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Kelas : Praktikum TCC C

Praktikum Cloud Computing

Pengenal VMware Workstation dan LinuxOS

Pertemuan 2

- Conceptual Application
 1. Virtual OS
 2. Aplikasi VMware Workstation
Digunakan untuk virtualisasi sistem operasi.
 3. OS pada Komputer
 4. Hardware Fisik Komputer
- Manfaat fasilitas swapping
Bila komputer host tidak memiliki RAM yang cukup untuk menjalankan VM.
Edit->Preference->memory->allow most
- Agar XAMPP tidak error

- Sebelum membuat VM baru cek dulu ISOnya

- Pembuatan VM
 1. Create New VM (Pilih Custom)



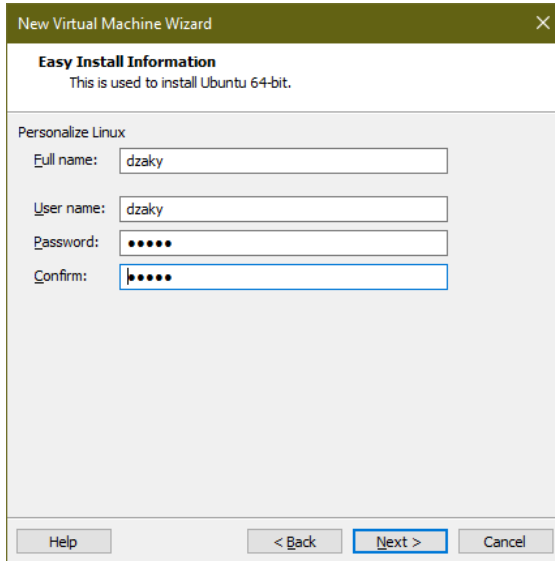
2. Hardware compatibility (workstation 15.x)

The screenshot shows the 'New Virtual Machine Wizard' window, specifically the 'Choose the Virtual Machine Hardware Compatibility' step. The title bar reads 'New Virtual Machine Wizard'. The main heading is 'Choose the Virtual Machine Hardware Compatibility' with the subtitle 'Which hardware features are needed for this virtual machine?'. Below this, the 'Virtual machine hardware compatibility' section contains a 'Hardware compatibility:' dropdown menu set to 'Workstation 15.x'. Under 'Compatible with:', the 'ESX Server' checkbox is checked. Two list boxes are present: 'Compatible products:' containing 'Fusion 11.x' and 'Workstation 15.x', and 'Limitations:' containing '64 GB memory', '16 processors', '10 network adapters', '8 TB disk size', and '3 GB shared graphics memory'. At the bottom, there are buttons for 'Help', '< Back', 'Next >', and 'Cancel'.

3.

The screenshot shows the 'New Virtual Machine Wizard' window, specifically the 'Guest Operating System Installation' step. The title bar reads 'New Virtual Machine Wizard'. The main heading is 'Guest Operating System Installation' with the subtitle 'A virtual machine is like a physical computer; it needs an operating system. How will you install the guest operating system?'. Under 'Install from:', there are three radio button options. The first is 'Installer disc:' with a dropdown menu showing 'DVD RW Drive (F:)'. The second, which is selected, is 'Installer disc image file (iso):' with a text box containing 'C:\ISO Library\ubuntu-18.10-live-server-amd64.iso' and a 'Browse...' button. Below this, a checkbox is checked, and text indicates 'Ubuntu 64-bit Server 18.10 detected. This operating system will use Easy Install. (What's this?)'. The third option is 'I will install the operating system later.' with a note 'The virtual machine will be created with a blank hard disk.' At the bottom, there are buttons for 'Help', '< Back', 'Next >', and 'Cancel'.

4.



New Virtual Machine Wizard

Easy Install Information
This is used to install Ubuntu 64-bit.

Personalize Linux

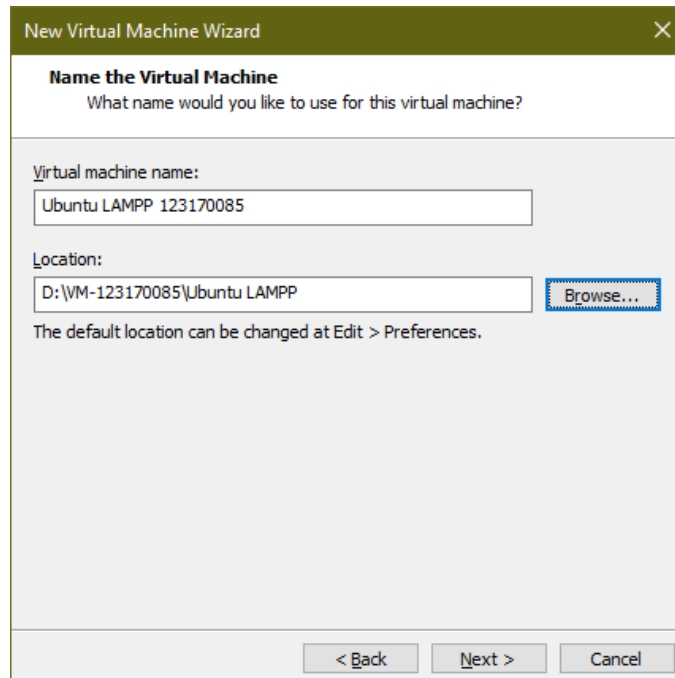
Full name:

User name:

Password:

Confirm:

5.



New Virtual Machine Wizard

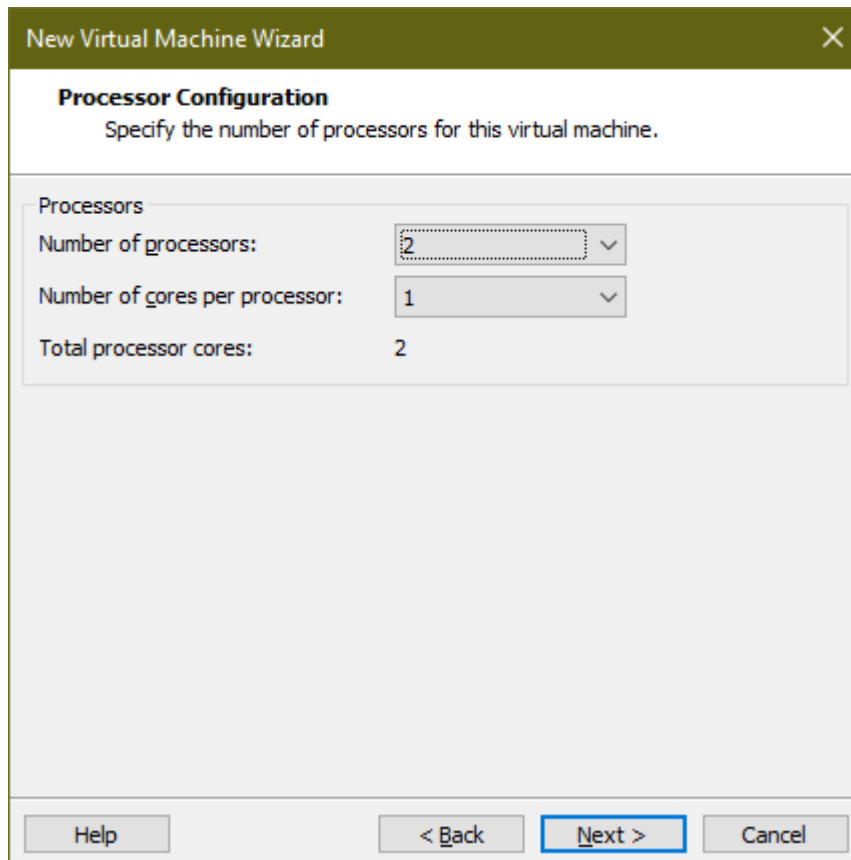
Name the Virtual Machine
What name would you like to use for this virtual machine?

Virtual machine name:

Location:

The default location can be changed at Edit > Preferences.

6.



New Virtual Machine Wizard

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

Processors

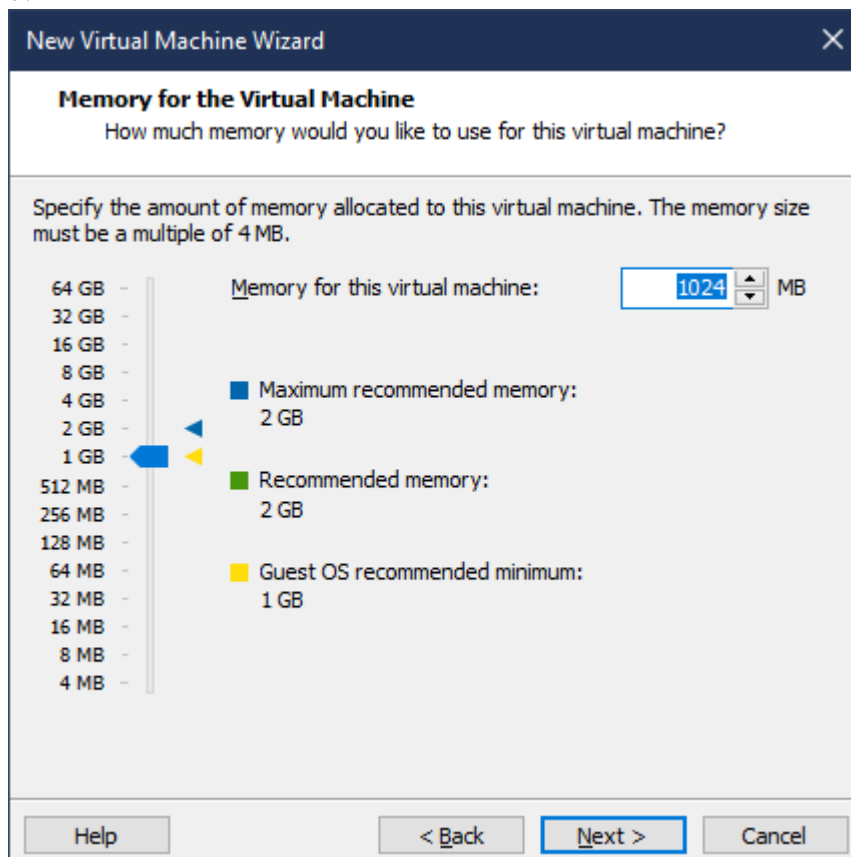
Number of processors: 2

Number of cores per processor: 1

Total processor cores: 2

Help < Back Next > Cancel

7.



