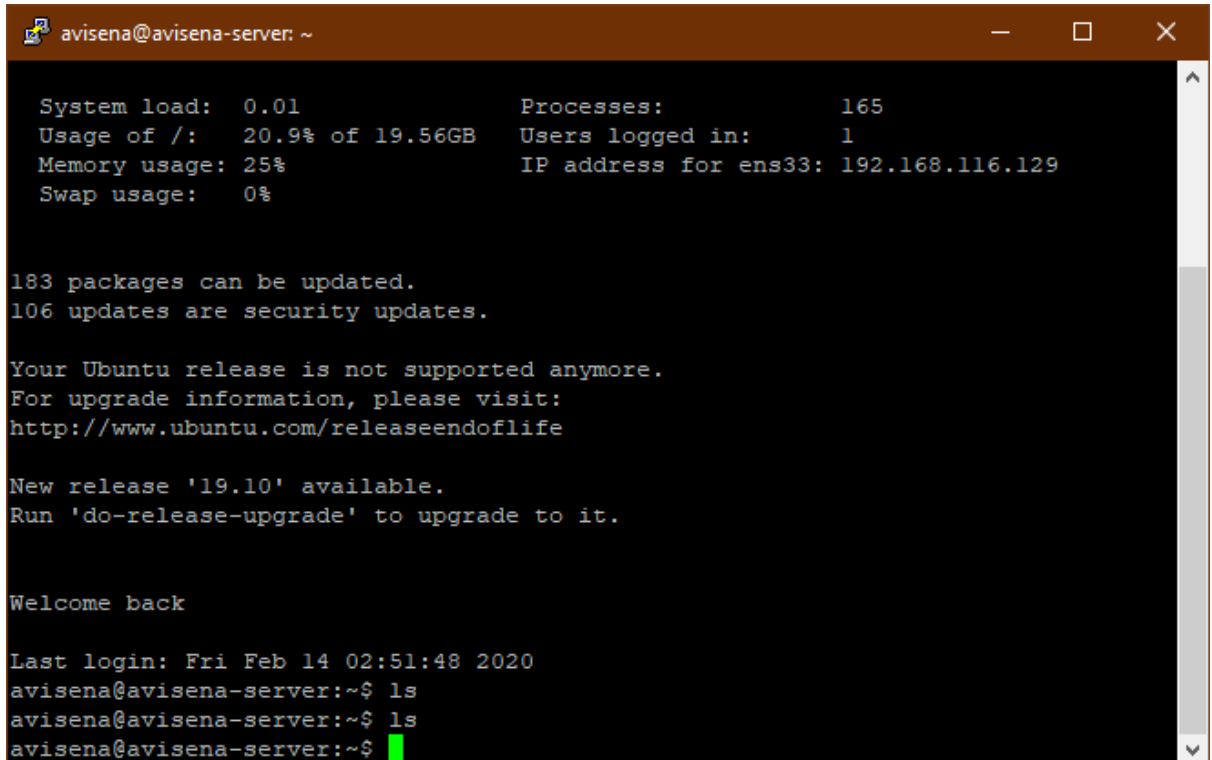
To run a command as administrator (user "root"), use "sudo ".
See "man sudo_root" for details.

