

Nama : Anggita Ramadhani

NIM : 123170076

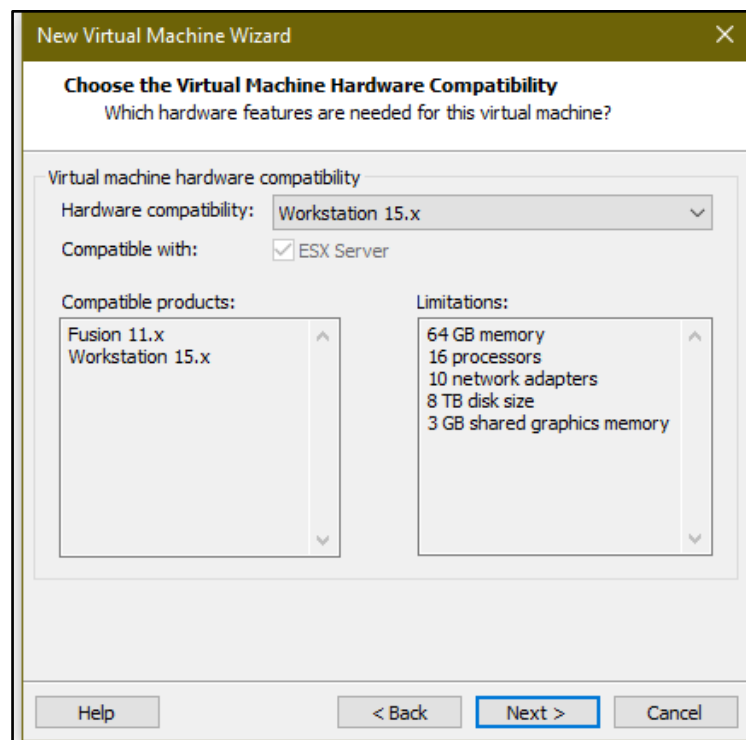
Plug : A

## ***Pengenalan VMWare Workstation dan Linux OS***

- Membuat layanan hosting (SaaS) berbasis Private Cloud : **Apache, Mysql, Php, PhpMyAdmin.**
- VMWare Workstation :
  - 1) Digunakan untuk virtualisasi sistem operasi
  - 2) Virtualisasi : Kegiatan untuk menciptakan versi maya (virtual) dari sesuatu, misalnya hardware, storage, dan resource dari komputer.
  - 3) Contoh : CPU, RAM, Network Adapter, Harddisk, Motherboard, VGA, PCI-e, Printer, Sound Card, dsb.
- Fitur :
  - 1) **Swapping** : bila komputer host tidak memiliki RAM yang cukup untuk menjalankan VM, maka dapat digunakan opsi swap. Caranya : Menu Edit -> Preferences -> Memory -> Pilih yang opsi yang “Allow most virtual machine memory to be swapped”
  - 2) **Memperbaiki konflik port pada XAMPP.** Caranya : Menu Edit -> Preferences -> Shared VMs -> Disable Sharing.
- Linux OS :
  - 1) Langkah 1 cek iso master, iso yang akan digunakan adalah Ubuntu 18.10.
  - 2) Buka Aplikasi VMWare Workstation, klik menu “Create a New Virtual Machine”
  - 3) Lalu akan muncul windows seperti dibawah.



- 4) Lalu pilih yang opsi Custom.
- 5) Pilih kompatibilitas hardware tertinggi untuk sistem operasi VM modern (keluaran terbaru). Gunakan opsi kompatibilitas 15.x.



- 6) Lalu klik next. Nanti akan muncul window seperti dibawah, lalu pilih opsi yang tengah dan klik browse pilih master iso dimana tadi disimpan, lalu klik next.

**New Virtual Machine Wizard**

**Guest Operating System Installation**  
A virtual machine is like a physical computer; it needs an operating system. How will you install the guest operating system?

Install from:

☐ Installer disc:  
DVD RW Drive (F:)

☒ Installer disc image file (iso):  
C:\ISO Library\ubuntu-18.10-live-server-amd64.iso Browse...  
Ubuntu 64-bit Server 18.10 detected.  
This operating system will use Easy Install.

