

Pertemuan 2

Pengenalan VMWare Workstation dan Linux OS

I. Pengenalan VMWare Workstation

Conceptual Application

Secara konsep letak VMWare sebagai wadah dari virtual OS, letak virtual OS diatas vmware workstation.

Memanfaatkan Fasilitas Swapping.

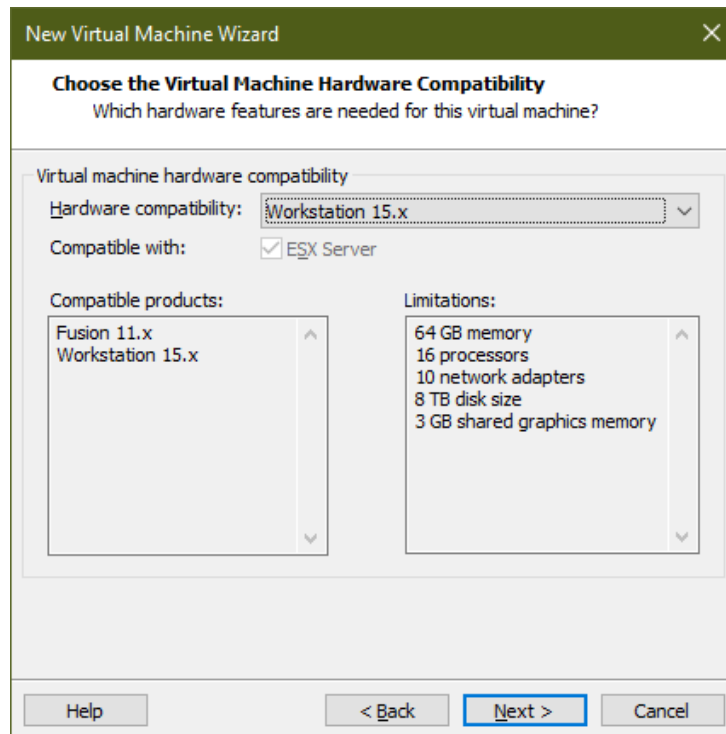
Setelah instalasi VMWare akan menimbulkan konflik dengan XAMPP maka perlu dikonfigurasi kembali port pada VMWare.

Tahapan dalam membuat virtual OS di VMWare

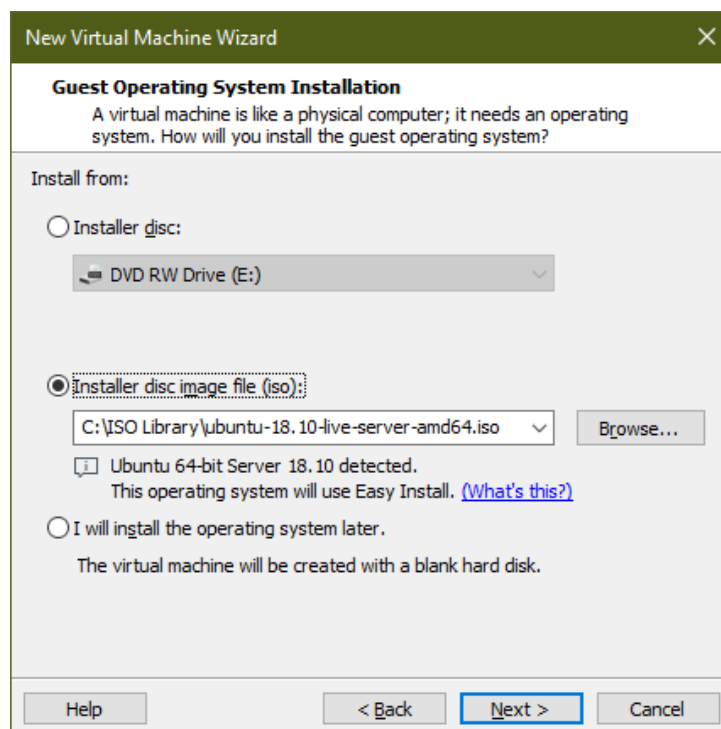
1. Pertama, buka aplikasi VMWare kemudian pilih menu *Create a New Virtual Machine* kemudian akan muncul window seperti gambar dibawah lalu pilih *custom*



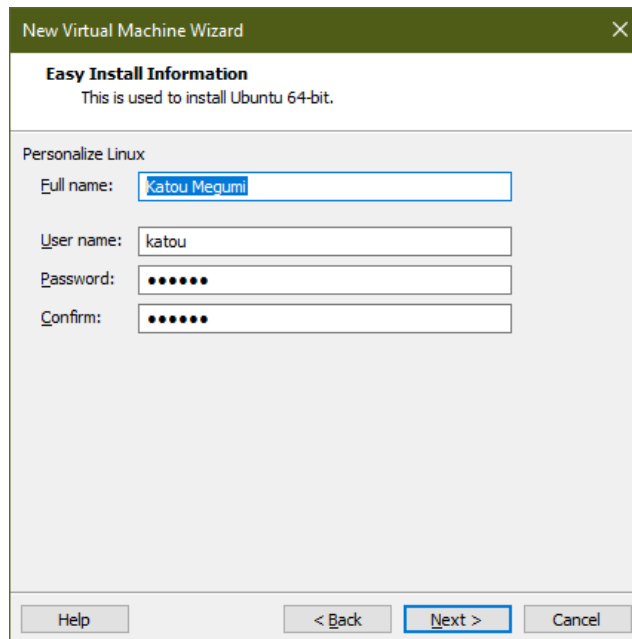
2. Kemudian akan muncul window seperti di bawah, untuk *Hardware compatibility* pilih *Workstation 15.x* kemudian klik *Next*



3. Kemudian pilih Instalasi Filenya, dalam hal ini kita menggunakan File ISO Ubuntu 18.0 setelah dipilih kemudian pilih *Next*

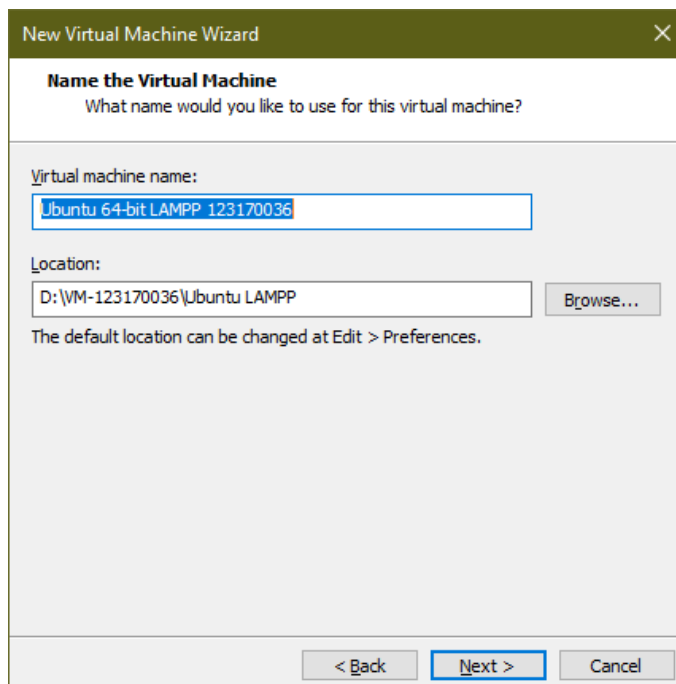


4. Kemudian akan muncul window seperti dibawah isi sesuai keinginan



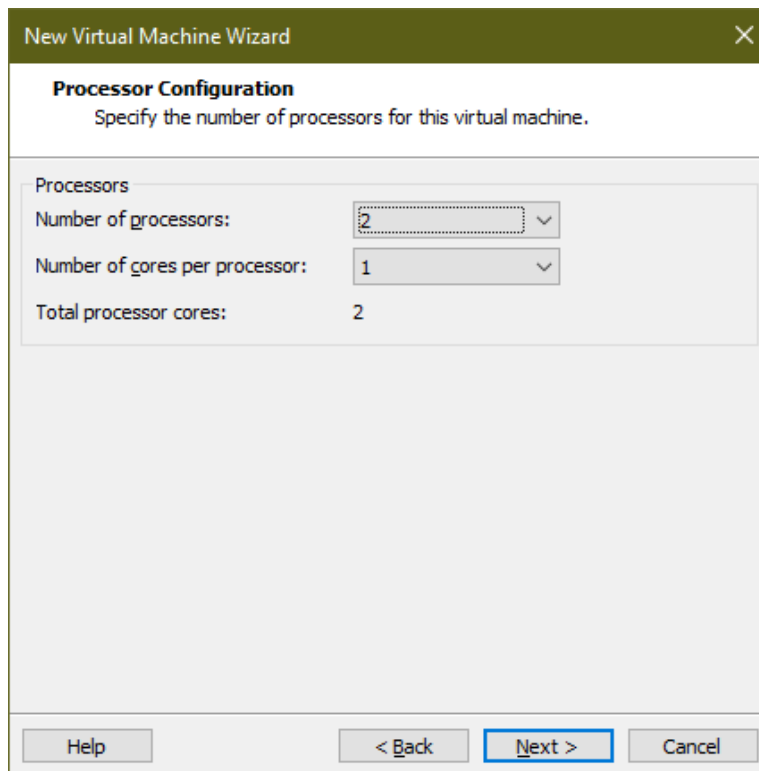
The screenshot shows the 'New Virtual Machine Wizard' window with the title bar 'New Virtual Machine Wizard' and a close button. The main heading is 'Easy Install Information' with the subtitle 'This is used to install Ubuntu 64-bit.' Below this, the section 'Personalize Linux' contains four input fields: 'Full name:' with the text 'Katou Megumi', 'User name:' with the text 'katou', 'Password:' with masked characters, and 'Confirm:' with masked characters. At the bottom, there are four buttons: 'Help', '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a blue border.