avisena@avisena-server:~$ sudo su
```

Cara menggunakan remote terminal adalah menggunakan Putty di Windows, masukkan IP Ubuntu, lalu login sesuai akun Ubuntu.

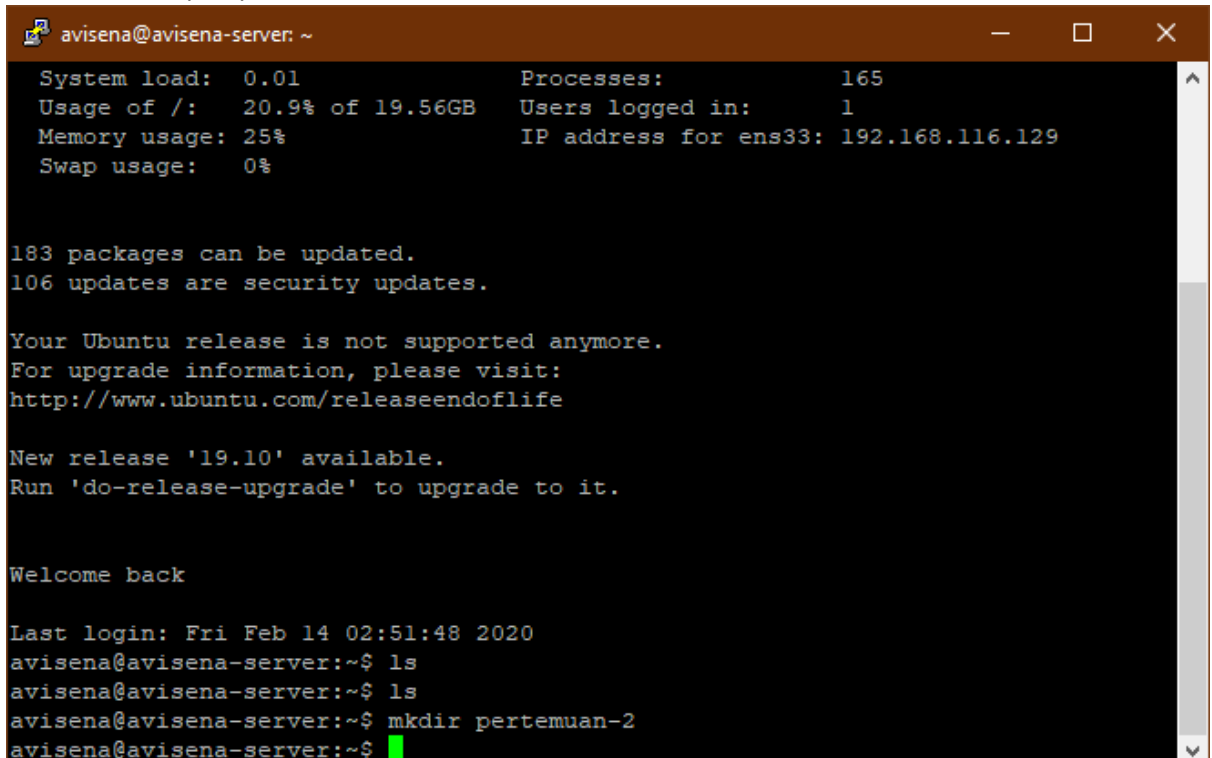
Eksplorasi Command Dasar pada Ubuntu OS

1. Tidak muncul apa-apa



```
avisena@avisena-server: ~  
  
System load:  0.01          Processes:           165  
Usage of /:   20.9% of 19.56GB Users logged in:      1  
Memory usage: 25%          IP address for ens33: 192.168.116.129  
Swap usage:   0%  
  
183 packages can be updated.  
106 updates are security updates.  
  
Your Ubuntu release is not supported anymore.  
For upgrade information, please visit:  
http://www.ubuntu.com/releaseendoflife  
  
New release '19.10' available.  
Run 'do-release-upgrade' to upgrade to it.  
  
Welcome back  
  
Last login: Fri Feb 14 02:51:48 2020  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$
```

2. Tidak muncul apa-apa



```
avisena@avisena-server: ~  
  
System load:  0.01          Processes:           165  
Usage of /:   20.9% of 19.56GB Users logged in:      1  
Memory usage: 25%          IP address for ens33: 192.168.116.129  
Swap usage:   0%  
  
183 packages can be updated.  
106 updates are security updates.  
  
Your Ubuntu release is not supported anymore.  
For upgrade information, please visit:  
http://www.ubuntu.com/releaseendoflife  
  
New release '19.10' available.  
Run 'do-release-upgrade' to upgrade to it.  
  
Welcome back  
  
Last login: Fri Feb 14 02:51:48 2020  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ mkdir pertemuan-2  
avisena@avisena-server:~$
```

3. Keluar seperti ini:

```
avisena@avisena-server: ~  
  
183 packages can be updated.  
106 updates are security updates.  
  
Your Ubuntu release is not supported anymore.  
For upgrade information, please visit:  
http://www.ubuntu.com/releaseendoflife  
  
New release '19.10' available.  
Run 'do-release-upgrade' to upgrade to it.  
  
Welcome back  
  
Last login: Fri Feb 14 02:51:48 2020  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ mkdir pertemuan-2  
avisena@avisena-server:~$ ls-l  
ls-l: command not found  
avisena@avisena-server:~$ ls -l  
total 4  
drwxrwxr-x 2 avisena avisena 4096 Feb 14 02:59 pertemuan-2  
avisena@avisena-server:~$
```

4. Tidak muncul apa-apa

```
avisena@avisena-server: ~  
  
For upgrade information, please visit:  
http://www.ubuntu.com/releaseendoflife  
  
New release '19.10' available.  
Run 'do-release-upgrade' to upgrade to it.  
  