☐ I will install the operating system later.  
The virtual machine will be created with a blank hard disk.

Help < Back Next > Cancel

7. Lalu akan muncul tampilan seperti dibawah ini, lalu isikan Personalize Linux. Klik Next.

**New Virtual Machine Wizard**

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

Personalize Linux

Full name: Anggita Ramadhani

User name: anggita

Password: ●●●●●●

Confirm: ●●●●●●

Help < Back Next > Cancel

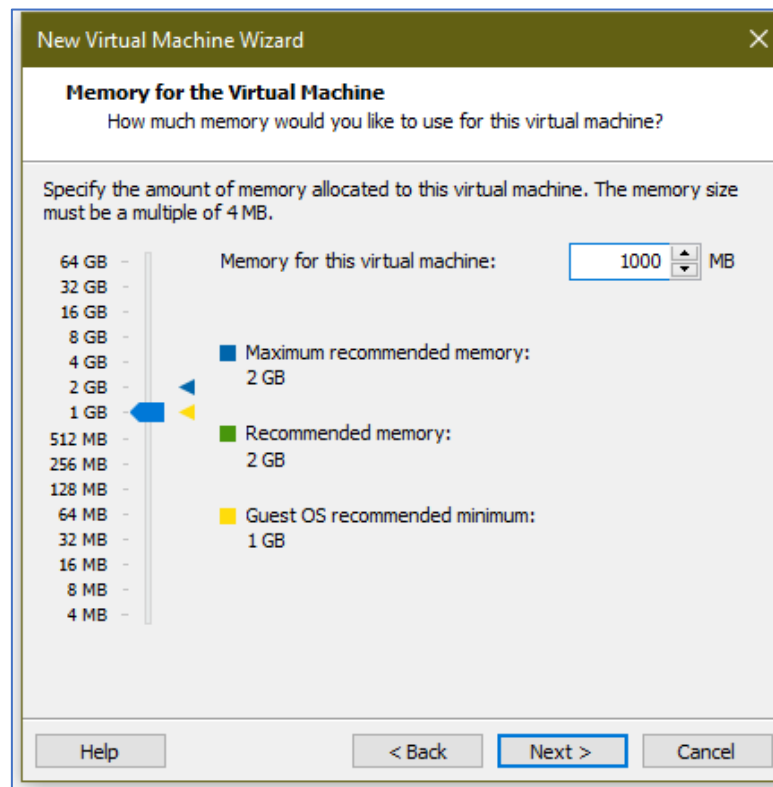
8. Lalu akan muncul window seperti dibawah, klik browse pilih lokasi untuk menyimpan VM.

The screenshot shows the 'Name the Virtual Machine' step of the 'New Virtual Machine Wizard'. The window title is 'New Virtual Machine Wizard'. The main heading is 'Name the Virtual Machine' with the instruction 'What name would you like to use for this virtual machine?'. There are two input fields: 'Virtual machine name:' with the text 'ubuntu LAMPP 123170076' and 'Location:' with the text 'D:\VM-123170076\Ubuntu LAMPP'. A 'Browse...' button is next to the location field. Below the location field, it says 'The default location can be changed at Edit > Preferences.' At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

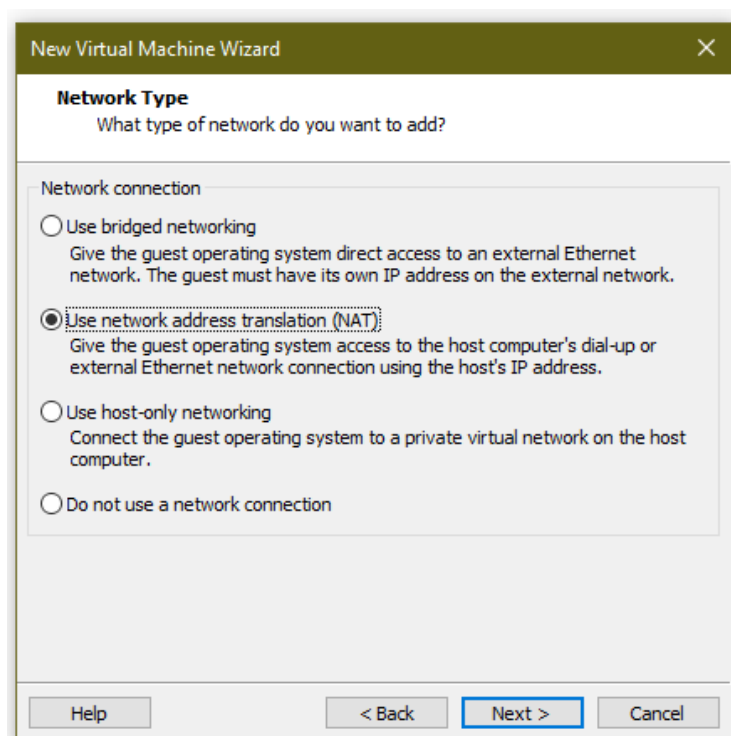
9. Lalu akan muncul window seperti dibawah atur number of processor menjadi 2. Klik next.