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: 1024 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

8. Pilih mode networking NAT

The screenshot shows the 'New Virtual Machine Wizard' dialog box, specifically the 'Network Type' step. The title bar reads 'New Virtual Machine Wizard' with a close button. The main heading is 'Network Type' with the subtitle 'What type of network do you want to add?'. Below this, there is a section titled 'Network connection' containing four radio button options: 'Use bridged networking' (with a description: '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)' (which is selected and has a description: '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' (with a description: 'Connect the guest operating system to a private virtual network on the host computer.'), and 'Do not use a network connection'. At the bottom of the dialog, there are four buttons: 'Help', '< Back', 'Next >' (which is highlighted with a blue border), and 'Cancel'.

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

9.

The screenshot shows the 'New Virtual Machine Wizard' dialog box, specifically the 'Select I/O Controller Types' step. The title bar reads 'New Virtual Machine Wizard' with a close button. The main heading is 'Select I/O Controller Types' with the subtitle 'Which SCSI controller type would you like to use?'. Below this, there is a section titled 'I/O controller types' containing a sub-section 'SCSI Controller:' with three radio button options: 'BusLogic' (with a note: '(Not available for 64-bit guests)'), 'LSI Logic' (which is selected and has a note: '(Recommended)'), and 'LSI Logic SAS'. At the bottom of the dialog, there are four buttons: 'Help', '< Back', 'Next >' (which is highlighted with a blue border), and 'Cancel'.

New Virtual Machine Wizard

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

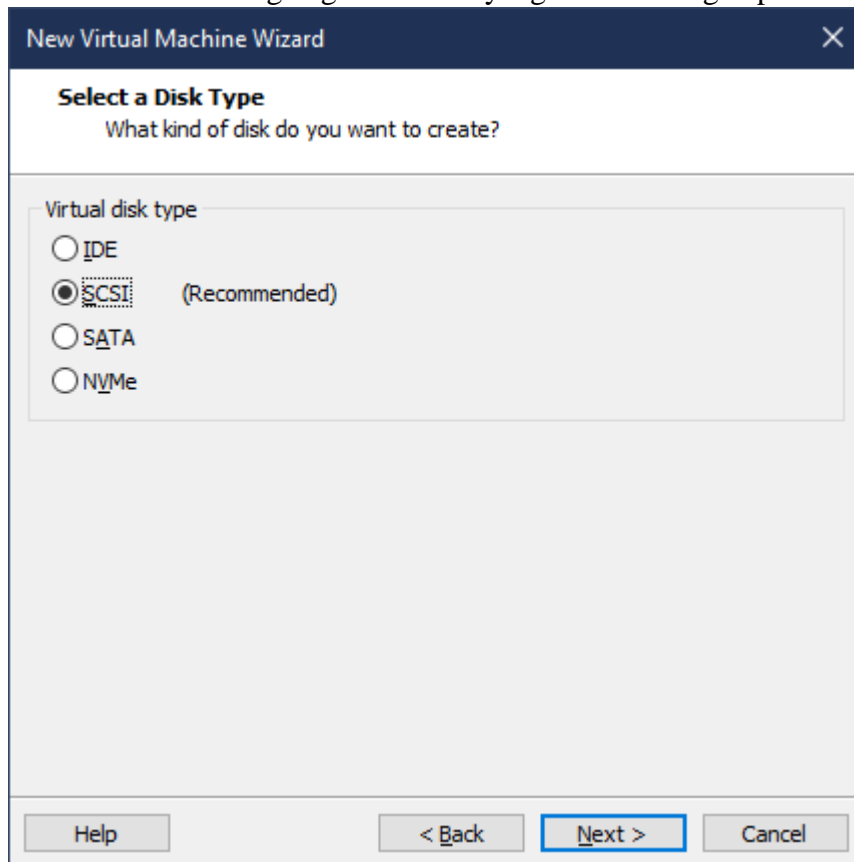
I/O controller types

SCSI Controller:

- ☐ BusLogic (Not available for 64-bit guests)
- ☒ LSI Logic (Recommended)
- ☐ LSI Logic SAS

Help < Back Next > Cancel

10. Disesuaikan dengan generasi OS yang diinstal dengan pilih SCSI(Recommended)



11. Karena belum pernah bikin VM maka kita pilih yang Create New Virtual Disk

New Virtual Machine Wizard [X]

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

12. Pakai disk size sesuai default , Split virtual disk memudahkan pindah berkasnya

New Virtual Machine Wizard [X]

Specify Disk Capacity
How large do you want this disk to be?

Maximum disk size (GB): [up/down arrows]

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

13.

New Virtual Machine Wizard

Specify Disk File

Where would you like to store the disk file?

Disk file

A 20 GB virtual disk be created using multiple disk files. The disk files will be automatically named based on this file name.

Ubuntu LAMPP 123170085.vmdk

Browse...

Help

< Back

Next >

Cancel

14.

New Virtual Machine Wizard

Ready to Create Virtual Machine

Click Finish to create the virtual machine and start installing Ubuntu 64-bit and then VMware Tools.

The virtual machine will be created with the following settings:

Name: Ubuntu LAMPP 123170085

Location: D:\VM-123170085\Ubuntu LAMPP

Version: Workstation 15.x

Operating System: Ubuntu 64-bit

Hard Disk: 20 GB, Split

Memory: 1024 MB

Network Adapter: NAT

Other Devices: 2 CPU cores, CD/DVD, USB Controller, Printer, Sound...

Customize Hardware...

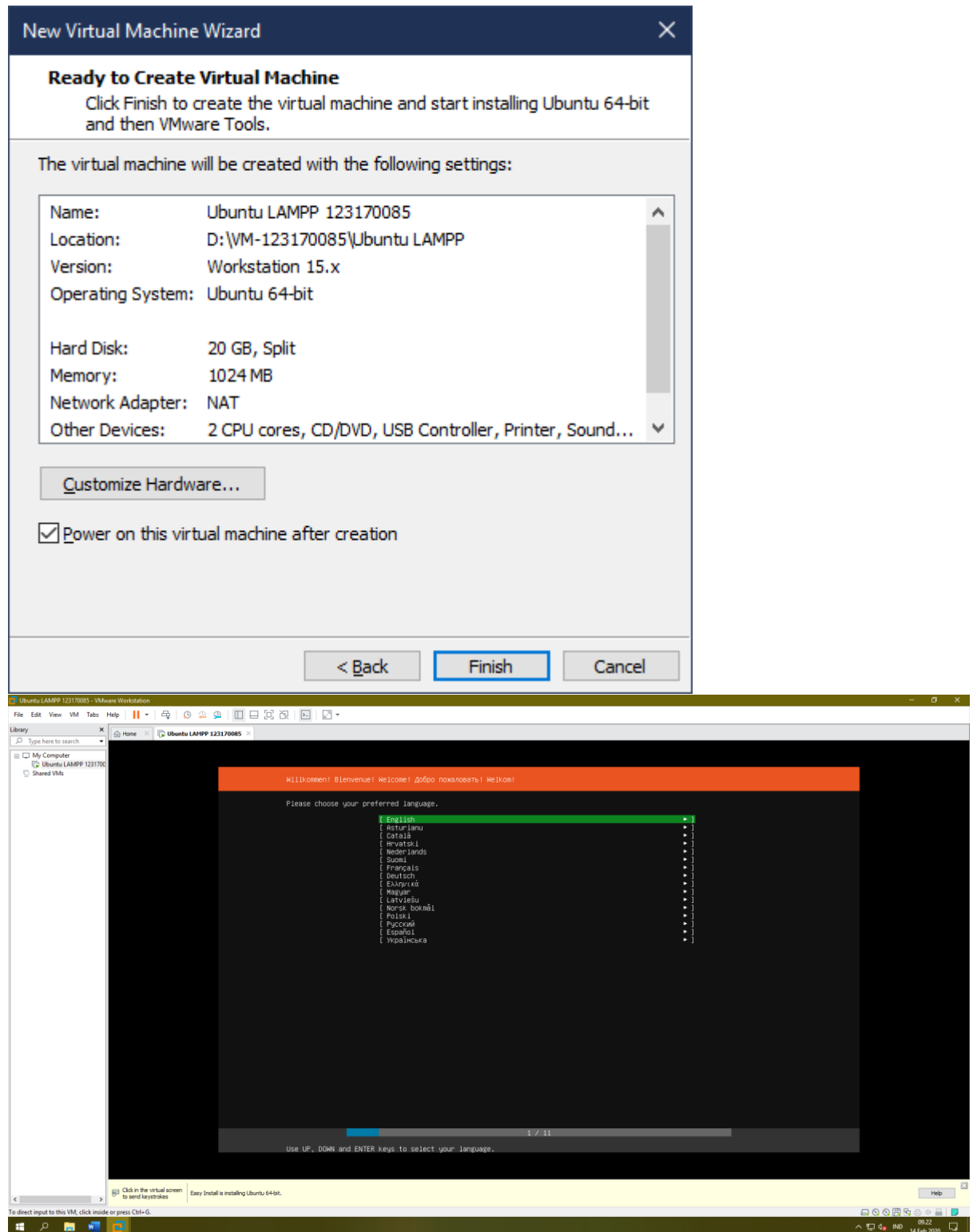
☒ Power on this virtual machine after creation