Welcome back  
  
Last login: Fri Feb 14 02:51:48 2020  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ mkdir pertemuan-2  
avisena@avisena-server:~$ ls-l  
ls-l: command not found  
avisena@avisena-server:~$ ls -l  
total 4  
drwxrwxr-x 2 avisena avisena 4096 Feb 14 02:59 pertemuan-2  
avisena@avisena-server:~$ cp -r pertemuan-2 pertemuan-1  
avisena@avisena-server:~$ cp -r pertemuan-2pertemuan-1  
cp: missing destination file operand after 'pertemuan-2pertemuan-1'  
Try 'cp --help' for more information.  
avisena@avisena-server:~$ cp -r pertemuan-1 pertemuan-2  
avisena@avisena-server:~$
```

5. Muncul pertemuan-1 dan pertemuan-2

```
avisena@avisena-server: ~  
New release '19.10' available.  
Run 'do-release-upgrade' to upgrade to it.  
  
Welcome back  
  
Last login: Fri Feb 14 02:51:48 2020  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ mkdir pertemuan-2  
avisena@avisena-server:~$ ls-l  
ls-l: command not found  
avisena@avisena-server:~$ ls -l  
total 4  
drwxrwxr-x 2 avisena avisena 4096 Feb 14 02:59 pertemuan-2  
avisena@avisena-server:~$ cp -r pertemuan-2 pertemuan-1  
avisena@avisena-server:~$ cp -r pertemuan-2pertemuan-1  
cp: missing destination file operand after 'pertemuan-2pertemuan-1'  
Try 'cp --help' for more information.  
avisena@avisena-server:~$ cp -r pertemuan-1 pertemuan-2  
avisena@avisena-server:~$ ls  
pertemuan-1 pertemuan-2  
avisena@avisena-server:~$
```

6. Tidak terjadi apa-apa

```
avisena@avisena-server: ~  
New release '19.10' available.  
Run 'do-release-upgrade' to upgrade to it.  
  
Welcome back  
  
Last login: Fri Feb 14 02:51:48 2020  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ mkdir pertemuan-2  
avisena@avisena-server:~$ ls-l  
ls-l: command not found  
avisena@avisena-server:~$ ls -l  
total 4  
drwxrwxr-x 2 avisena avisena 4096 Feb 14 02:59 pertemuan-2  
avisena@avisena-server:~$ cp -r pertemuan-2 pertemuan-1  
avisena@avisena-server:~$ cp -r pertemuan-2pertemuan-1  
cp: missing destination file operand after 'pertemuan-2pertemuan-1'  
Try 'cp --help' for more information.  
avisena@avisena-server:~$ cp -r pertemuan-1 pertemuan-2  
avisena@avisena-server:~$ ls  
pertemuan-1 pertemuan-2  
avisena@avisena-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"  
avisena@avisena-server:~$
```

7. Muncul pertemuan-1 dan 'pertemuan 2 LAMPP'

```
avisena@avisena-server: ~  
  
Welcome back  
  
Last login: Fri Feb 14 02:51:48 2020  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ ls  
avisena@avisena-server:~$ mkdir pertemuan-2  
avisena@avisena-server:~$ ls-l  
ls-l: command not found  
avisena@avisena-server:~$ ls -l  
total 4  
drwxrwxr-x 2 avisena avisena 4096 Feb 14 02:59 pertemuan-2  
avisena@avisena-server:~$ cp -r pertemuan-2 pertemuan-1  
avisena@avisena-server:~$ cp -r pertemuan-2pertemuan-1  
cp: missing destination file operand after 'pertemuan-2pertemuan-1'  
Try 'cp --help' for more information.  
avisena@avisena-server:~$ cp -r pertemuan-1 pertemuan-2  
avisena@avisena-server:~$ ls  
pertemuan-1  pertemuan-2  
avisena@avisena-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"  
avisena@avisena-server:~$ ls  
pertemuan-1  'pertemuan 2 LAMPP'  
avisena@avisena-server:~$
```

8. Sepertinya masuk ke folder pertemuan-2