5. Klik Next, beri nama virtual name sesuai keinginan

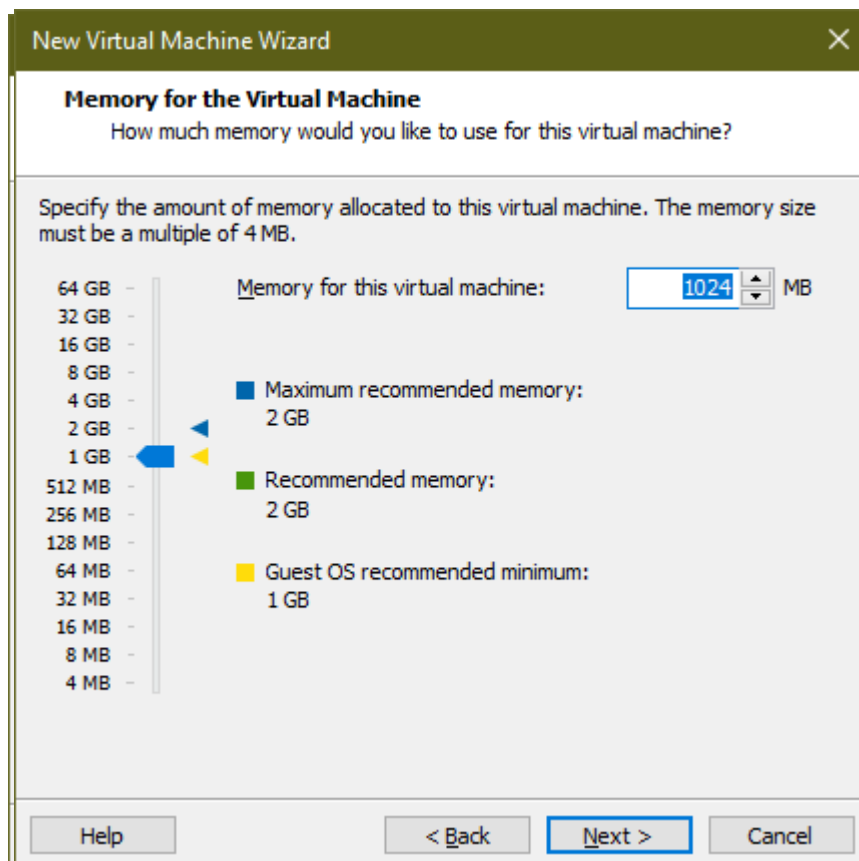


The screenshot shows the 'New Virtual Machine Wizard' window with the title bar 'New Virtual Machine Wizard' and a close button. The main heading is 'Name the Virtual Machine' with the subtitle 'What name would you like to use for this virtual machine?'. Below this, the section 'Virtual machine name:' contains a text box with the text 'Ubuntu 64-bit LAMPP 123170036'. The section 'Location:' contains a text box with the text 'D:\VM-123170036\Ubuntu LAMPP' and a 'Browse...' button. Below the text box, there is a note: 'The default location can be changed at Edit > Preferences.' At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a blue border.

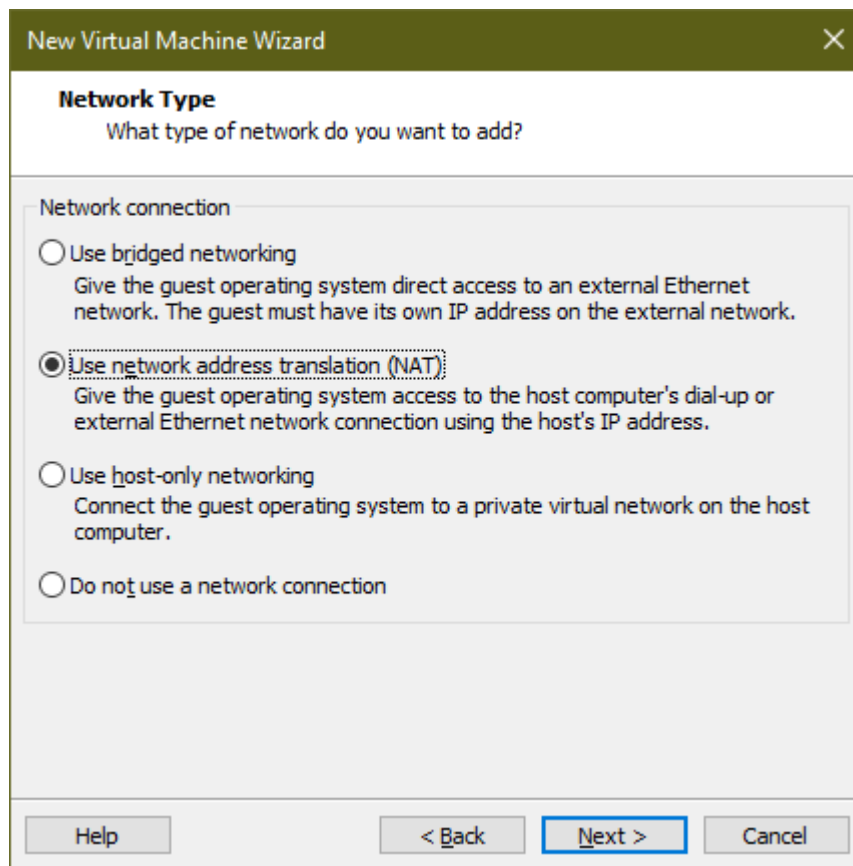
6. Klik Next, isi number of processors seperti dibawah. Untuk menghindari lagging, kita gunakan batas minimal.



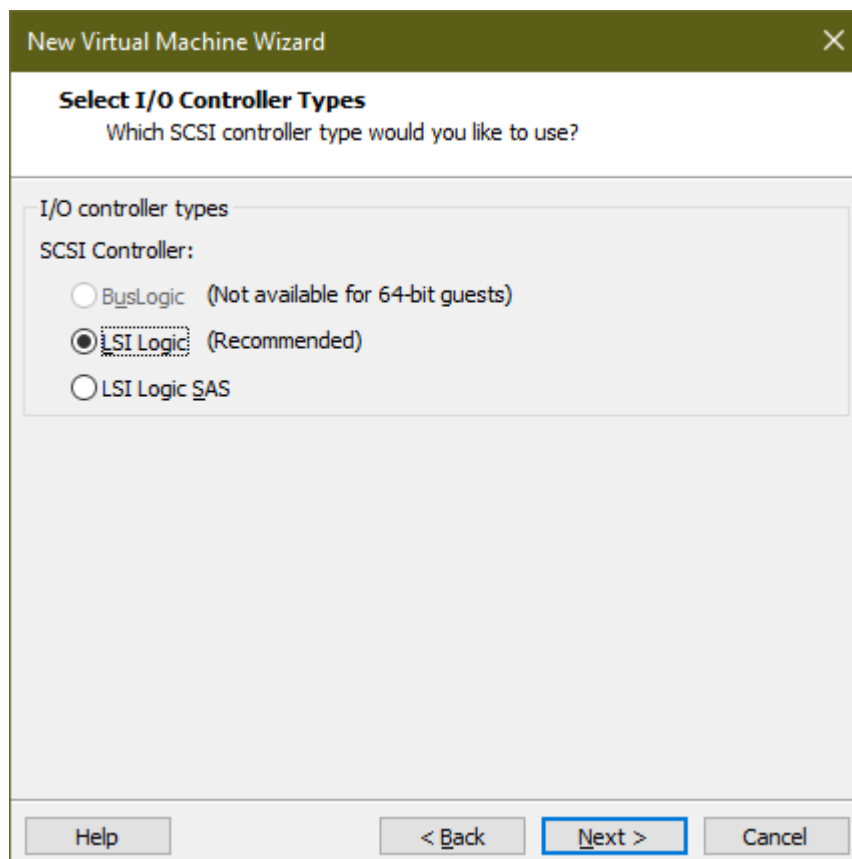
7. Isi sebanyak 1024 MB, alasannya sama seperti diatas. Lalu klik Next



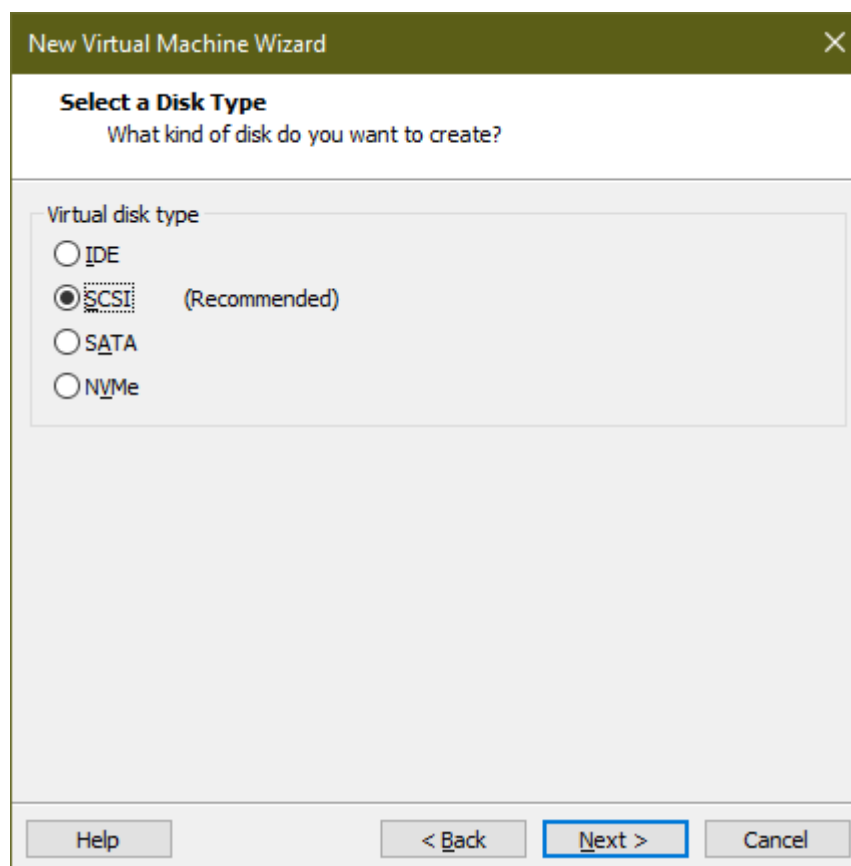
8. Pilih NAT dalam langkah kali ini, kemudian klik Next



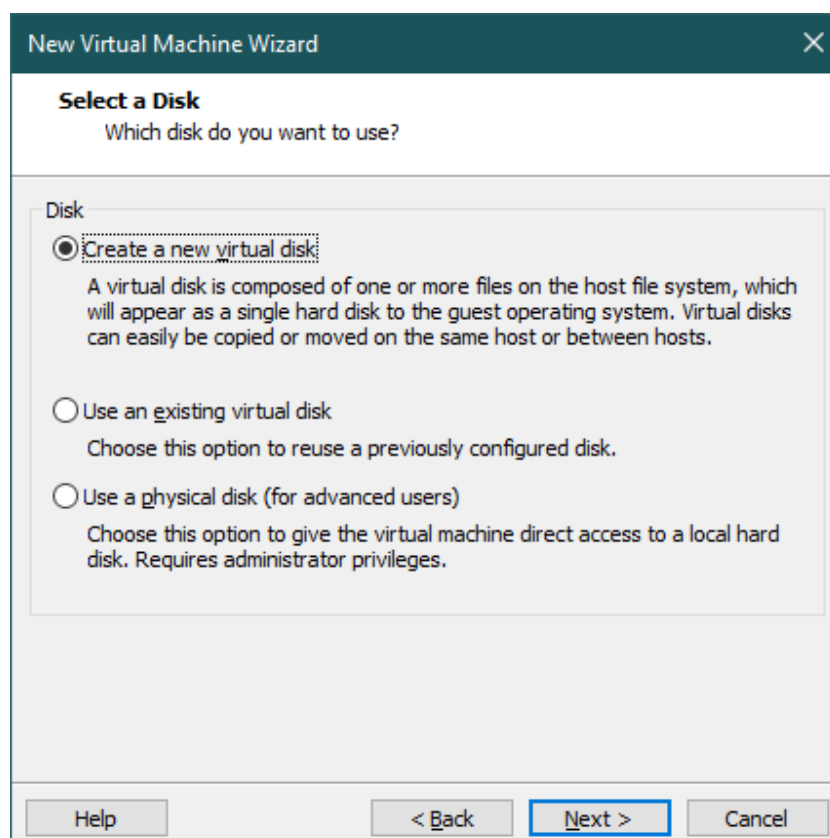
9. Kemudian pilih LSI Logic, kemudian klik next