< Back

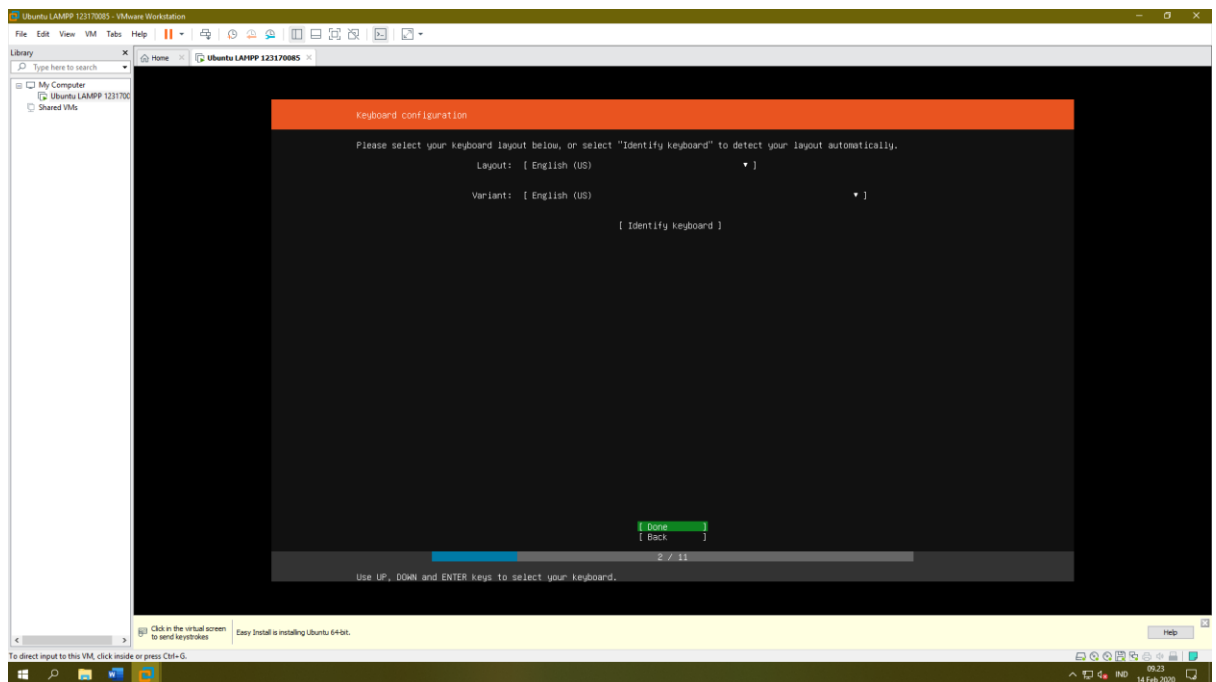
Finish

Cancel

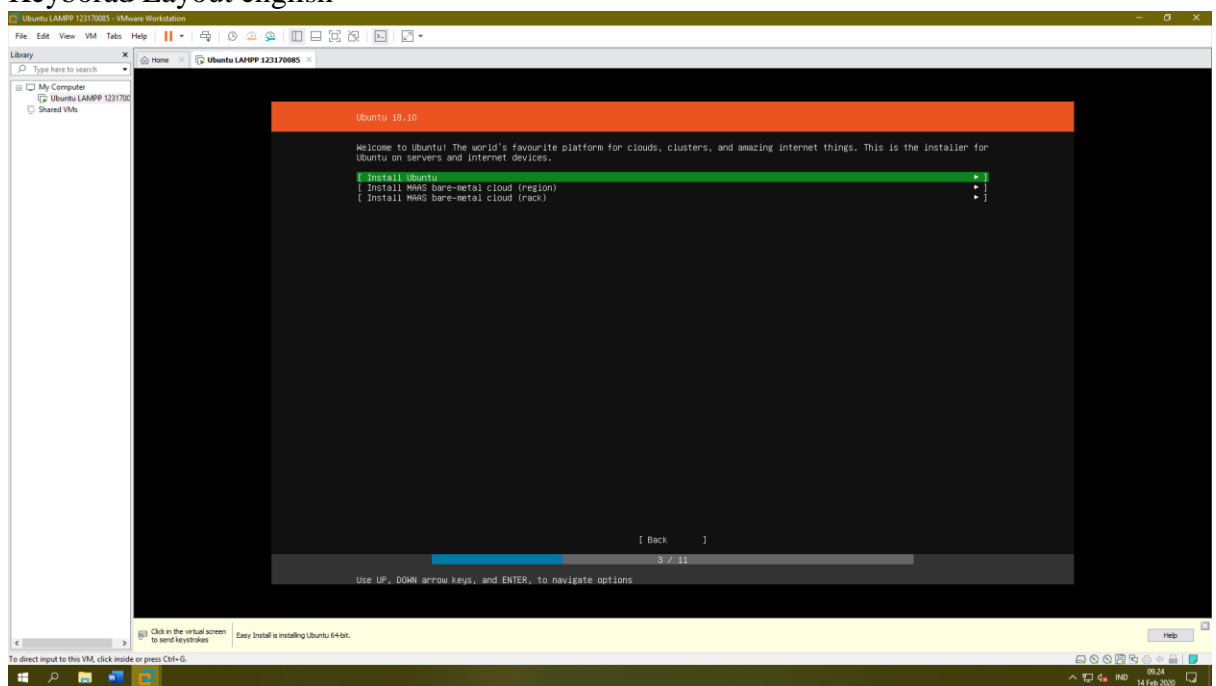
15.



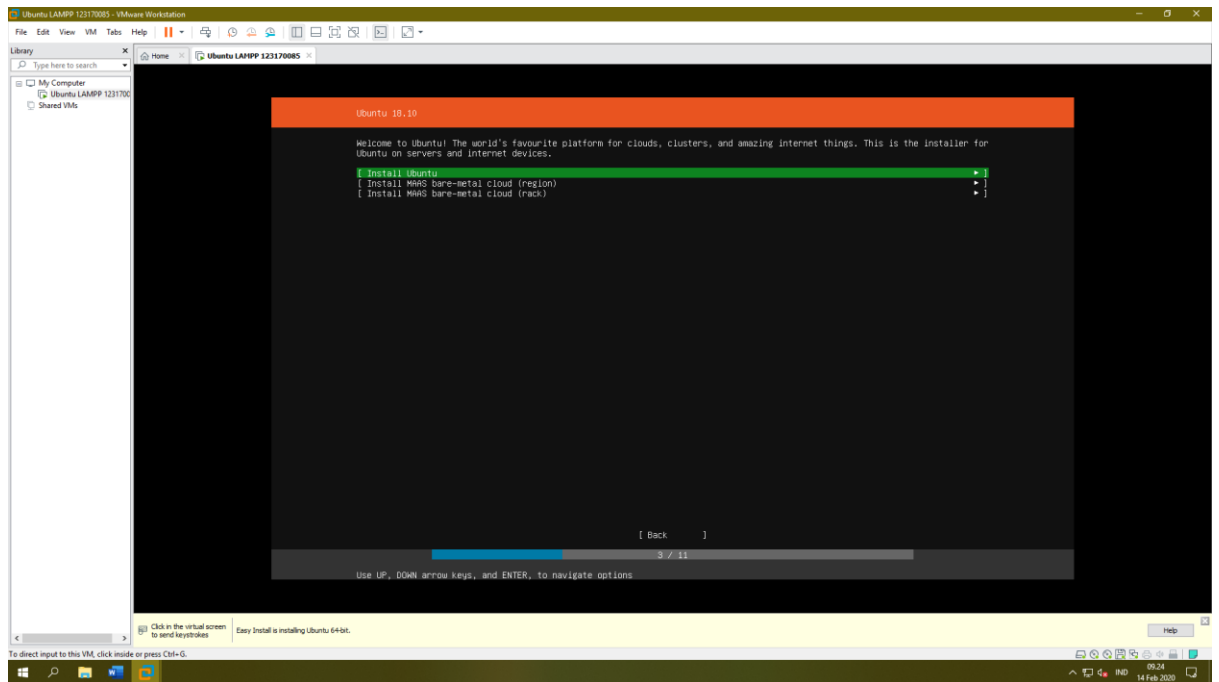
Cara interaksi dengan VM dengan Ctrl + G/ di klik bagian tengah, untuk