```
avisena@avisena-server: ~/pertemuan 2 LAMPP  
  
avisena@avisena-server:~$ mkdir pertemuan-2  
avisena@avisena-server:~$ ls-l  
ls-l: command not found  
avisena@avisena-server:~$ ls -l  
total 4  
drwxrwxr-x 2 avisena avisena 4096 Feb 14 02:59 pertemuan-2  
avisena@avisena-server:~$ cp -r pertemuan-2 pertemuan-1  
avisena@avisena-server:~$ cp -r pertemuan-2pertemuan-1  
cp: missing destination file operand after 'pertemuan-2pertemuan-1'  
Try 'cp --help' for more information.  
avisena@avisena-server:~$ cp -r pertemuan-1 pertemuan-2  
avisena@avisena-server:~$ ls  
pertemuan-1  pertemuan-2  
avisena@avisena-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"  
avisena@avisena-server:~$ ls  
pertemuan-1  'pertemuan 2 LAMPP'  
avisena@avisena-server:~$ cd "pertemuan2"  
-bash: cd: pertemuan2: No such file or directory  
avisena@avisena-server:~$ cd "pertemuan2"  
> nano biodata.txt  
> 123170063  
> ^C  
avisena@avisena-server:~$ cd "pertemuan 2 LAMPP"/  
avisena@avisena-server:~/pertemuan 2 LAMPP$
```

9. Membuat file biodata.txt dan mengisi NIM ke dalamnya

```
avisena@avisena-server: ~/pertemuan 2 LAMPP
ls-l: command not found
avisena@avisena-server:~$ ls -l
total 4
drwxrwxr-x 2 avisena avisena 4096 Feb 14 02:59 pertemuan-2
avisena@avisena-server:~$ cp -r pertemuan-2 pertemuan-1
avisena@avisena-server:~$ cp -r pertemuan-2pertemuan-1
cp: missing destination file operand after 'pertemuan-2pertemuan-1'
Try 'cp --help' for more information.
avisena@avisena-server:~$ cp -r pertemuan-1 pertemuan-2
avisena@avisena-server:~$ ls
pertemuan-1  pertemuan-2
avisena@avisena-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"
avisena@avisena-server:~$ ls
pertemuan-1  'pertemuan 2 LAMPP'
avisena@avisena-server:~$ cd "pertemuan2"
-bash: cd: pertemuan2: No such file or directory
avisena@avisena-server:~$ cd "pertemuan2"
> nano biodata.txt
> 123170063
> ^C
avisena@avisena-server:~$ cd "pertemuan 2 LAMPP"/
avisena@avisena-server:~/pertemuan 2 LAMPP$ nano biodata.txt123170063
avisena@avisena-server:~/pertemuan 2 LAMPP$ nano biodata.txt
avisena@avisena-server:~/pertemuan 2 LAMPP$
```

10. Terdapat biodata.txt yang sebelumnya tak ada