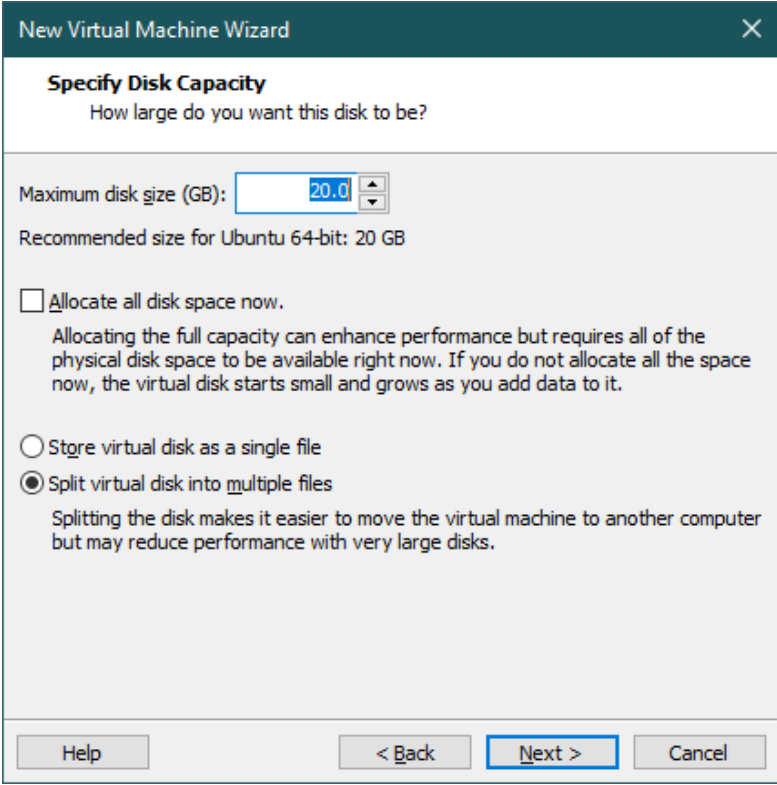
10. Kemudian pilih SCSI



11. Pilih Create a new virtual disk



12. Klik Next



The screenshot shows the 'Specify Disk Capacity' step of the 'New Virtual Machine Wizard'. The title bar reads 'New Virtual Machine Wizard' with a close button. The main heading is 'Specify Disk Capacity' with the subtitle 'How large do you want this disk to be?'. A text input field for 'Maximum disk size (GB):' contains the value '20.0'. Below it, a note states 'Recommended size for Ubuntu 64-bit: 20 GB'. There are two radio button options: 'Allocate all disk space now.' (unchecked) and 'Split virtual disk into multiple files' (checked). A descriptive paragraph explains that allocating full capacity enhances performance but requires all physical space, while splitting the disk makes it easier to move but may reduce performance. At the bottom, there are four buttons: 'Help', '< Back', 'Next >', and 'Cancel'.

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

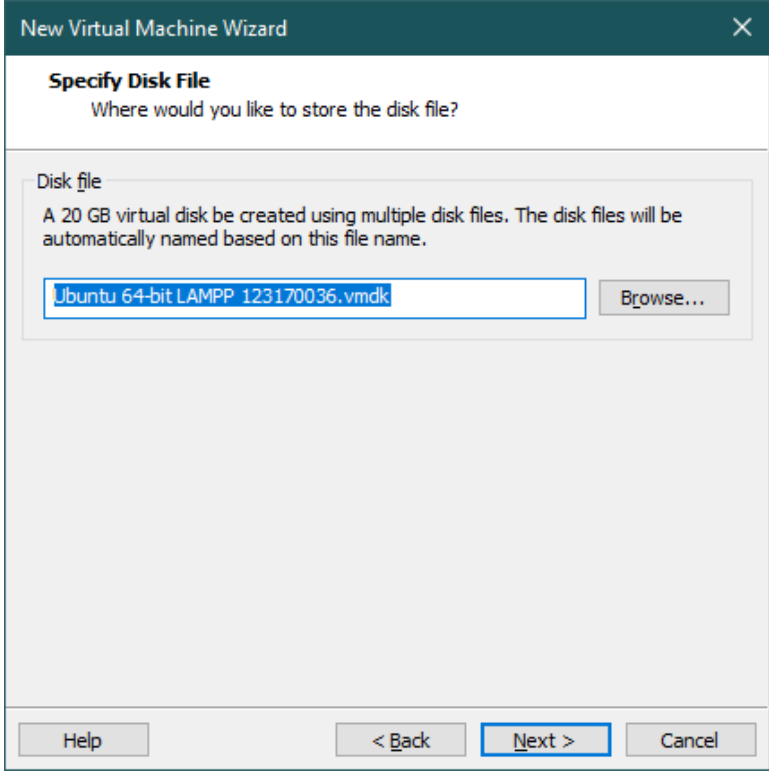
☐ Allocate all disk space now.
Allocating the full capacity can enhance performance but requires all of the physical disk space to be available right now. If you do not allocate all the space now, the virtual disk starts small and grows as you add data to it.

☐ 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

13. Klik Next



The screenshot shows the 'Specify Disk File' step of the 'New Virtual Machine Wizard'. The title bar reads 'New Virtual Machine Wizard' with a close button. The main heading is 'Specify Disk File' with the subtitle 'Where would you like to store the disk file?'. A section titled 'Disk file' contains a paragraph: 'A 20 GB virtual disk be created using multiple disk files. The disk files will be automatically named based on this file name.' Below this is a text input field containing 'Ubuntu 64-bit LAMPP 123170036.vmdk' and a 'Browse...' button. At the bottom, there are four buttons: 'Help', '< Back', 'Next >', and 'Cancel'.

New Virtual Machine Wizard

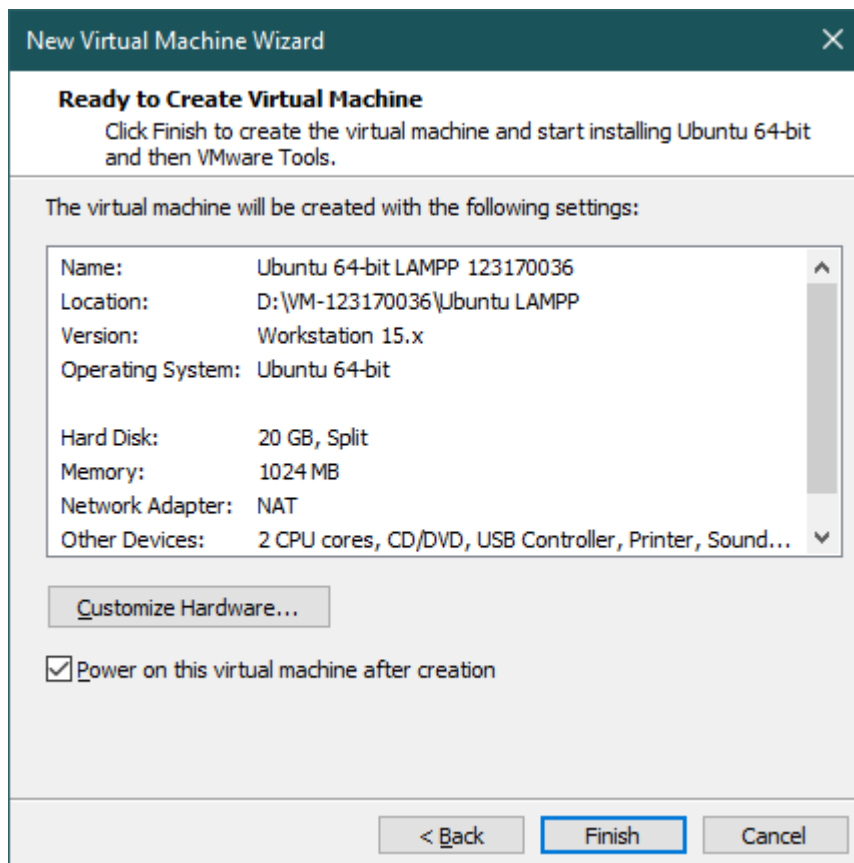
Specify Disk File
Where would you like to store the disk file?

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.

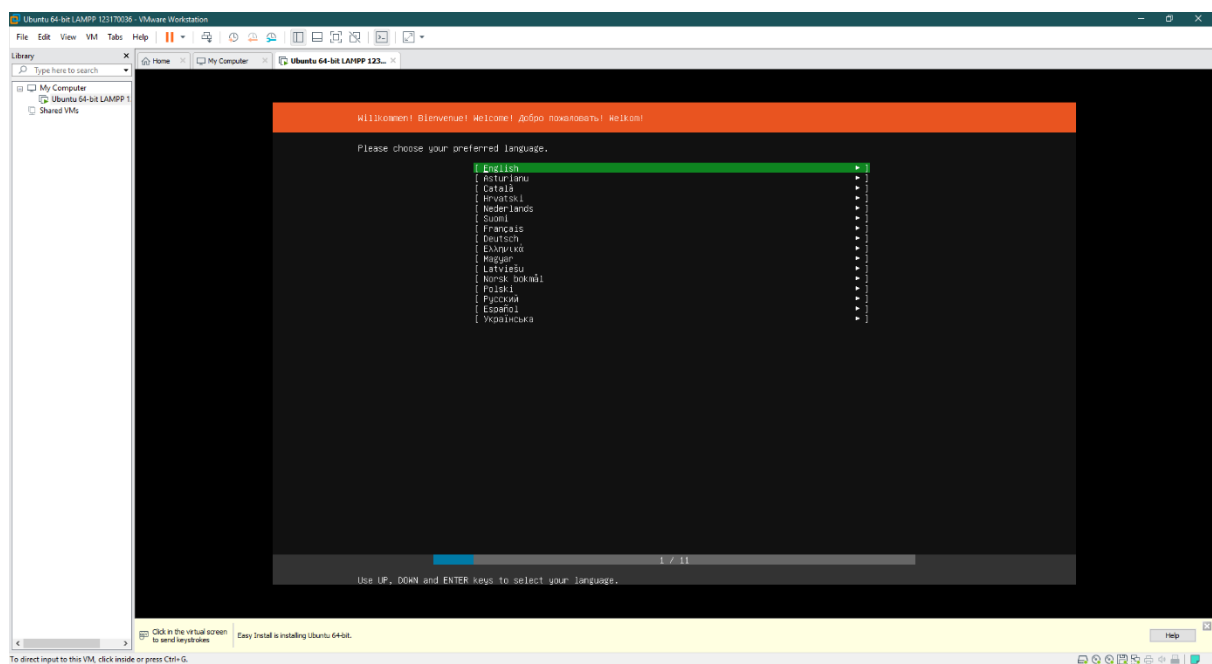
Browse...