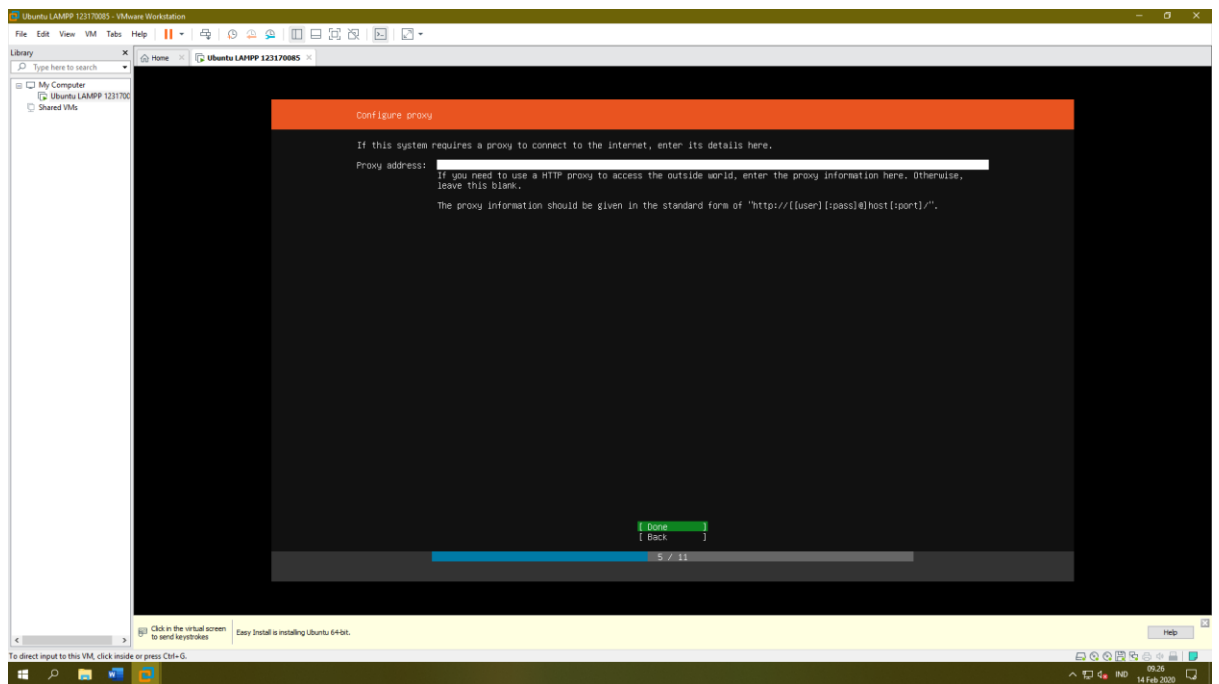
Keyboard Layout english



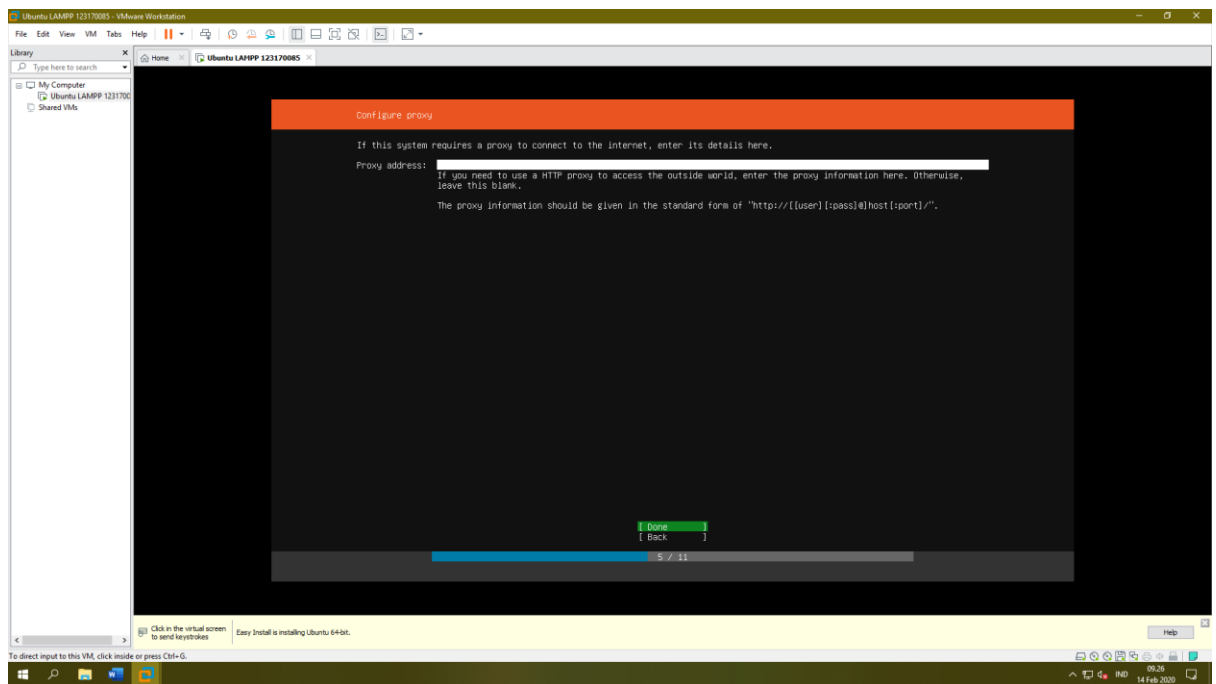
Mode Instal ubuntu biasa



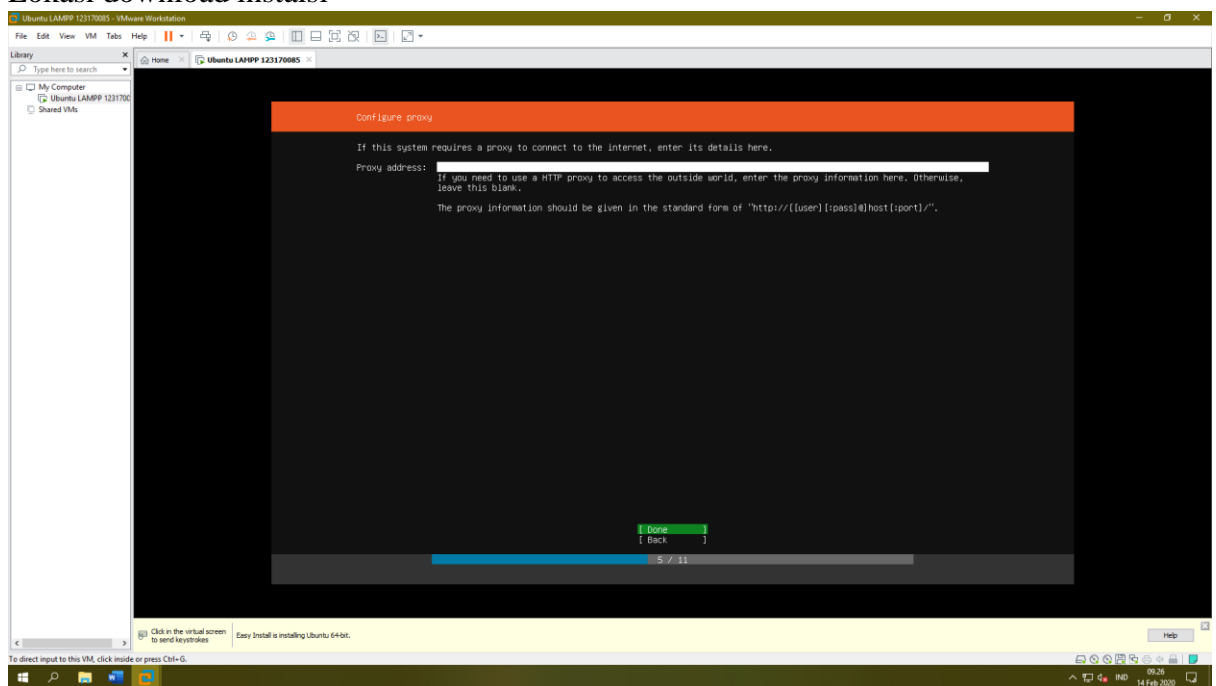
Menu network connections



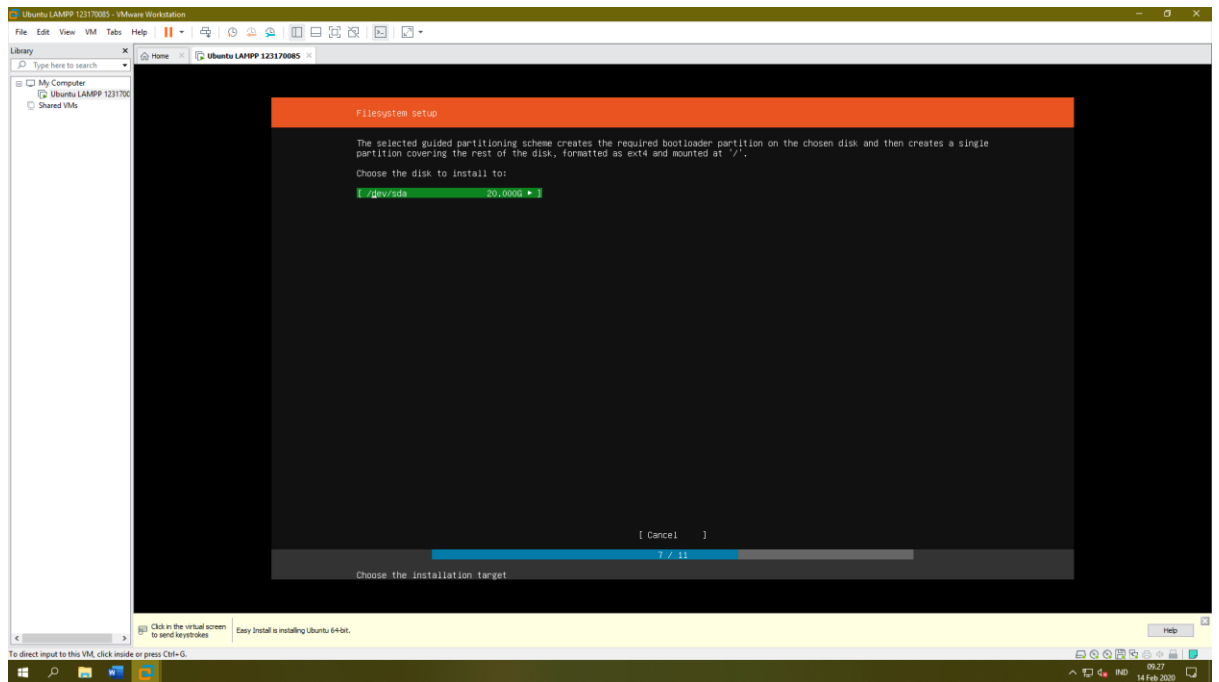
Kalo tidak ada pengaturan poxy maka dibiarkan kosong