```
avisena@avisena-server: ~/pertemuan 2 LAMPP
avisena@avisena-server:~$ cp -r pertemuan-2 pertemuan-1
avisena@avisena-server:~$ cp -r pertemuan-2pertemuan-1
cp: missing destination file operand after 'pertemuan-2pertemuan-1'
Try 'cp --help' for more information.
avisena@avisena-server:~$ cp -r pertemuan-1 pertemuan-2
avisena@avisena-server:~$ ls
pertemuan-1  pertemuan-2
avisena@avisena-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"
avisena@avisena-server:~$ ls
pertemuan-1  'pertemuan 2 LAMPP'
avisena@avisena-server:~$ cd "pertemuan2"
-bash: cd: pertemuan2: No such file or directory
avisena@avisena-server:~$ cd "pertemuan2"
> nano biodata.txt
> 123170063
> ^C
avisena@avisena-server:~$ cd "pertemuan 2 LAMPP"/
avisena@avisena-server:~/pertemuan 2 LAMPP$ nano biodata.txt123170063
avisena@avisena-server:~/pertemuan 2 LAMPP$ nano biodata.txt
avisena@avisena-server:~/pertemuan 2 LAMPP$ ls -l
total 8
-rw-rw-r-- 1 avisena avisena 10 Feb 14 03:12 biodata.txt
drwxrwxr-x 2 avisena avisena 4096 Feb 14 03:03 pertemuan-1
avisena@avisena-server:~/pertemuan 2 LAMPP$
```

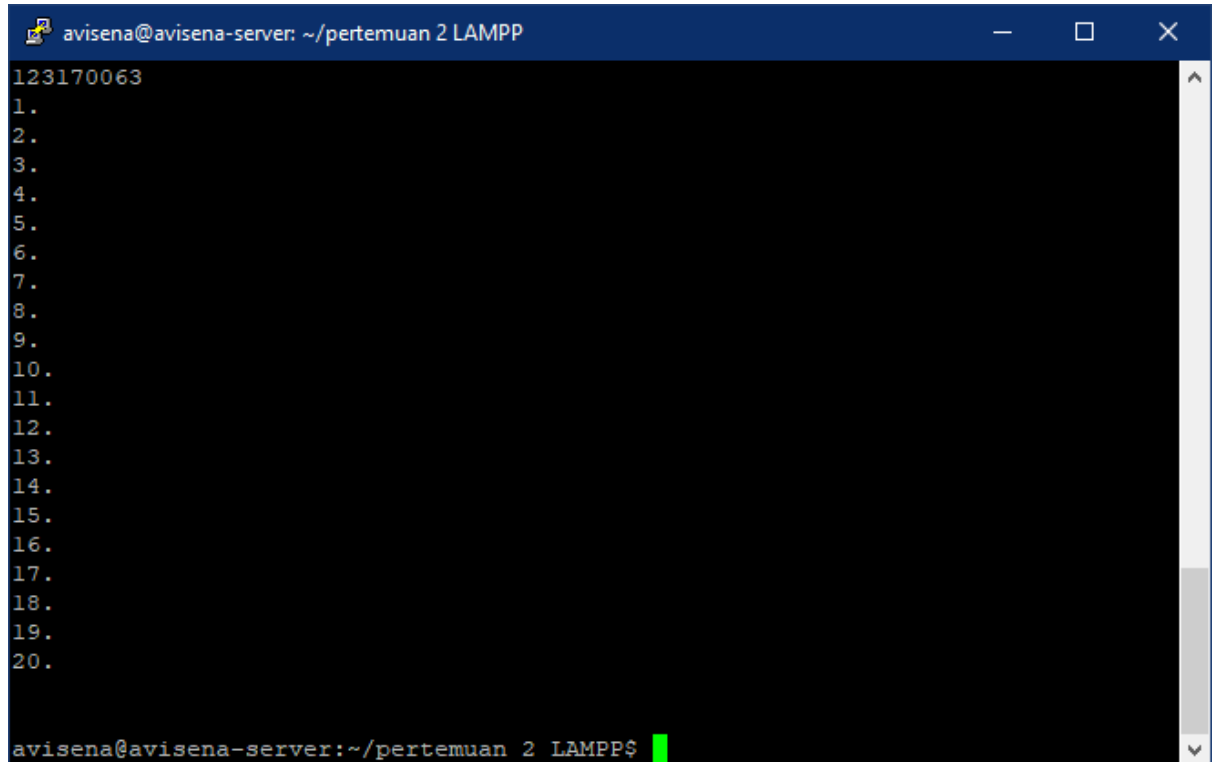
11. Hasilnya adalah NIM yang tadi dimasukkan

```
avisena@avisena-server: ~/pertemuan 2 LAMPP
cp: missing destination file operand after 'pertemuan-2pertemuan-1'
Try 'cp --help' for more information.
avisena@avisena-server:~$ cp -r pertemuan-1 pertemuan-2
avisena@avisena-server:~$ ls
pertemuan-1  pertemuan-2
avisena@avisena-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"
avisena@avisena-server:~$ ls
pertemuan-1  'pertemuan 2 LAMPP'
avisena@avisena-server:~$ cd "pertemuan2"
-bash: cd: pertemuan2: No such file or directory
avisena@avisena-server:~$ cd "pertemuan2
> nano biodata.txt
> 123170063
> ^C
avisena@avisena-server:~$ cd "pertemuan 2 LAMPP"/
avisena@avisena-server:~/pertemuan 2 LAMPP$ nano biodata.txt123170063
avisena@avisena-server:~/pertemuan 2 LAMPP$ nano biodata.txt
avisena@avisena-server:~/pertemuan 2 LAMPP$ ls -l
total 8
-rw-rw-r-- 1 avisena avisena  10 Feb 14 03:12 biodata.txt
drwxrwxr-x 2 avisena avisena 4096 Feb 14 03:03 pertemuan-1
avisena@avisena-server:~/pertemuan 2 LAMPP$ cat biodata.txt
123170063
avisena@avisena-server:~/pertemuan 2 LAMPP$
```

12. Mengisikan apa yang dimaksud