Help < Back Next > Cancel

14. Lalu Finish

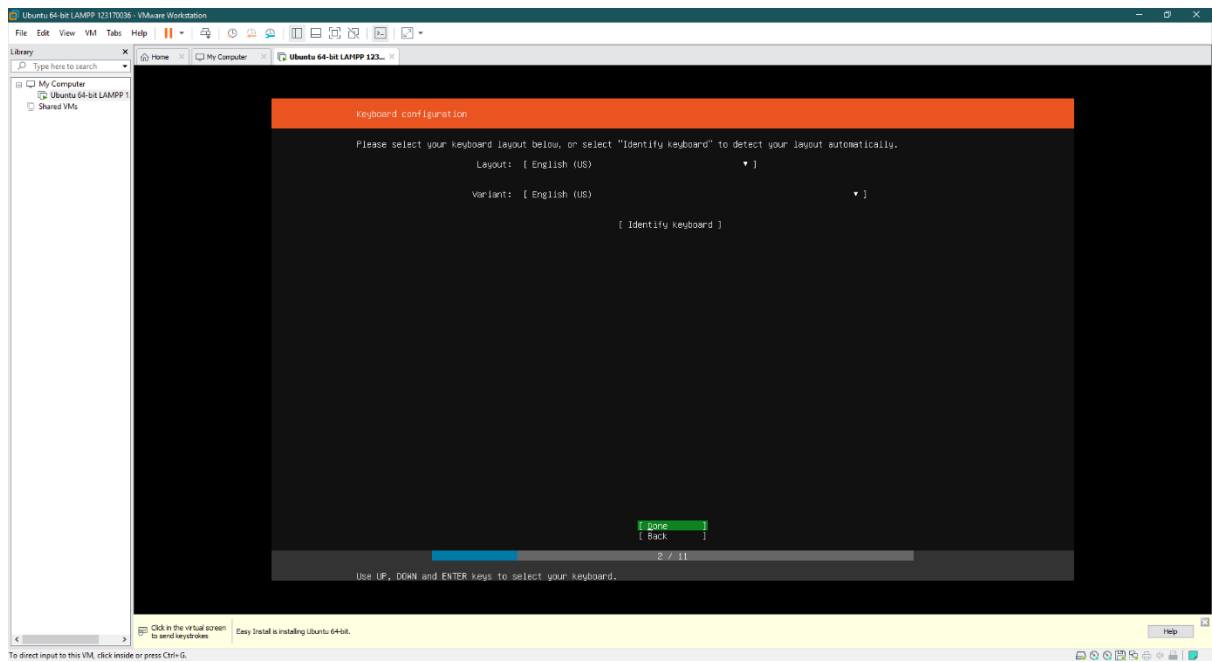


15. Untuk berinteraksi dengan VMWare tekan CTRL+G atau untuk kembali ke windows tekan CTRL+A

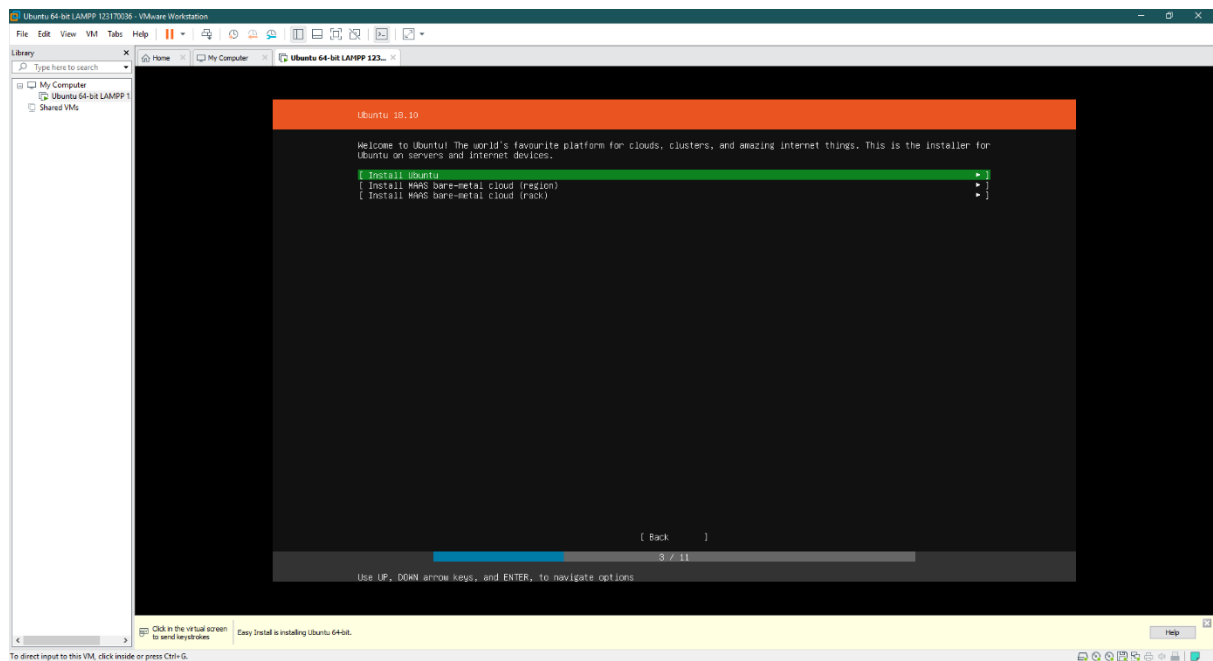


Kemudian setelah proses instalasi akan tampil seperti tampilan diatas.

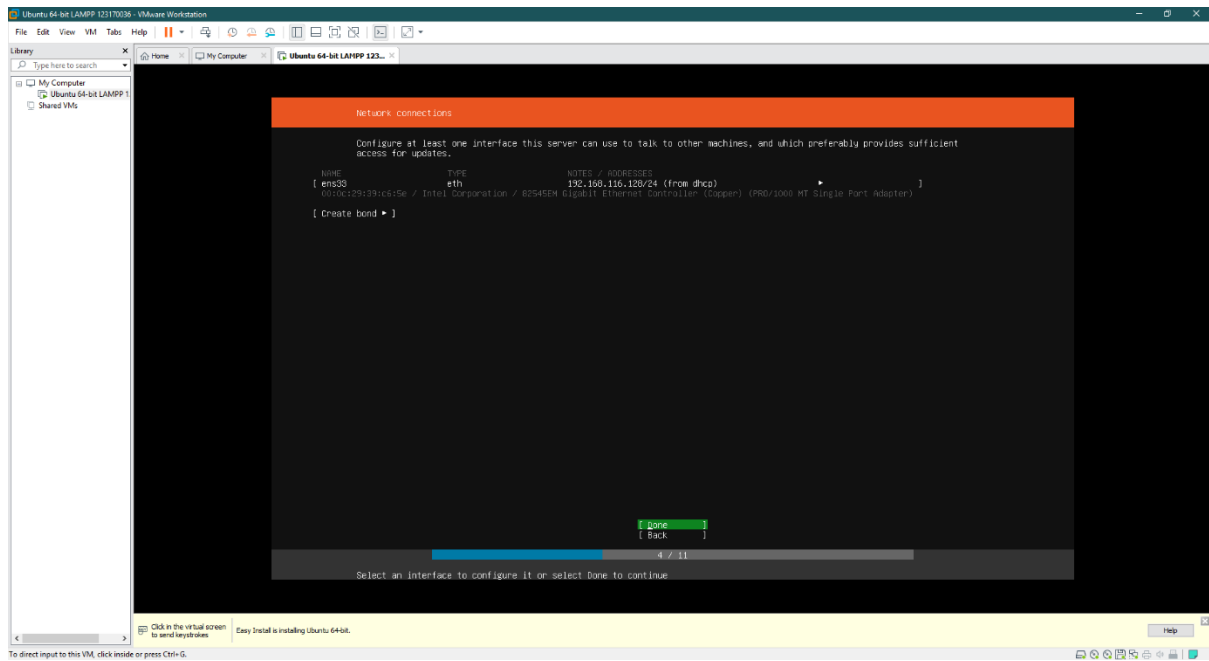
16. Pilih keyboard layout, sesuaikan secara default