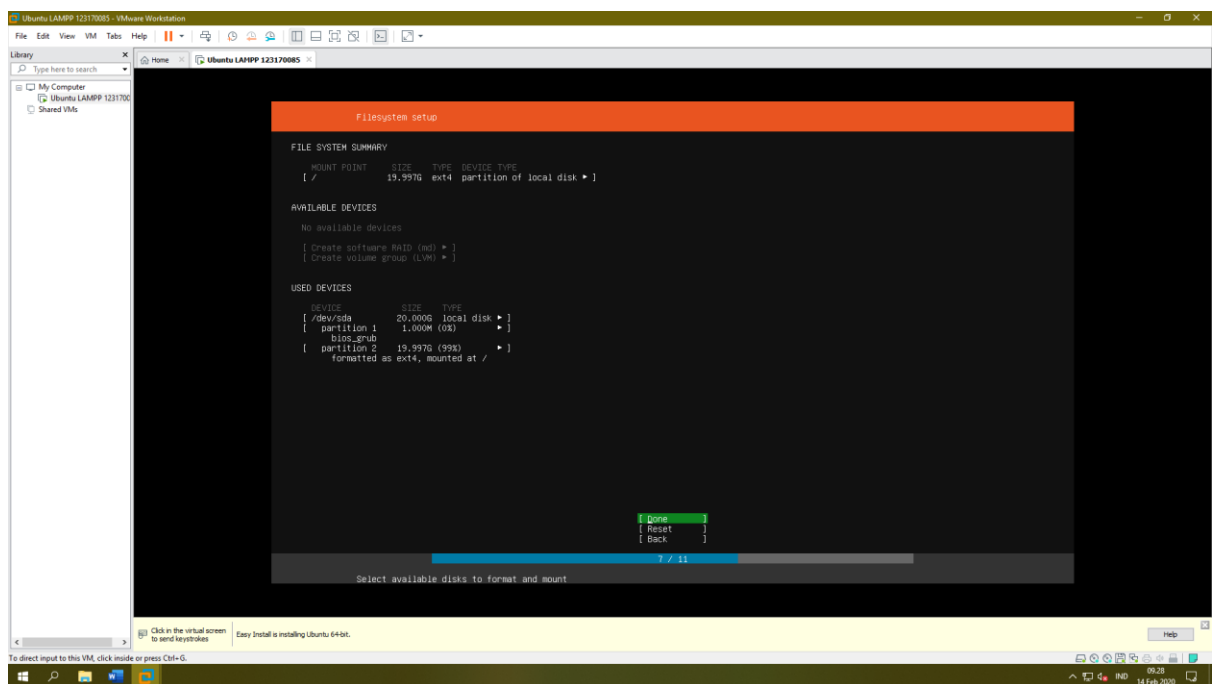
Lokasi download instalasi



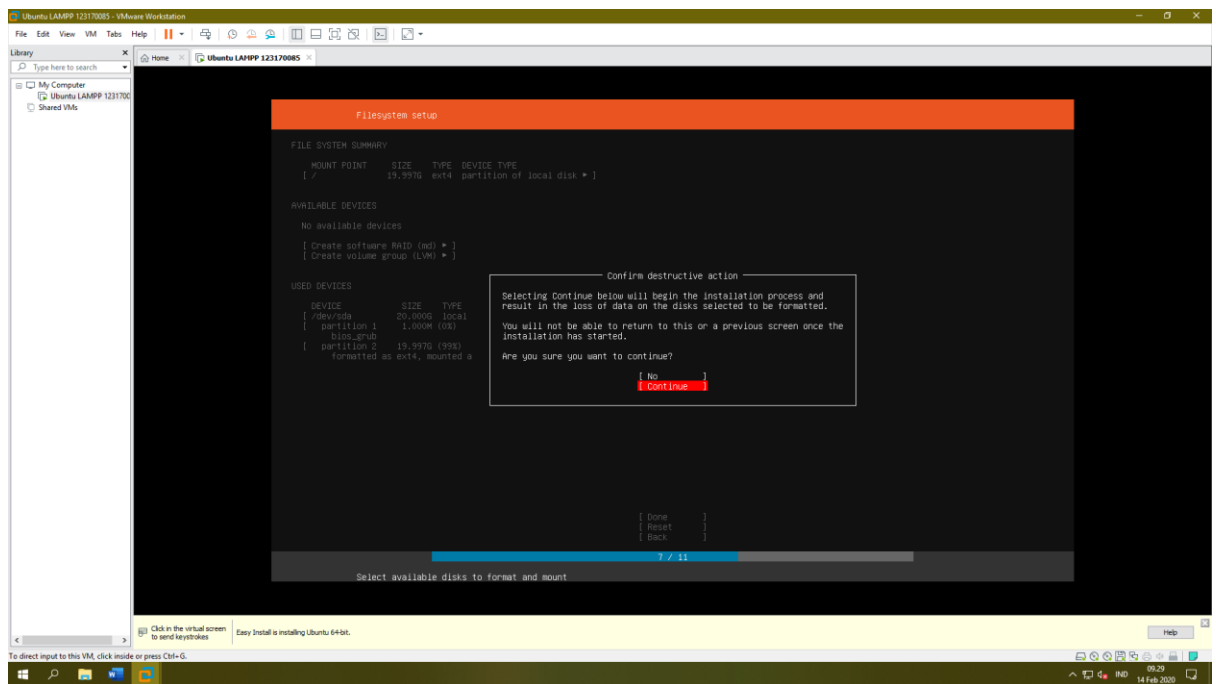
Alamat repository



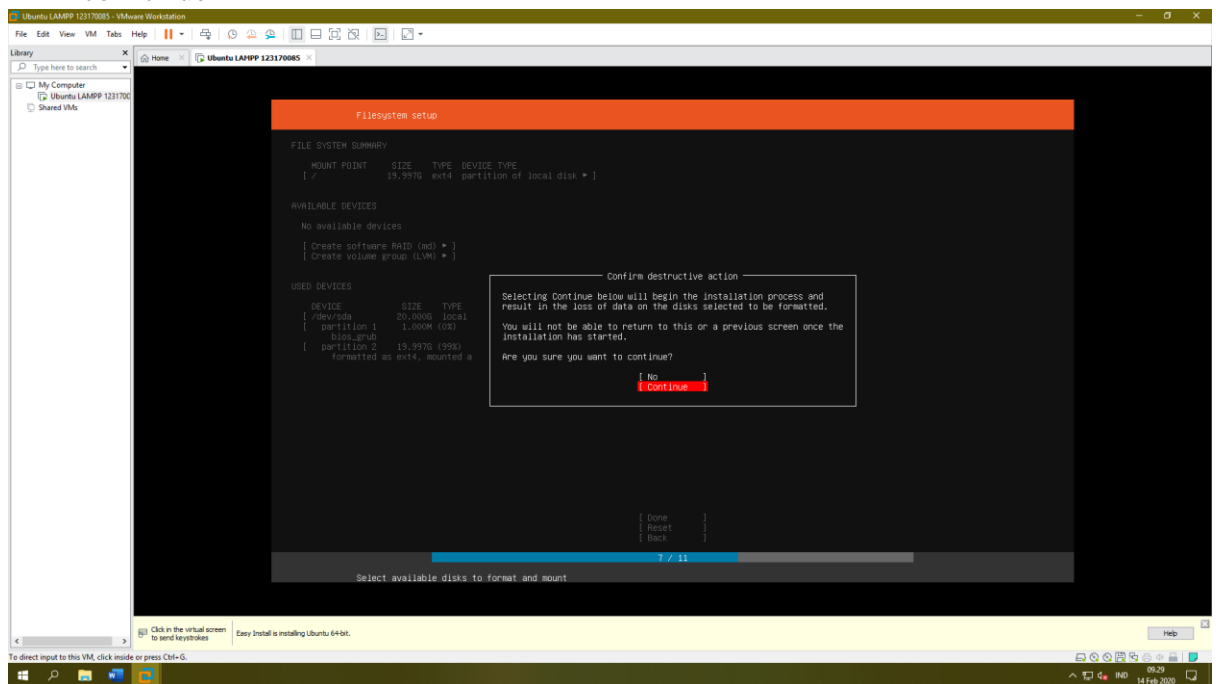
Merupakan Disk C nya Ubuntu

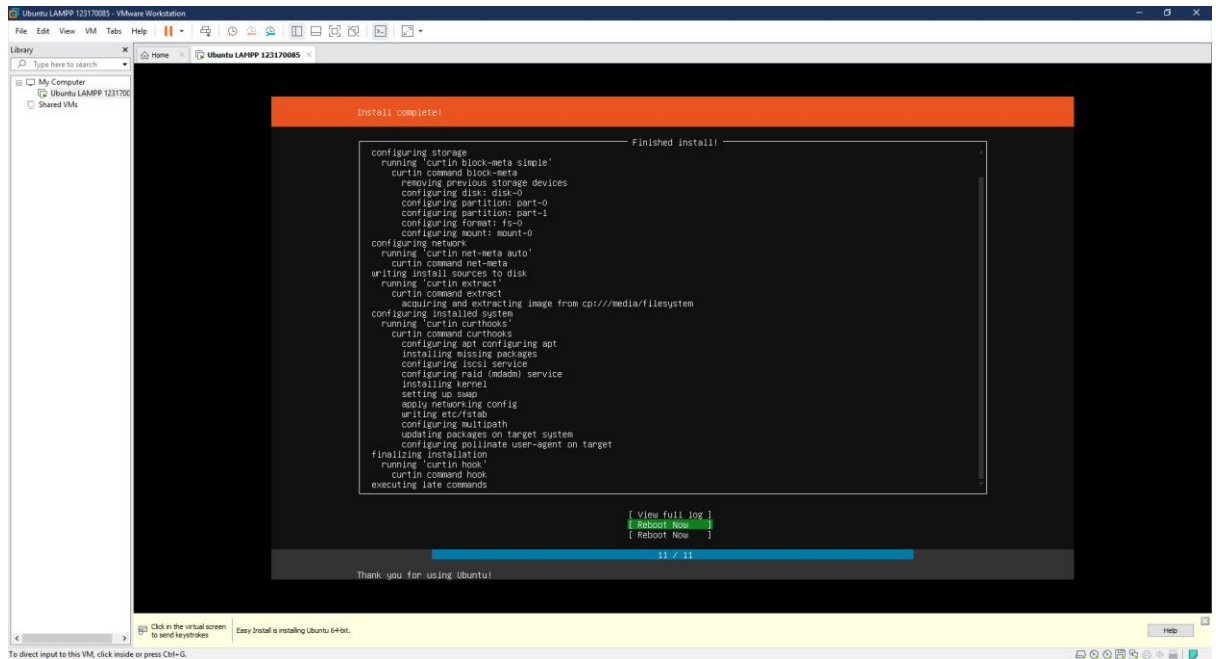
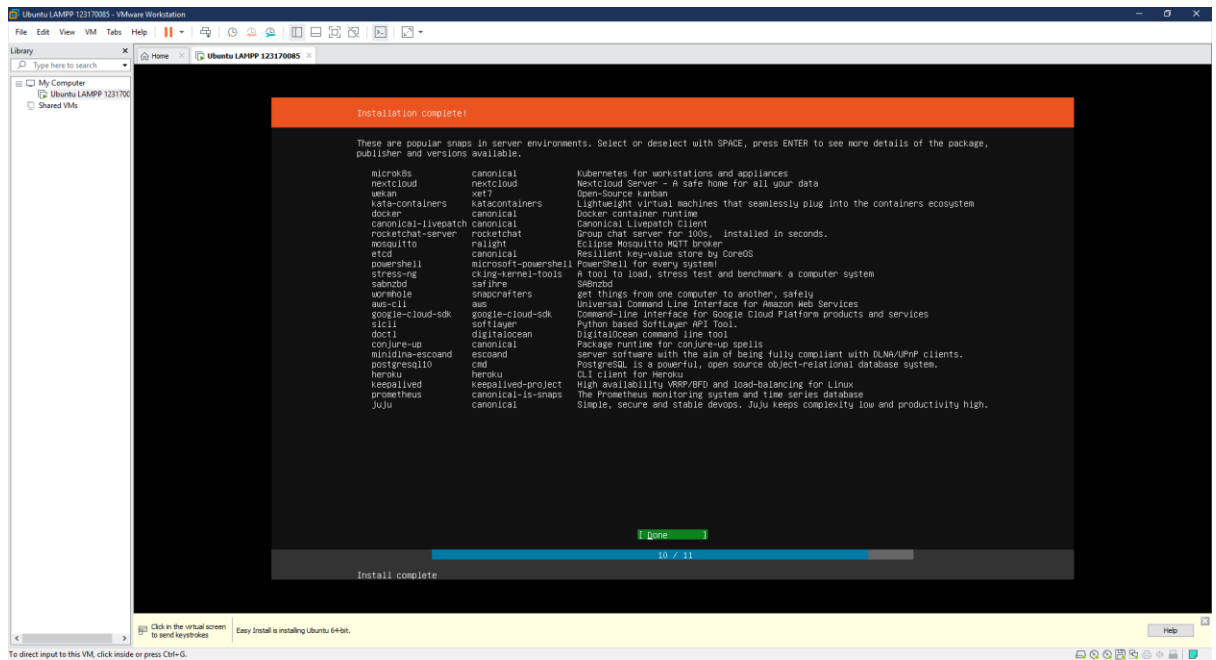