The screenshot shows the 'Processor Configuration' step of the 'New Virtual Machine Wizard'. The window title is 'New Virtual Machine Wizard'. The main heading is 'Processor Configuration' with the instruction 'Specify the number of processors for this virtual machine.' There are two dropdown menus: 'Number of processors:' set to '2' and 'Number of cores per processor:' set to '1'. Below these, it shows 'Total processor cores: 2'. At the bottom, there are four buttons: 'Help', '< Back', 'Next >', and 'Cancel'.

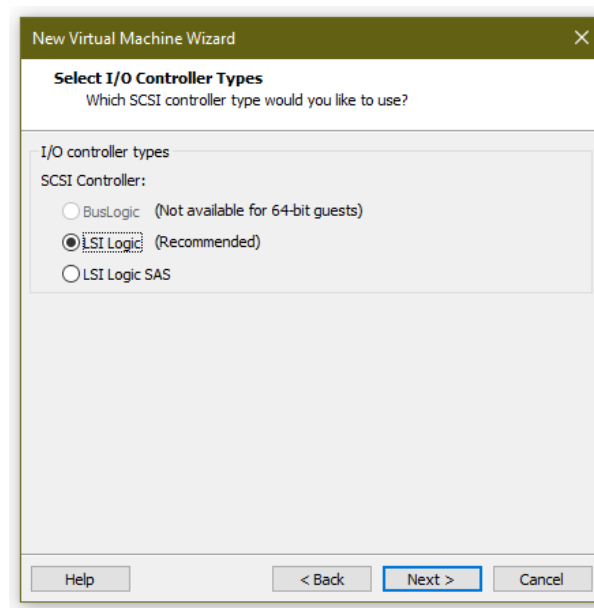
10. Lalu akan muncul tampilan seperti dibawah, lalu atur jumlah ram nya ditulis dalam kolom tersebut. Disini saya atur 1 GB. Klik next.



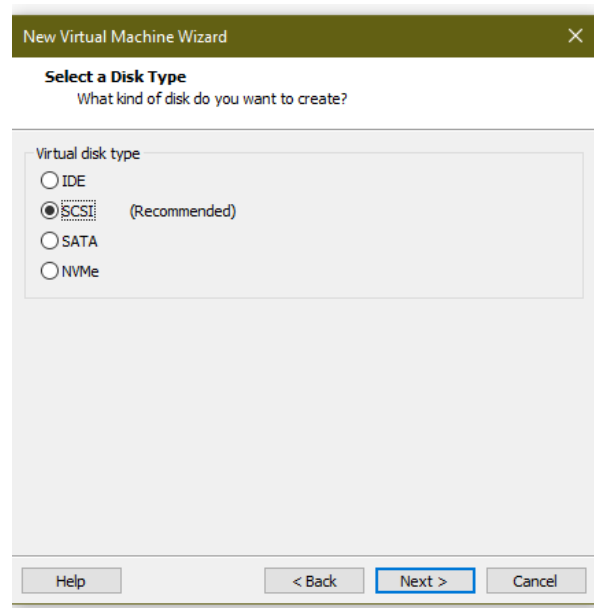
11. Lalu pilih jaringan yang NAT seperti dibawah.