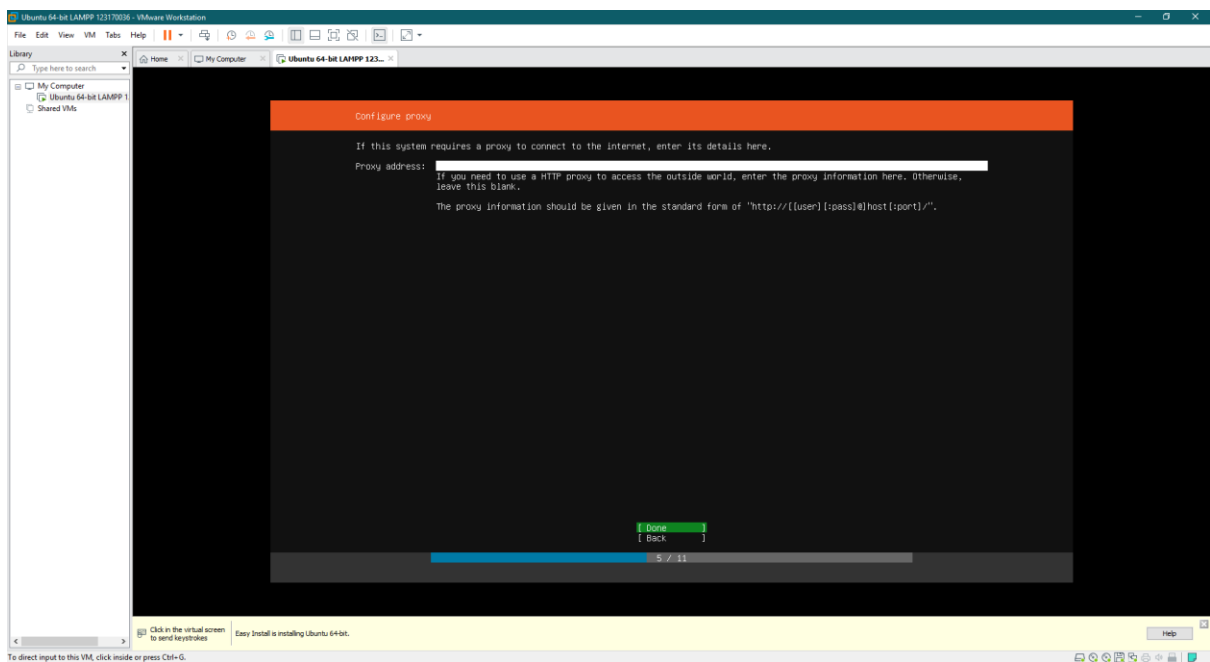
17. Kemudian pilih Ubuntu



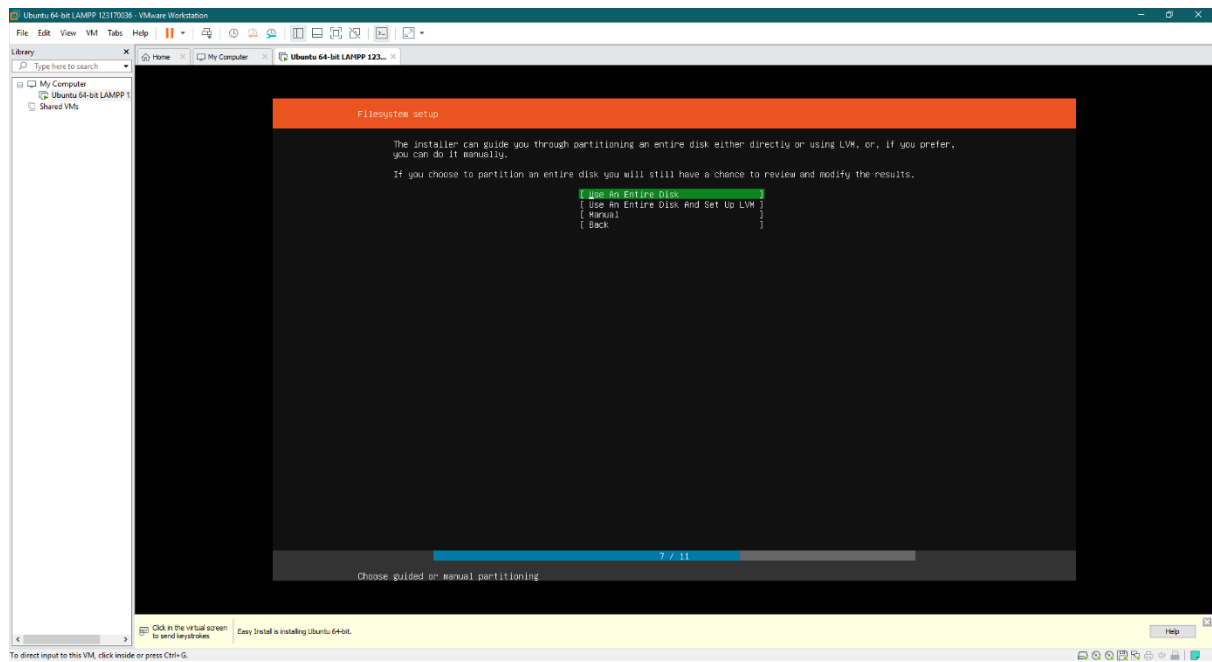
18. Kemudian Next



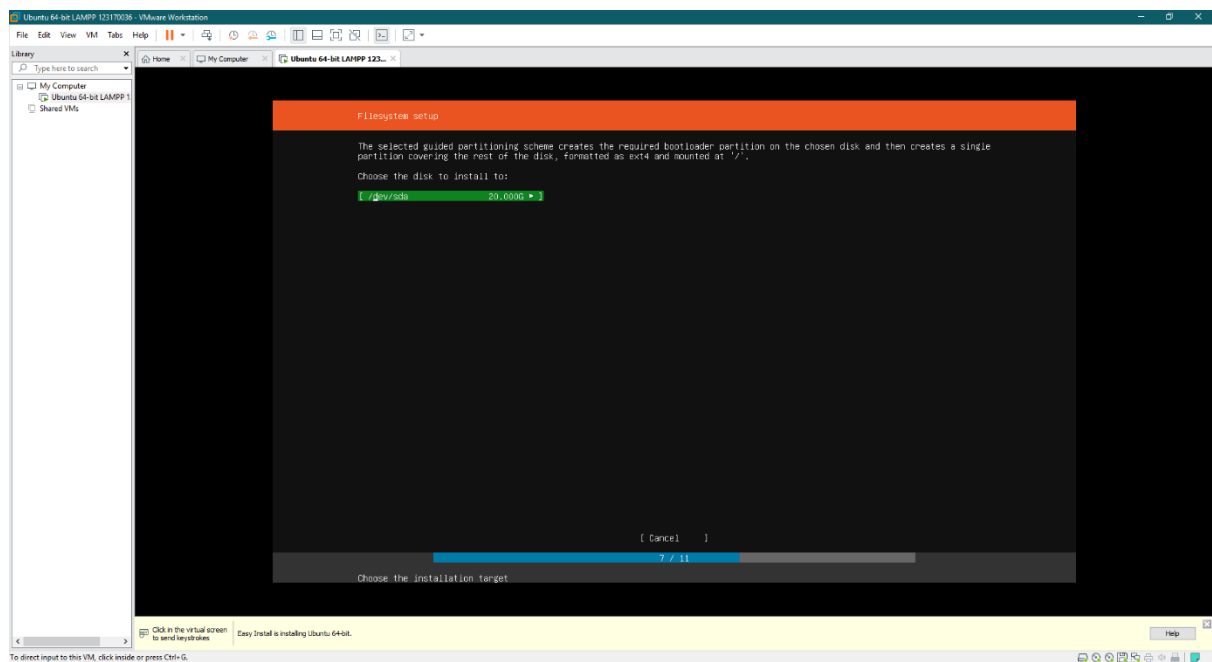
19. Kosongkan, Next



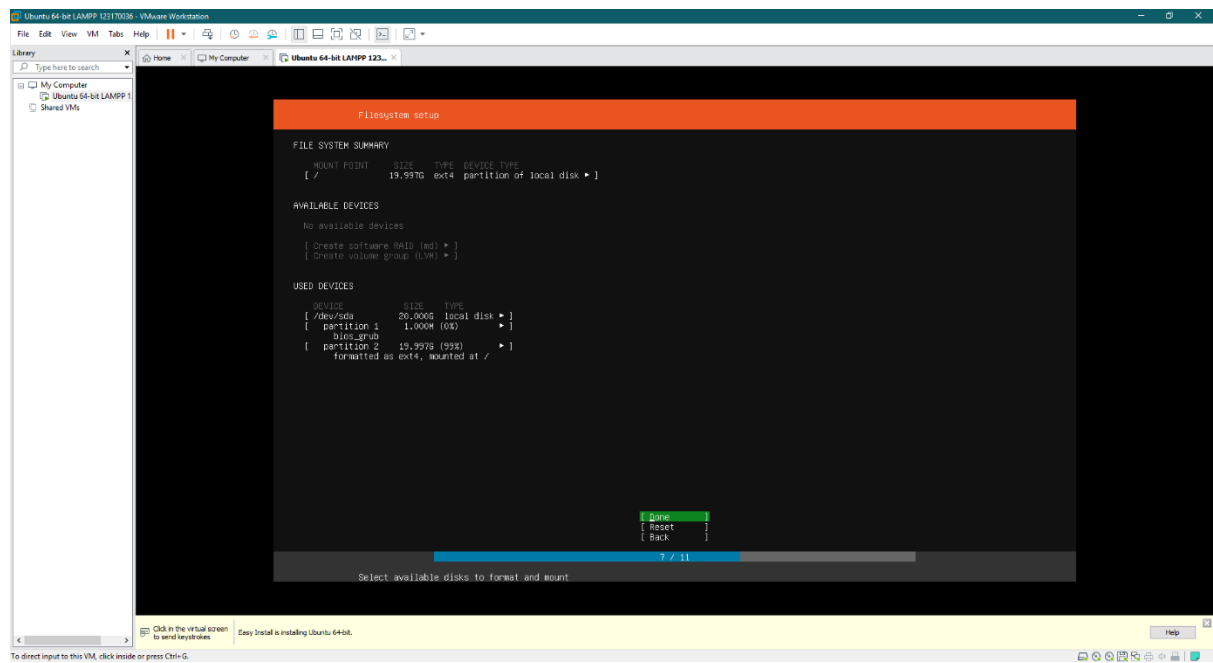
20. Kemudian, Pilih Use an Entire Disk, Kemudian Next