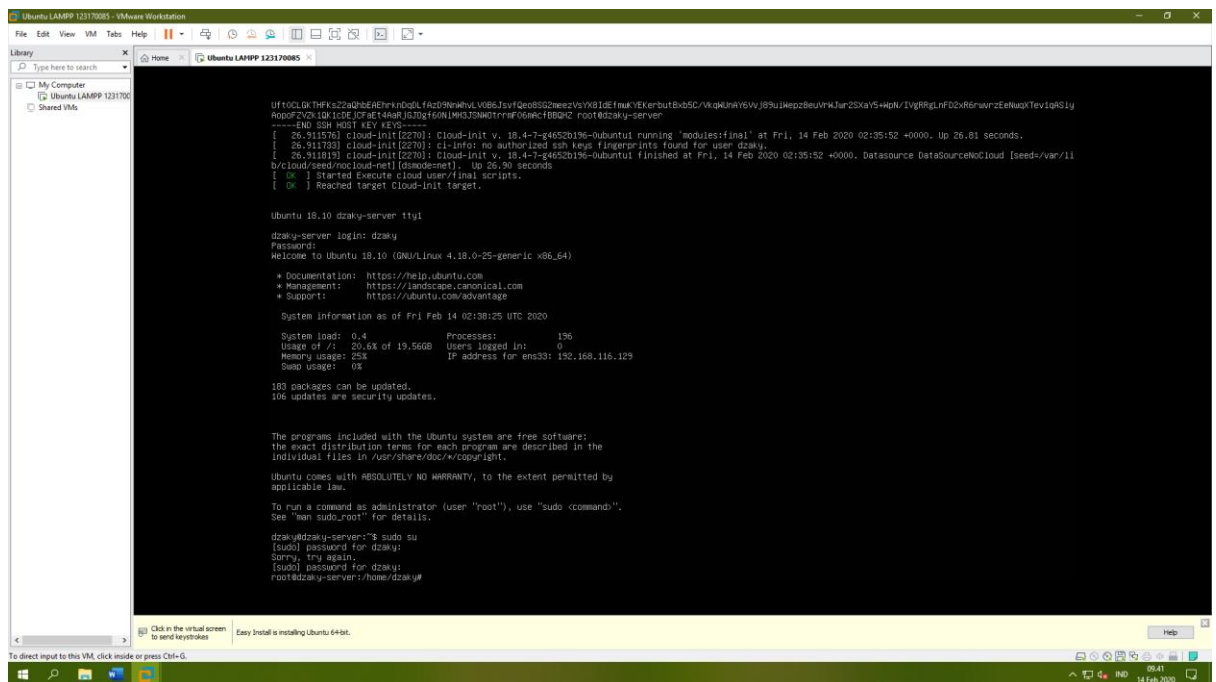
Bagian konfirmasi



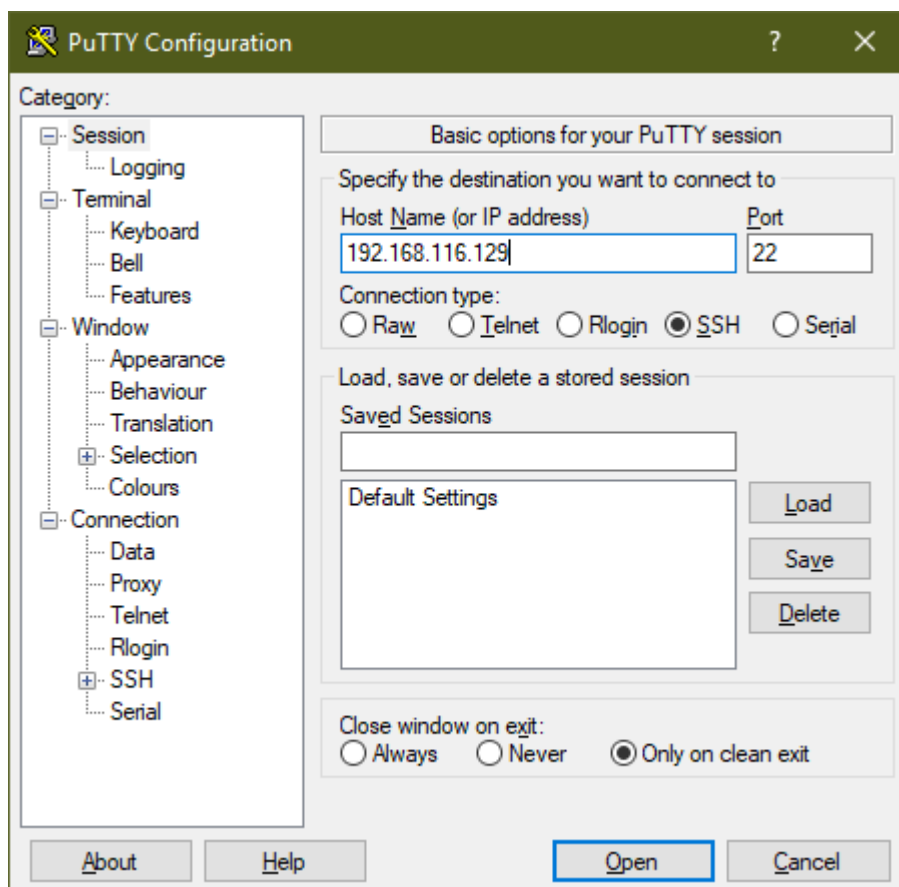
Kilik continue







Untuk save pada nano pakai ctrl+O kemudian akan muncul **wrote**



```
dzaky@dzaky-server: ~  
Memory usage: 26%          IP address for ens33: 192.168.116.129  
Swap usage: 0%  
  
* Multipass 1.0 is out! Get Ubuntu VMs on demand on your Linux, Windows or  
  Mac. Supports cloud-init for fast, local, cloud devops simulation.  
  
  https://multipass.run/  
  
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.  
  
Wellcome Gas  
Samleksss  
Ait gaaaiisss  
Last login: Fri Feb 14 02:50:56 2020  
dzaky@dzaky-server:~$
```

1. ls

```
dzaky@dzaky-server: ~  
* Multipass 1.0 is out! Get Ubuntu VMs on demand on your Linux, Windows or  
  Mac. Supports cloud-init for fast, local, cloud devops simulation.  
  
  https://multipass.run/  
  
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.  
  
Wellcome Gas  
Samleksss  
Ait gaaaiisss  
Last login: Fri Feb 14 02:50:56 2020  
dzaky@dzaky-server:~$ ls
```

2. mkdir pertemuuaa-2

```
dzaky@dzaky-server: ~  
Mac. Supports cloud-init for fast, local, cloud devops simulation.  
  
https://multipass.run/  
  
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.  
  
Wellcome Gas  
Samleksss  
Ait gaaaiisss  
Last login: Fri Feb 14 02:50:56 2020  
dzaky@dzaky-server:~$ ls  
dzaky@dzaky-server:~$ mkdir pertemuan-2
```

3. ls -l meanmpilkan nama server tanggal dan jam dan read mkdir

```
dzaky@dzaky-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.  
  
Wellcome Gas  
Samleksss  
Ait gaaaiisss  
Last login: Fri Feb 14 02:50:56 2020  
dzaky@dzaky-server:~$ ls  
dzaky@dzaky-server:~$ mkdir pertemuan-2  
dzaky@dzaky-server:~$ ls -l  
total 4  
drwxrwxr-x 2 dzaky dzaky 4096 Feb 14 02:58 pertemuan-2  
dzaky@dzaky-server:~$
```

4. cp -r pertemuan-2

```
dzaky@dzaky-server: ~  
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.  
  
Wellcome Gas  
Samleksss  
Ait gaaaiisss  
Last login: Fri Feb 14 02:50:56 2020  
dzaky@dzaky-server:~$ ls  
dzaky@dzaky-server:~$ mkdir pertemuan-2  
dzaky@dzaky-server:~$ ls -l  
total 4  
drwxrwxr-x 2 dzaky dzaky 4096 Feb 14 02:58 pertemuan-2  
dzaky@dzaky-server:~$ cp -r pertemuan-2 pertemua-1  
dzaky@dzaky-server:~$
```

5. ls (untuk menampilkan data yang telah dideklarasikan)

```
dzaky@dzaky-server: ~  
For upgrade information, please visit:  
http://www.ubuntu.com/releaseendoflife  
  
New release '19.10' available.  
Run 'do-release-upgrade' to upgrade to it.  
  
Wellcome Gas  
Samleksss  
Ait gaaaiisss  
Last login: Fri Feb 14 02:50:56 2020  
dzaky@dzaky-server:~$ ls  
dzaky@dzaky-server:~$ mkdir pertemuan-2  
dzaky@dzaky-server:~$ ls -l  
total 4  
drwxrwxr-x 2 dzaky dzaky 4096 Feb 14 02:58 pertemuan-2  
dzaky@dzaky-server:~$ cp -r pertemuan-2 pertemua-1  
dzaky@dzaky-server:~$ ^C  
dzaky@dzaky-server:~$ cp -r pertemuan-2 pertemuan-1  
dzaky@dzaky-server:~$ ls  
pertemua-1 pertemuan-1 pertemuan-2
```