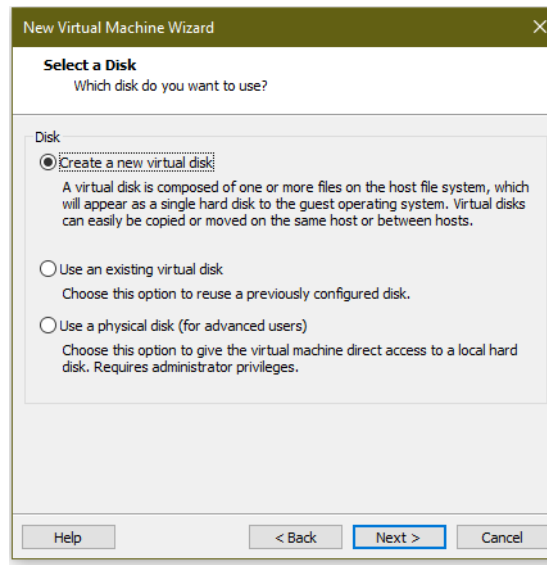
12. Pilih Controller LSI Logic. Klik Next.



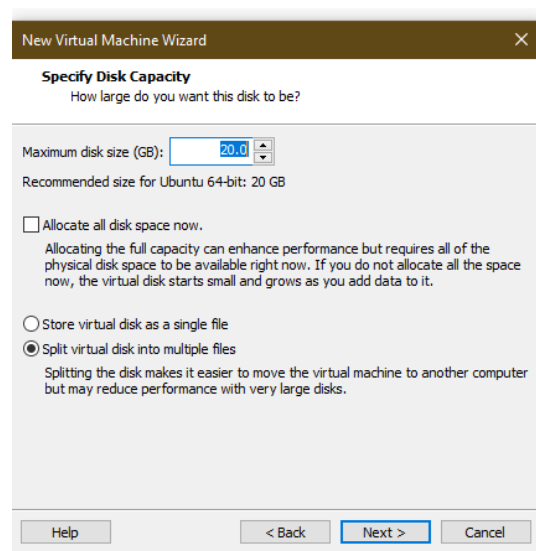
13. Pilih yang recommended (SCSI). Klik Next.



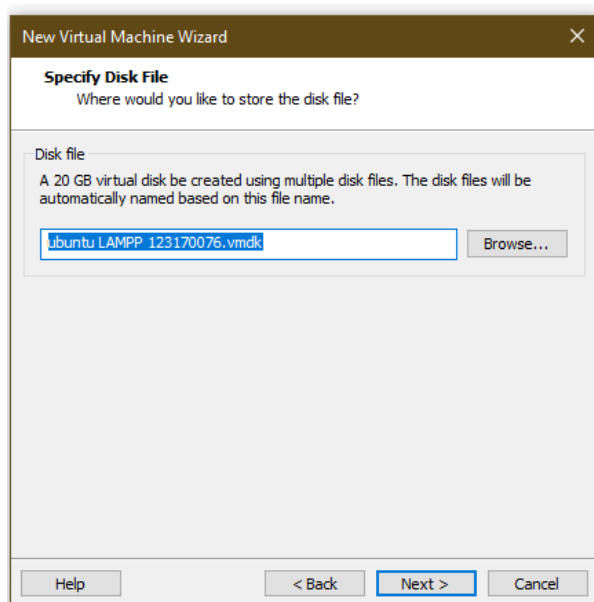
14. Pilih yang create a new virtual disk.



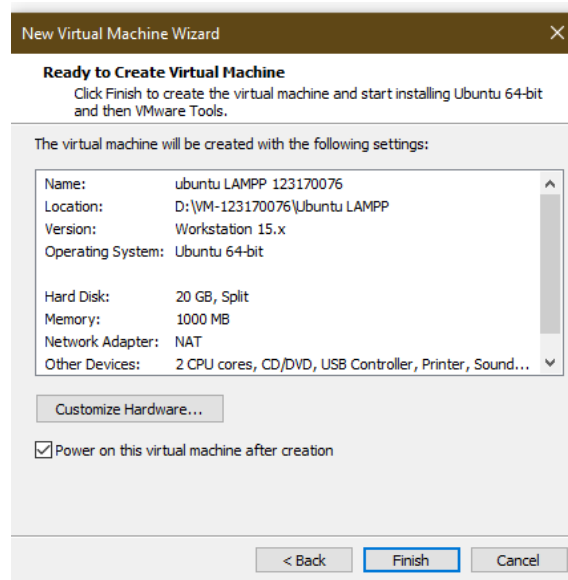
15. Setting 20 GB.