```
GNU nano 2.9.8 biodata.txt
123170063
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.
[ Read 23 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
```

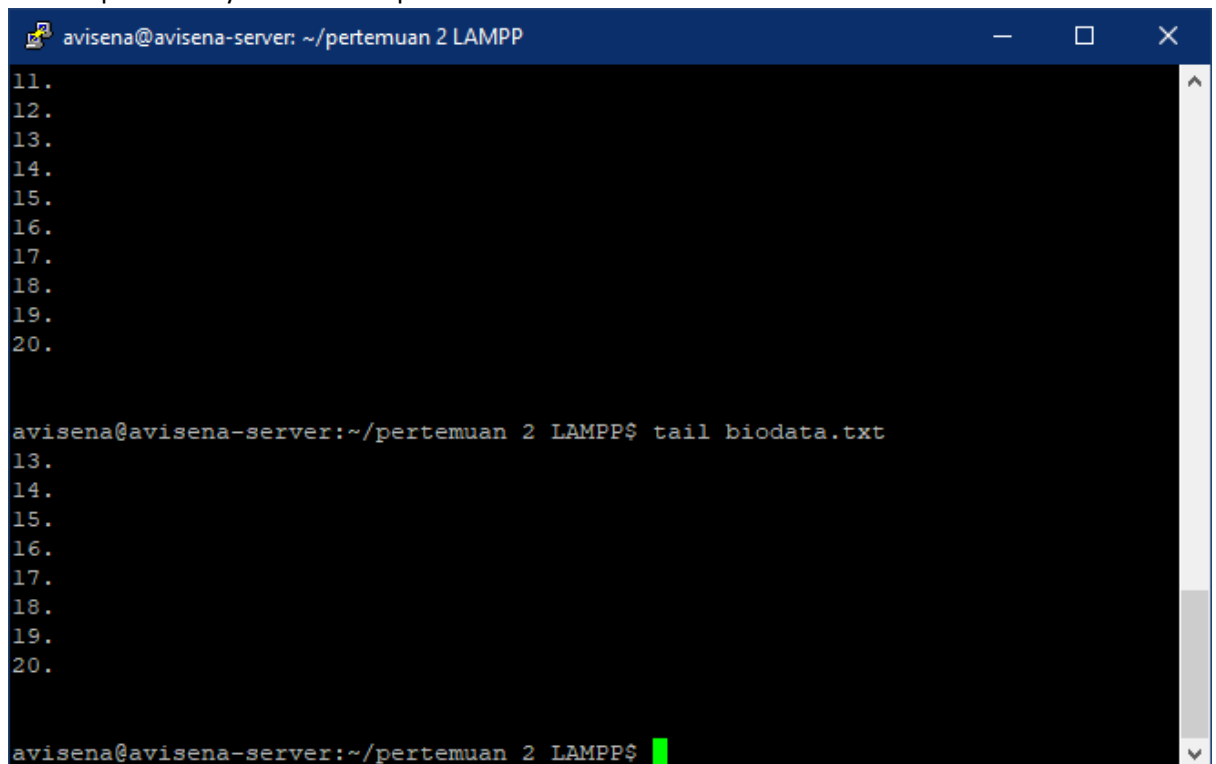
13. Menampilkan isi biodata.txt

A terminal window titled 'avisena@avisena-server: ~/pertemuan 2 LAMPP'. The window displays the output of a command that shows the contents of 'biodata.txt'. The output consists of a long list of numbers from 1 to 20, each followed by a period. The terminal has a dark blue title bar and a black background with white text. A green cursor is visible at the bottom of the window.

```
avisena@avisena-server: ~/pertemuan 2 LAMPP
123170063
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.

avisena@avisena-server:~/pertemuan 2 LAMPP$
```

14. Menampilkan hanya dari 13 sampai 20

A terminal window titled 'avisena@avisena-server: ~/pertemuan 2 LAMPP'. The window displays the output of the command 'tail biodata.txt'. The output shows the last seven lines of the file, which are numbers 13 through 20, each followed by a period. The terminal has a dark blue title bar and a black background with white text. A green cursor is visible at the bottom of the window.

```
avisena@avisena-server: ~/pertemuan 2 LAMPP
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.

avisena@avisena-server:~/pertemuan 2 LAMPP$ tail biodata.txt
13.
14.
15.
16.
17.
18.
19.
20.

avisena@avisena-server:~/pertemuan 2 LAMPP$
```