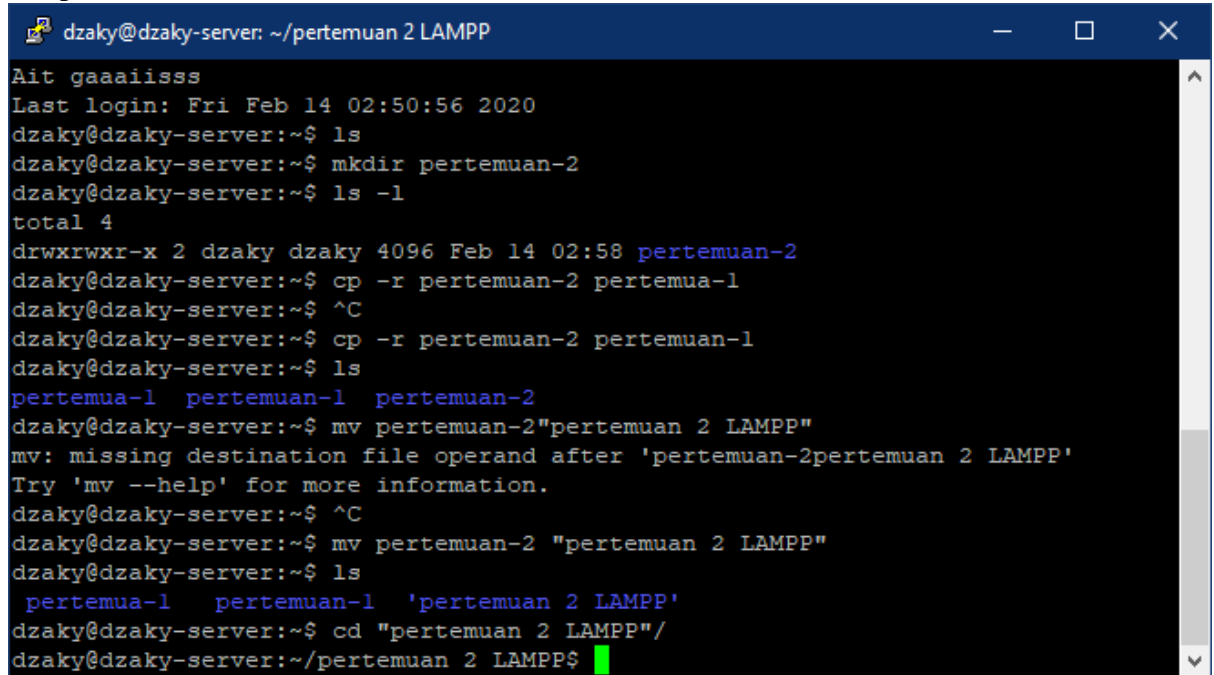
6. Mv pertemuan-2 “pertemuan 2 LAMPP” (deklarasi)

```
dzaky@dzaky-server: ~  
  
Wellcome Gas  
Samleksss  
Ait gaaaiisss  
Last login: Fri Feb 14 02:50:56 2020  
dzaky@dzaky-server:~$ ls  
dzaky@dzaky-server:~$ mkdir pertemuan-2  
dzaky@dzaky-server:~$ ls -l  
total 4  
drwxrwxr-x 2 dzaky dzaky 4096 Feb 14 02:58 pertemuan-2  
dzaky@dzaky-server:~$ cp -r pertemuan-2 pertemua-1  
dzaky@dzaky-server:~$ ^C  
dzaky@dzaky-server:~$ cp -r pertemuan-2 pertemuan-1  
dzaky@dzaky-server:~$ ls  
pertemua-1 pertemuan-1 pertemuan-2  
dzaky@dzaky-server:~$ mv pertemuan-2"pertemuan 2 LAMPP"  
mv: missing destination file operand after 'pertemuan-2pertemuan 2 LAMPP'  
Try 'mv --help' for more information.  
dzaky@dzaky-server:~$ ^C  
dzaky@dzaky-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"
```

7. ls(deklarasi data sebelumnya)

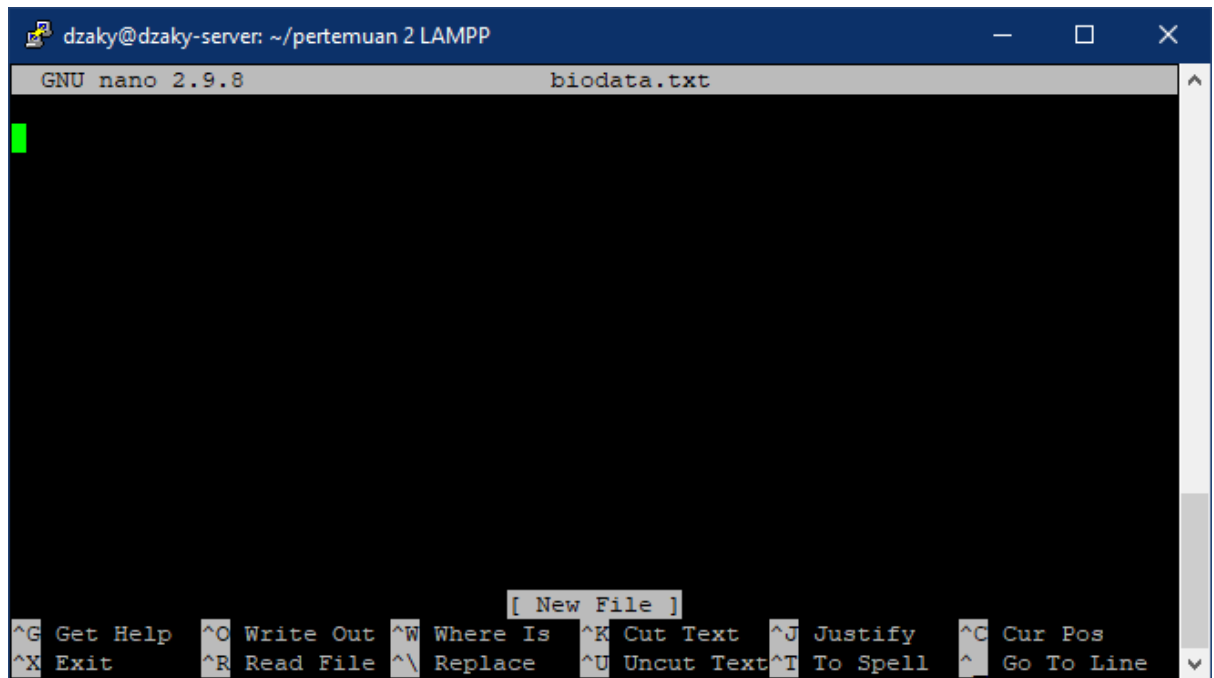
```
dzaky@dzaky-server: ~  
  
Samleksss  
Ait gaaaiisss  
Last login: Fri Feb 14 02:50:56 2020  
dzaky@dzaky-server:~$ ls  
dzaky@dzaky-server:~$ mkdir pertemuan-2  
dzaky@dzaky-server:~$ ls -l  
total 4  
drwxrwxr-x 2 dzaky dzaky 4096 Feb 14 02:58 pertemuan-2  
dzaky@dzaky-server:~$ cp -r pertemuan-2 pertemua-1  
dzaky@dzaky-server:~$ ^C  
dzaky@dzaky-server:~$ cp -r pertemuan-2 pertemuan-1  
dzaky@dzaky-server:~$ ls  
pertemua-1 pertemuan-1 pertemuan-2  
dzaky@dzaky-server:~$ mv pertemuan-2"pertemuan 2 LAMPP"  
mv: missing destination file operand after 'pertemuan-2pertemuan 2 LAMPP'  
Try 'mv --help' for more information.  
dzaky@dzaky-server:~$ ^C  
dzaky@dzaky-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"  
dzaky@dzaky-server:~$ ls  
pertemua-1 pertemuan-1 'pertemuan 2 LAMPP'  
dzaky@dzaky-server:~$
```