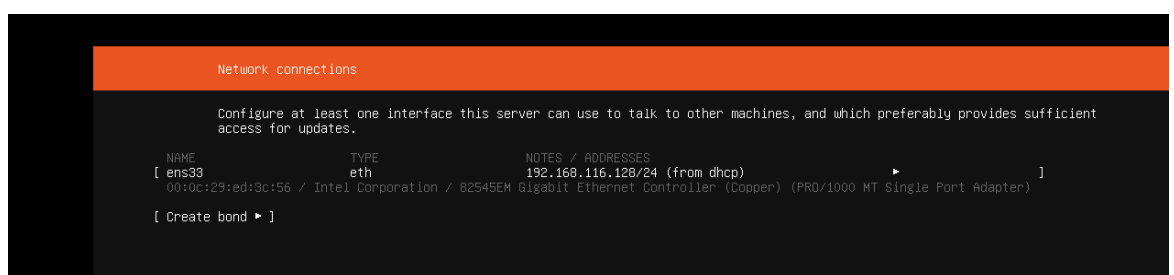
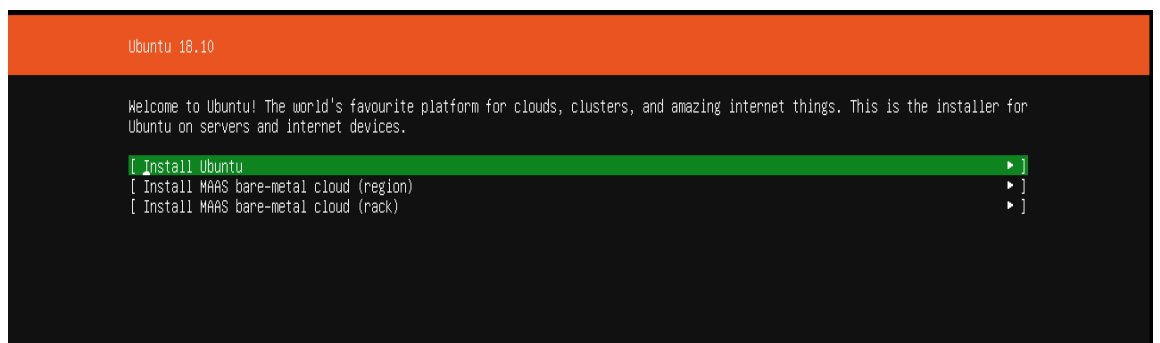
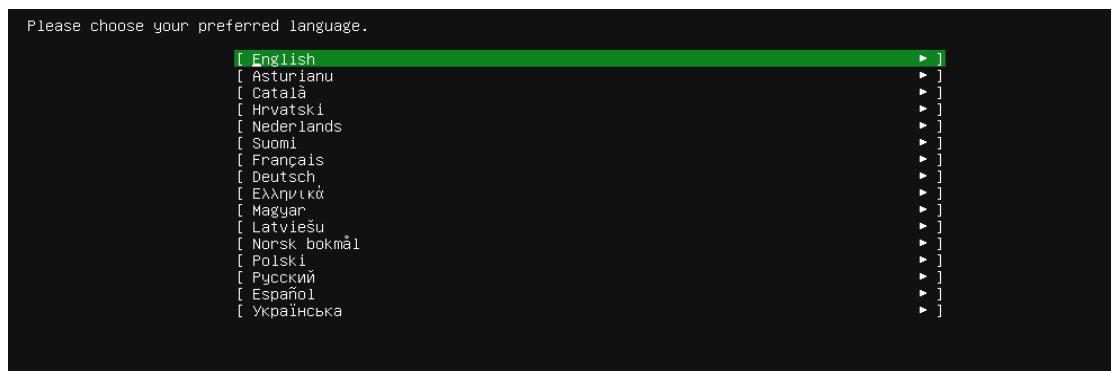
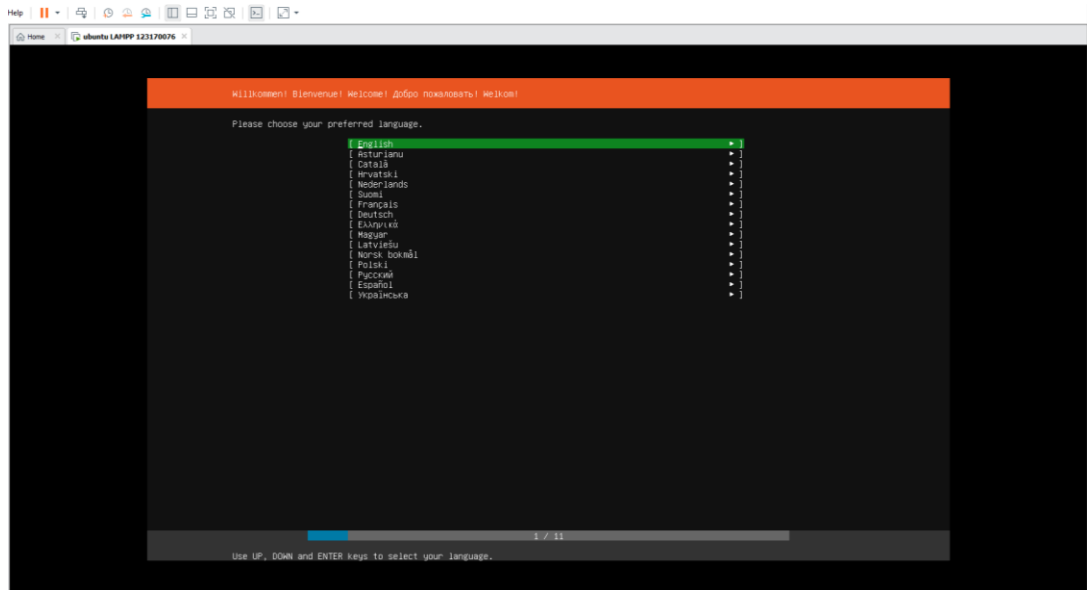
16. Pilih lokasi menyimpan.