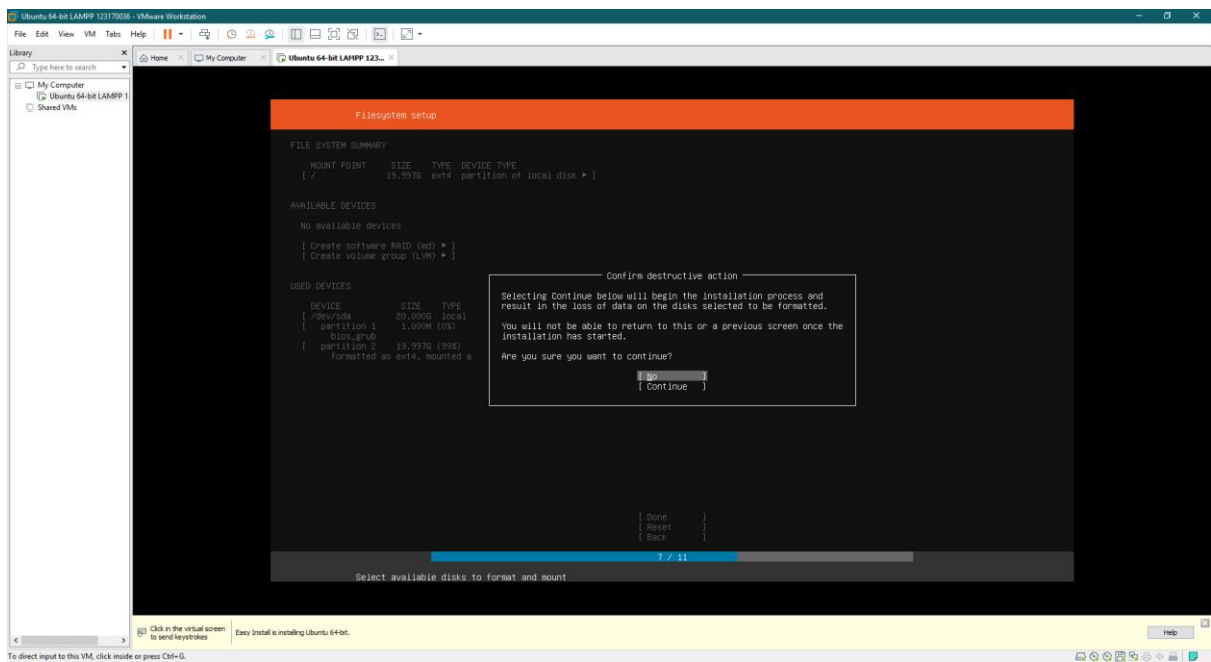
21. Kemudian klik Next



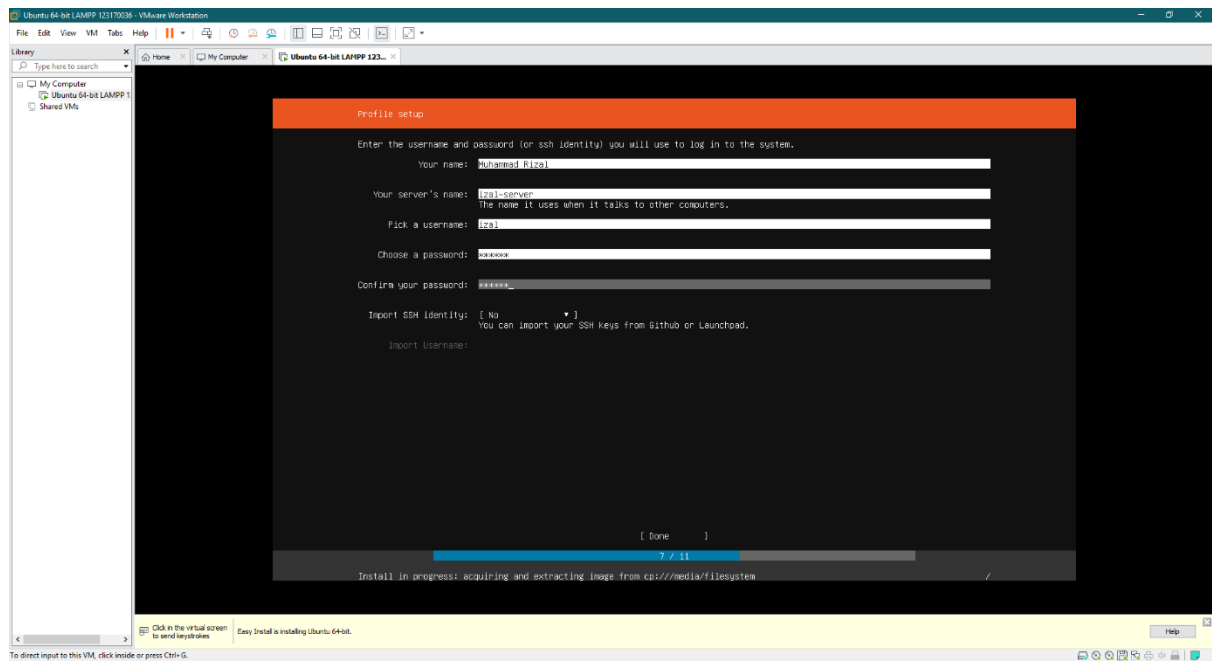
22. Kemudian, akan tampil seperti berikut



23. Klik Ok



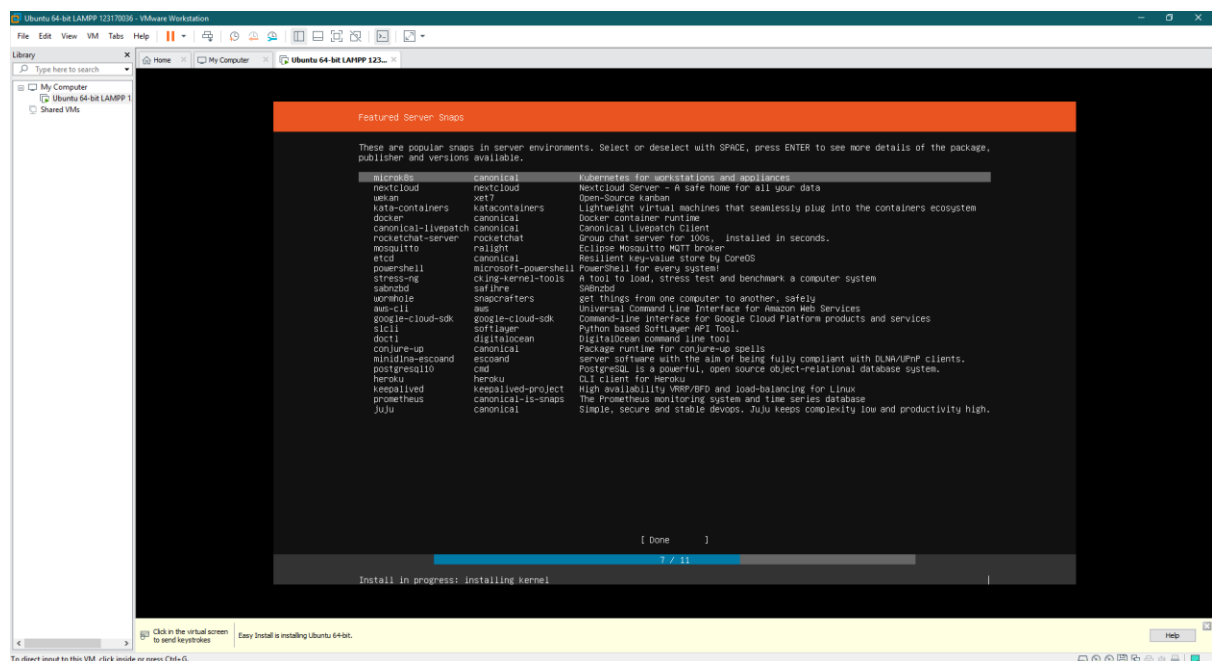
24. Kemudian isi data seperti berikut :



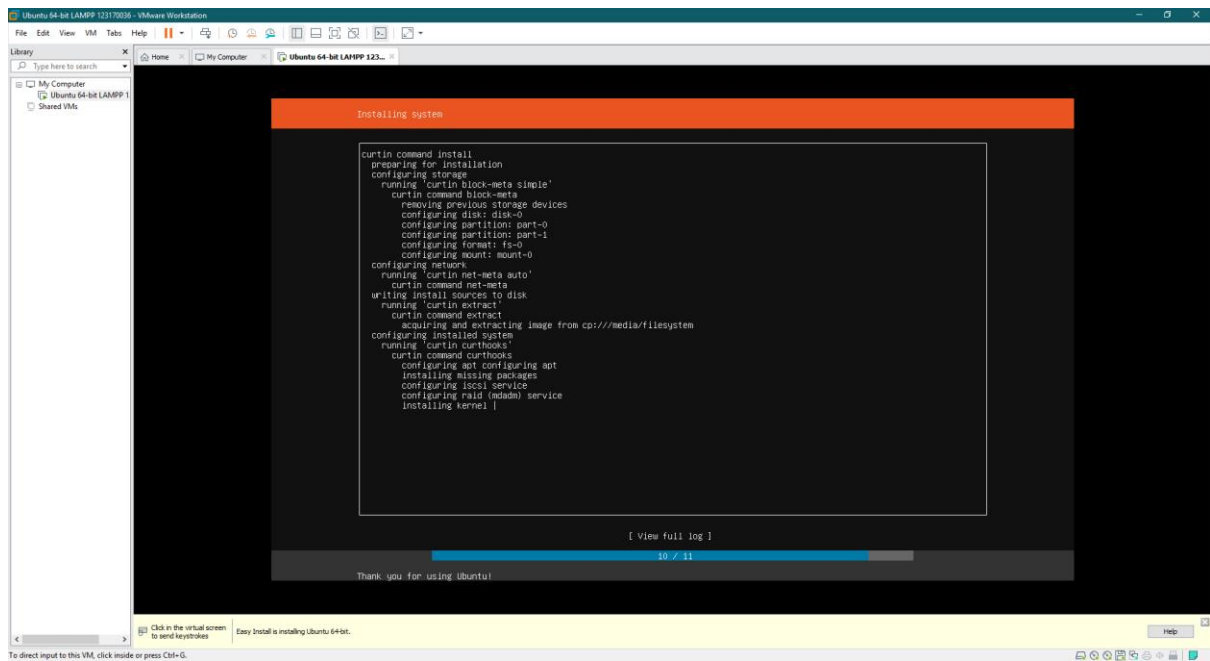
Username: izal

Password: 354123

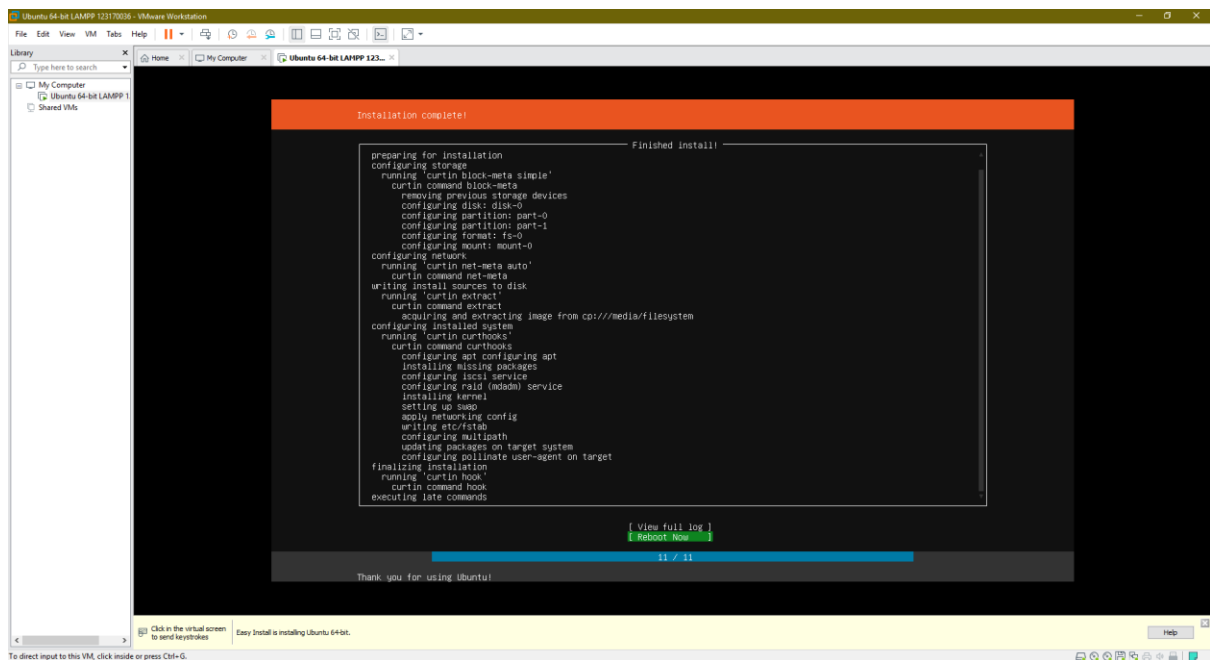
25. Dalam opsi ini akan muncul daftar add-on yang diperlukan, dalam hal ini kita cukup next.