8. cd "pertemuan 2

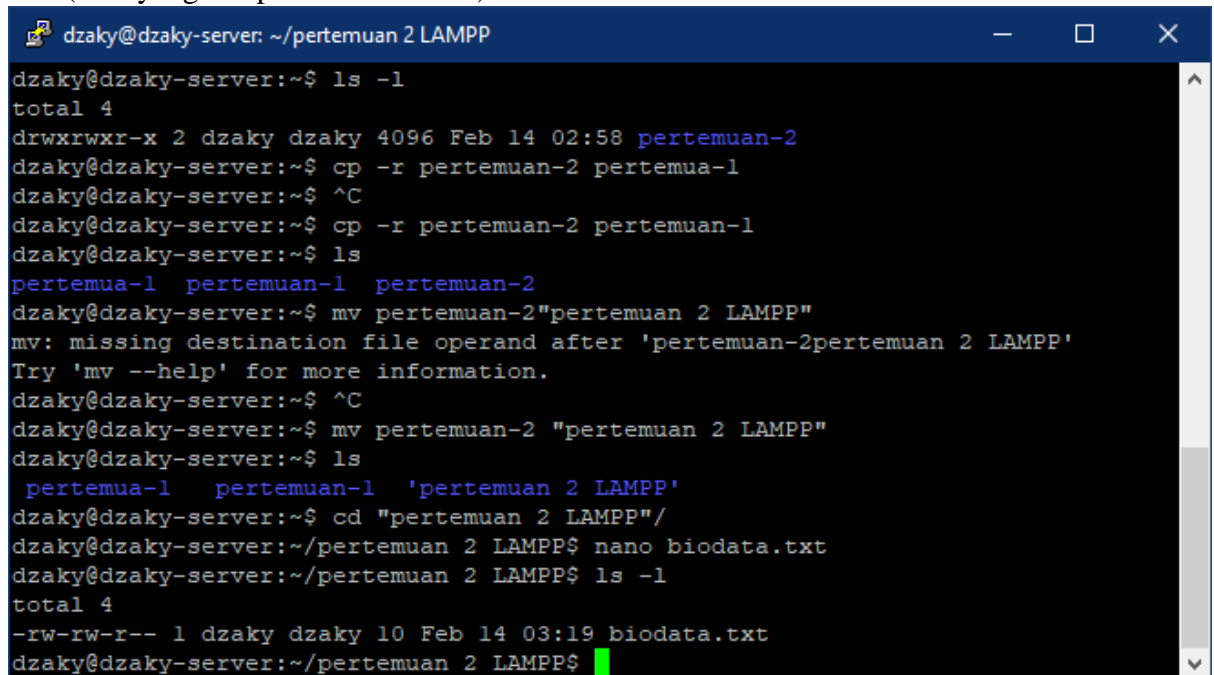


```
dzaky@dzaky-server: ~/pertemuan 2 LAMPP
Ait gaaaiiss
Last login: Fri Feb 14 02:50:56 2020
dzaky@dzaky-server:~$ ls
dzaky@dzaky-server:~$ mkdir pertemuan-2
dzaky@dzaky-server:~$ ls -l
total 4
drwxrwxr-x 2 dzaky dzaky 4096 Feb 14 02:58 pertemuan-2
dzaky@dzaky-server:~$ cp -r pertemuan-2 pertemua-1
dzaky@dzaky-server:~$ ^C
dzaky@dzaky-server:~$ cp -r pertemuan-2 pertemuan-1
dzaky@dzaky-server:~$ ls
pertemua-1  pertemuan-1  pertemuan-2
dzaky@dzaky-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"
mv: missing destination file operand after 'pertemuan-2pertemuan 2 LAMPP'
Try 'mv --help' for more information.
dzaky@dzaky-server:~$ ^C
dzaky@dzaky-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"
dzaky@dzaky-server:~$ ls
pertemua-1  pertemuan-1  'pertemuan 2 LAMPP'
dzaky@dzaky-server:~$ cd "pertemuan 2 LAMPP"/
dzaky@dzaky-server:~/pertemuan 2 LAMPP$
```

9. nano biodata.txt (masukkan NIM , save, exit)



10. ls -l (data yang diinput di nano ada 4)



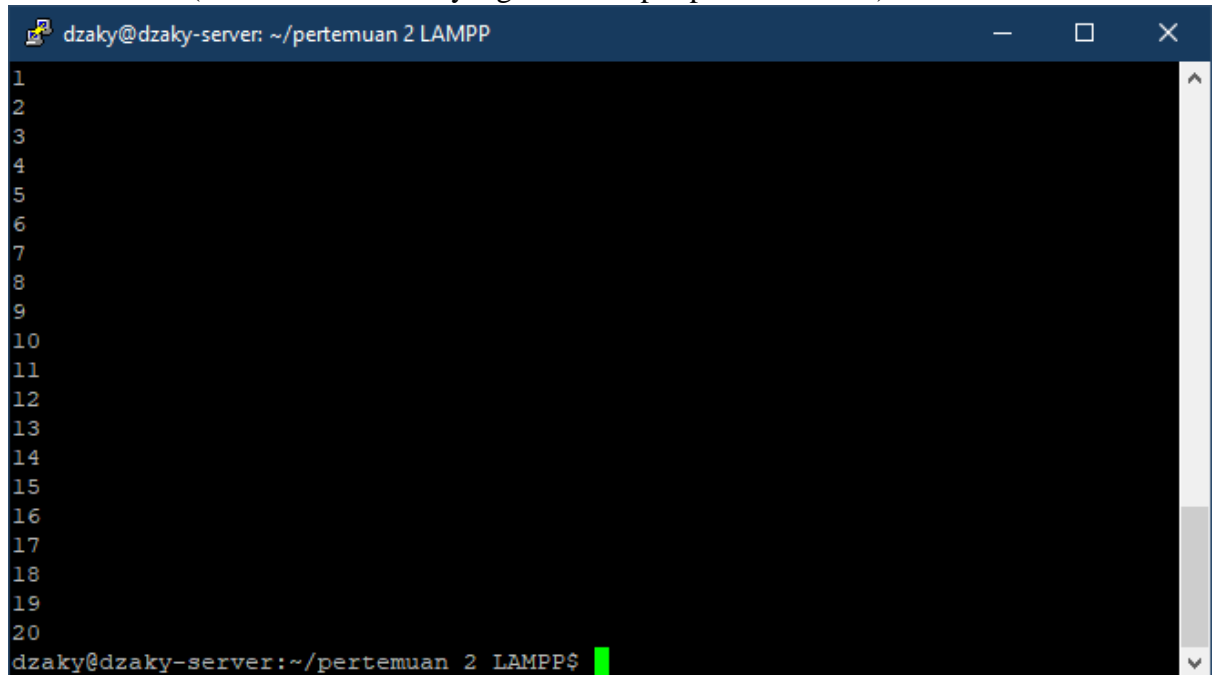
11. cat biodata.txt(mendeklarasikan / memunculkan data yang diinput pada nano)


```
dzaky@dzaky-server: ~/pertemuan 2 LAMPP
drwxrwxr-x 2 dzaky dzaky 4096 Feb 14 02:58 pertemuan-2
dzaky@dzaky-server:~$ cp -r pertemuan-2 pertemua-1
dzaky@dzaky-server:~$ ^C
dzaky@dzaky-server:~$ cp -r pertemuan-2 pertemuan-1
dzaky@dzaky-server:~$ ls
pertemua-1  pertemuan-1  pertemuan-2
dzaky@dzaky-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"
mv: missing destination file operand after 'pertemuan-2pertemuan 2 LAMPP'
Try 'mv --help' for more information.
dzaky@dzaky-server:~$ ^C
dzaky@dzaky-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"
dzaky@dzaky-server:~$ ls
pertemua-1  pertemuan-1  'pertemuan 2 LAMPP'
dzaky@dzaky-server:~$ cd "pertemuan 2 LAMPP"/
dzaky@dzaky-server:~/pertemuan 2 LAMPP$ nano biodata.txt
dzaky@dzaky-server:~/pertemuan 2 LAMPP$ ls -l
total 4
-rw-rw-r-- 1 dzaky dzaky 10 Feb 14 03:19 biodata.txt
dzaky@dzaky-server:~/pertemuan 2 LAMPP$ cat biodata.txt
123170085
dzaky@dzaky-server:~/pertemuan 2 LAMPP$
```

12. nano biodata.txt(input angka 1-20,save,exit)

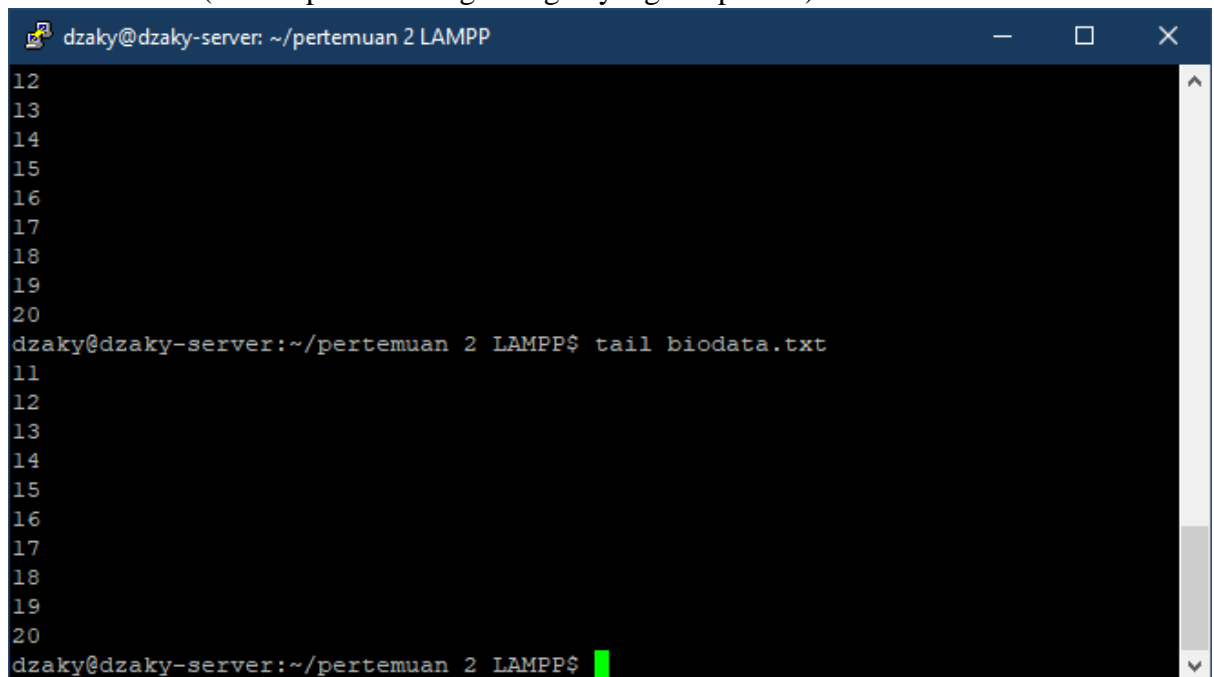
```
GNU nano 2.9.8 biodata.txt
8
9
10
11
12
13
14
15
16
17
18
19
20
[ Wrote 21 lines ]
^G Get Help  ^O Write Out  ^W Where Is   ^K Cut Text   ^J Justify    ^C Cur Pos
^X Exit      ^R Read File  ^\ Replace    ^U Uncut Text ^T To Spell   ^_ Go To Line
```

13. cat biodata.txt(memunculkan data yang telah diinput pada nano text)



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

14. tail biodata.txt (menampilkan setengah angka yang diinputkan)



```
dzaky@dzaky-server: ~/pertemuan 2 LAMPP
12
13
14
15
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18
19
20
dzaky@dzaky-server:~/pertemuan 2 LAMPP$ tail biodata.txt
11
12
13
14
15
16
17
18
19
20
dzaky@dzaky-server:~/pertemuan 2 LAMPP$
```