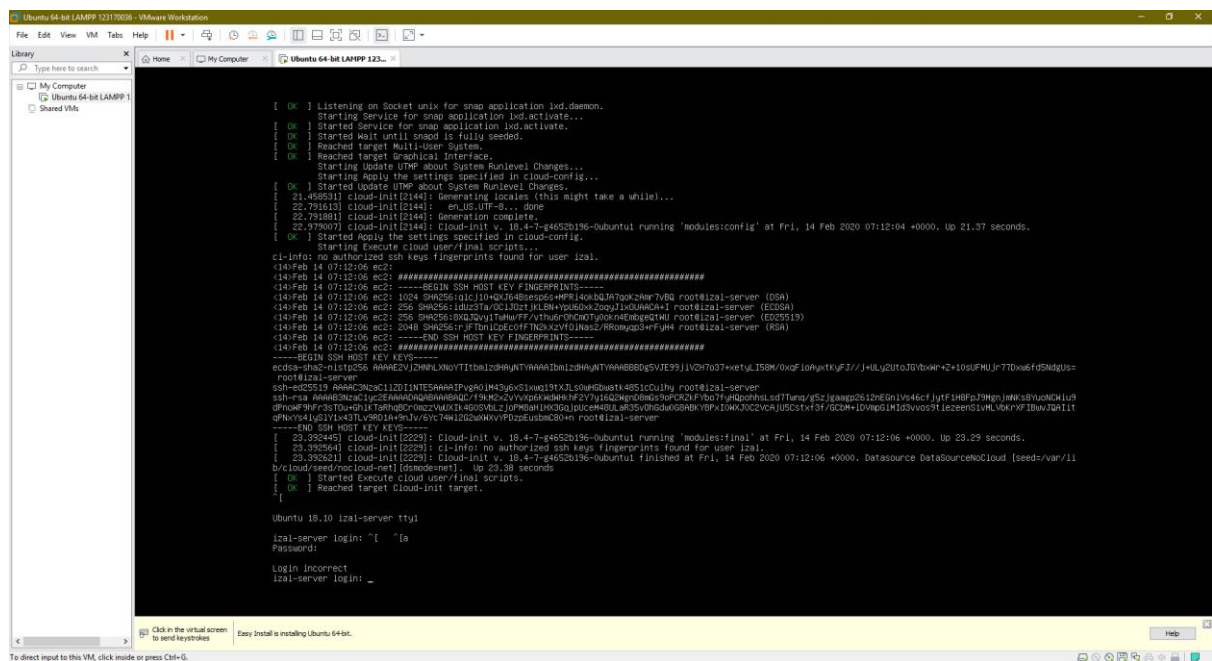
26. Kemudian akan proses instalasi kernel seperti tampilan berikut



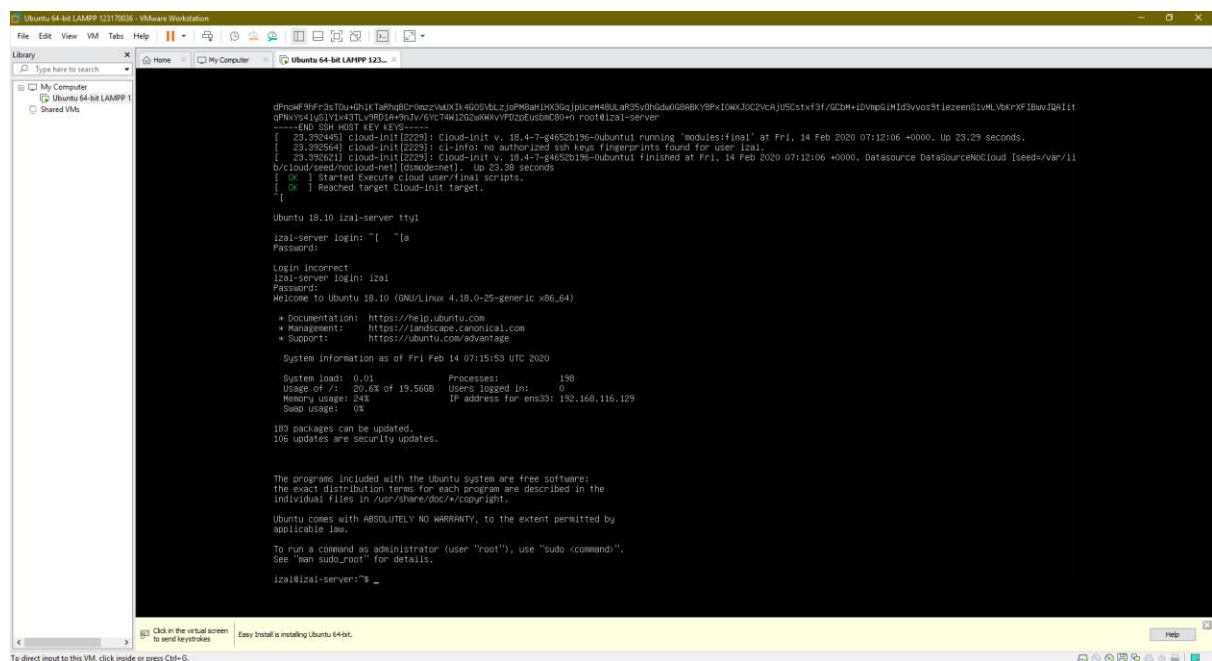
Kemudian jika sudah seperti berikut, klik *Reboot now*



Kemudian login, jika proses telah selesai.



Kemudian, setelah login ketikkan *sudo su* untuk mengganti akses ke root.



Untuk kembali ke akun asli, ketikkan *exit*

```
izal@izal-server:~$ sudo su
[sudo] password for izal:
root@izal-server:/home/izal# _
```

Untuk tampilan sebagai root akan tampil seperti diatas. *root@izal-server*

Untuk mengganti MOTD(Message of The Day) atau welcome screen kita harus konfigurasi *nano* */etc/motd* kemudian isi welcome screen sesuai keinginan.

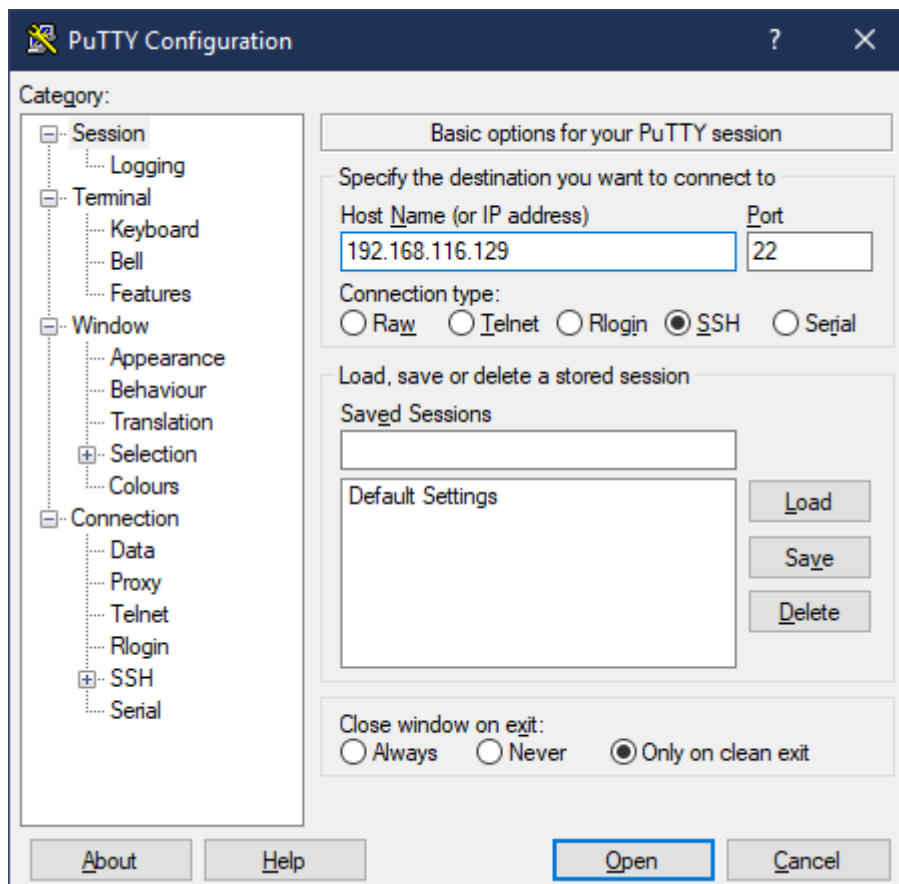
Kemudian untuk melihat IP bisa menggunakan perintah *ifconfig*

```
izal@izal-server:~$ ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.116.129 netmask 255.255.255.0 broadcast 192.168.116.255
    inet6 fe80::20c:29ff:fe39:c65e prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:39:c6:5e txqueuelen 1000 (Ethernet)
    RX packets 288 bytes 68601 (68.6 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 127 bytes 18573 (18.5 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

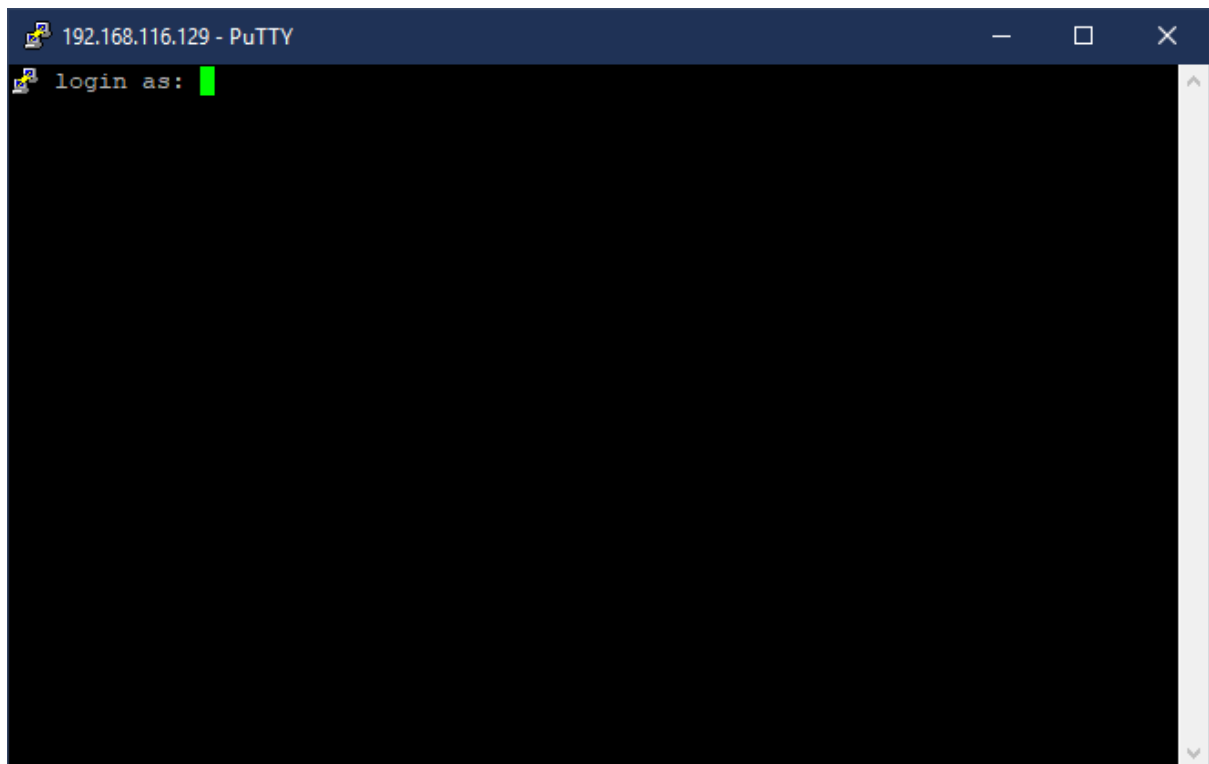
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 216 bytes 17020 (17.0 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 216 bytes 17020 (17.0 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

izal@izal-server:~$ _
```

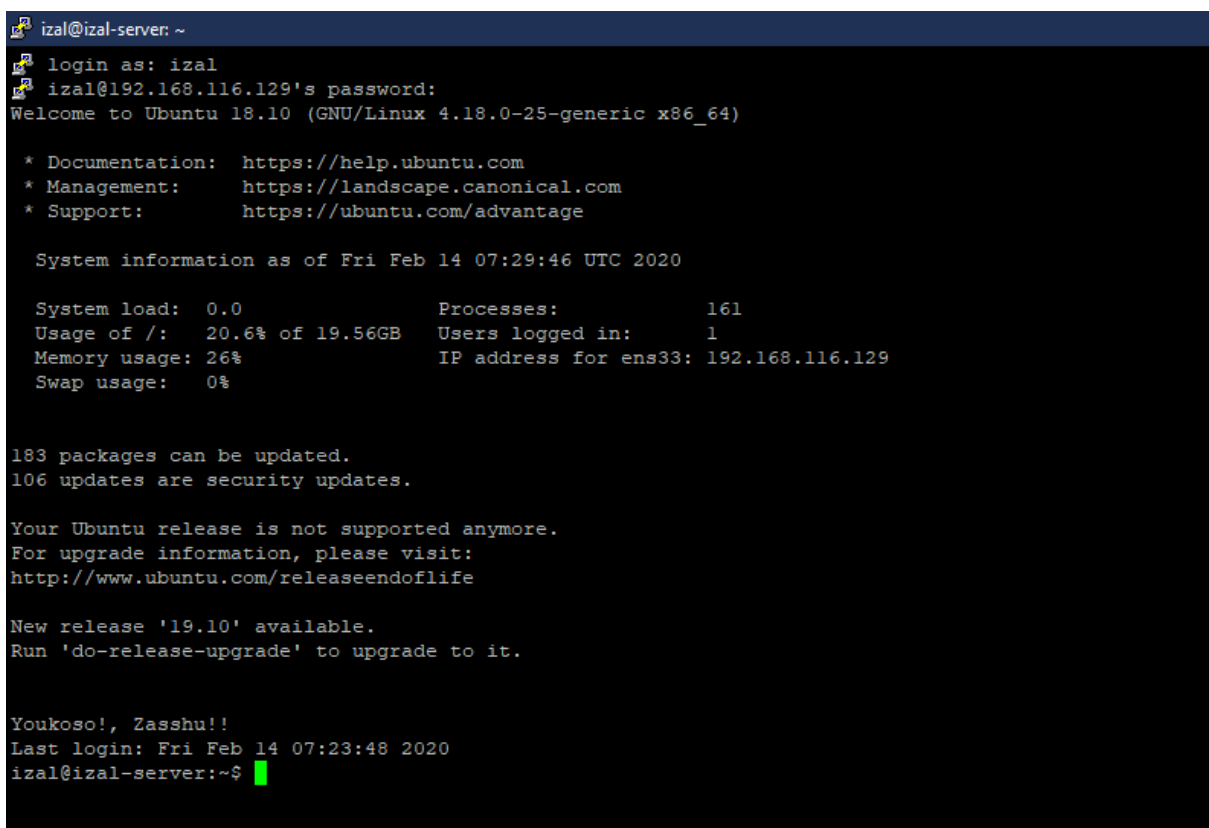
Lalu bukan IP Address Virtual OS tadi di Aplikasi Putty



Klik Open, Lalu Klik Yes. Kemudian akan muncul window command prompt seperti dibawah.



Lalu login akan muncul tampilan seperti berikut :



Kemudian untuk membuat folder di virtual os tersebut seperti berikut.

ls : Perintah untuk menampilkan list folder atau file

```
izal@izal-server:~$ ls -l
total 4
drwxrwxr-x 2 izal izal 4096 Feb 14 07:32 pertemuan-2
izal@izal-server:~$
```

ls -l : menampilkan tampilan seperti diatas, list folder beserta user login dan tanggal.

mkdir <nama-folder> : Perintah diatas untuk membuat folder

```
izal@izal-server:~$ mkdir pertemuan-2
izal@izal-server:~$ ls
pertemuan-2
izal@izal-server:~$
```

copy -r <nama-folder1> <nama-folder2> : Menyalin folder itu sendiri (recursive)

```
izal@izal-server:~$ cp -r pertemuan-2 pertemuan-1
izal@izal-server:~$ dir
pertemuan-1  pertemuan-2
izal@izal-server:~$ ls
pertemuan-1  pertemuan-2
izal@izal-server:~$
```

Untuk melihat perintah lanjutan dari perintah *copy* bisa menggunakan perintah *copy --help* akan tampil informasi tentang perintah *copy* lebih lanjut seperti dibawah

```
izal@izal-server:~$ cp --help
Usage: cp [OPTION]... [-T] SOURCE DEST
       or: cp [OPTION]... SOURCE... DIRECTORY
       or: cp [OPTION]... -t DIRECTORY SOURCE...
Copy SOURCE to DEST, or multiple SOURCE(s) to DIRECTORY.

Mandatory arguments to long options are mandatory for short options too.
-a, --archive                same as -dR --preserve=all
--attributes-only            don't copy the file data, just the attributes
--backup[=CONTROL]          make a backup of each existing destination file
-b                           like --backup but does not accept an argument
--copy-contents              copy contents of special files when recursive
-d                           same as --no-dereference --preserve=links
-f, --force                  if an existing destination file cannot be
                             opened, remove it and try again (this option
                             is ignored when the -n option is also used)
-i, --interactive            prompt before overwrite (overrides a previous -n
                             option)
-H                           follow command-line symbolic links in SOURCE
-l, --link                   hard link files instead of copying
-L, --dereference            always follow symbolic links in SOURCE
-n, --no-clobber             do not overwrite an existing file (overrides
                             a previous -i option)
-P, --no-dereference         never follow symbolic links in SOURCE
-P                             same as --preserve=mode,ownership,timestamps
--preserve[=ATTR_LIST]      preserve the specified attributes (default:
                             mode,ownership,timestamps), if possible
                             additional attributes: context, links, xattr,
                             all
--no-preserve=ATTR_LIST     don't preserve the specified attributes
--parents                   use full source file name under DIRECTORY
-R, --recursive              copy directories recursively
--reflink[=WHEN]            control clone/CoW copies. See below
--remove-destination         remove each existing destination file before
                             attempting to open it (contrast with --force)
--sparse=WHEN               control creation of sparse files. See below
--strip-trailing-slashes     remove any trailing slashes from each SOURCE
                             argument
-s, --symbolic-link          make symbolic links instead of copying
-S, --suffix=SUFFIX          override the usual backup suffix
-t, --target-directory=DIRECTORY copy all SOURCE arguments into DIRECTORY
-T, --no-target-directory    treat DEST as a normal file
-u, --update                 copy only when the SOURCE file is newer
                             than the destination file or when the
                             destination file is missing
-v, --verbose                explain what is being done
-x, --one-file-system         stay on this file system
-Z                           set SELinux security context of destination
                             file to default type
--context[=CTX]             like -Z, or if CTX is specified then set the
                             SELinux or SMACK security context to CTX
--help                      display this help and exit
--version                   output version information and exit

By default, sparse SOURCE files are detected by a crude heuristic and the
corresponding DEST file is made sparse as well. That is the behavior
selected by --sparse=auto. Specify --sparse=always to create a sparse DEST
file whenever the SOURCE file contains a long enough sequence of zero bytes.
Use --sparse=never to inhibit creation of sparse files.

When --reflink[=always] is specified, perform a lightweight copy, where the
data blocks are copied only when modified. If this is not possible the copy
fails, or if --reflink=auto is specified, fall back to a standard copy.
```

```

izal@izal-server:~$ mv pertemuan-2 "pertemuan-2-LAMPP"
izal@izal-server:~$ dir
pertemuan-1  pertemuan-2-LAMPP
izal@izal-server:~$ █

```

mv <old-folder> <new-folder> : Untuk mengganti nama folder

```

izal@izal-server:~$ mv --help
Usage: mv [OPTION]... [-T] SOURCE DEST
       or: mv [OPTION]... SOURCE... DIRECTORY
       or: mv [OPTION]... -t DIRECTORY SOURCE...
Rename SOURCE to DEST, or move SOURCE(s) to DIRECTORY.

Mandatory arguments to long options are mandatory for short options too.
  --backup[=CONTROL]  make a backup of each existing destination file
  -b                  like --backup but does not accept an argument
  -f, --force          do not prompt before overwriting
  -i, --interactive    prompt before overwrite
  -n, --no-clobber     do not overwrite an existing file
If you specify more than one of -i, -f, -n, only the final one takes effect.
  --strip-trailing-slashes  remove any trailing slashes from each SOURCE
                           argument
  -S, --suffix=SUFFIX  override the usual backup suffix
  -t, --target-directory=DIRECTORY  move all SOURCE arguments into DIRECTORY
  -T, --no-target-directory  treat DEST as a normal file
  -u, --update          move only when the SOURCE file is newer
                           than the destination file or when the
                           destination file is missing
  -v, --verbose         explain what is being done
  -Z, --context          set SELinux security context of destination
                           file to default type
  --help               display this help and exit
  --version             output version information and exit

The backup suffix is '~', unless set with --suffix or SIMPLE_BACKUP_SUFFIX.
The version control method may be selected via the --backup option or through
the VERSION_CONTROL environment variable. Here are the values:

  none, off            never make backups (even if --backup is given)
  numbered, t          make numbered backups
  existing, nil        numbered if numbered backups exist, simple otherwise
  simple, never        always make simple backups

GNU coreutils online help: <http://www.gnu.org/software/coreutils/>
Full documentation at: <http://www.gnu.org/software/coreutils/mv>
or available locally via: info '(coreutils) mv invocation'

```

nano <nama-file> : Untuk membuat file text / code tertentu

cat <nama-file> : Untuk melihat isi file bagian atas

tail <nama-file> : Untuk melihat isi file bagian bawah