17. Akan muncul window seperti dibawah, lalu ceklis power. Lalu klik finish.







### Configure proxy

If this system requires a proxy to connect to the Internet, enter its details here.

Proxy address:

If you need to use a HTTP proxy to access the outside world, enter the proxy information here. Otherwise, leave this blank.

The proxy information should be given in the standard form of "http://[[user][:pass]@]host[:port]/".

### Configure Ubuntu archive mirror

If you use an alternative mirror for Ubuntu, enter its details here.

Mirror address: <http://archive.ubuntu.com/ubuntu>

You may provide an archive mirror that will be used instead of the default 'http://archive.ubuntu.com/ubuntu'

### Filesystem setup

The installer can guide you through partitioning an entire disk either directly or using LVM, or, if you prefer, you can do it manually.

If you choose to partition an entire disk you will still have a chance to review and modify the results.

```
[ Use An Entire Disk ]
[ Use An Entire Disk And Set Up LVM ]
[ Manual ]
[ Back ]
```

### Filesystem setup

The selected guided partitioning scheme creates the required bootloader partition on the chosen disk and then creates a single partition covering the rest of the disk, formatted as ext4 and mounted at '/'.

Choose the disk to install to:

```
[ /dev/sda 20.000G ▶ ]
```

### Filesystem setup

#### FILE SYSTEM SUMMARY

MOUNT POINT	SIZE	TYPE	DEVICE TYPE
[ /	19.997G	ext4	partition of local disk ▶ ]

#### AVAILABLE DEVICES

No available devices

```
[ Create software RAID (md) ▶ ]
[ Create volume group (LVM) ▶ ]
```

#### USED DEVICES

DEVICE	SIZE	TYPE
[ /dev/sda	20.000G	local disk ▶ ]
[ partition 1	1.000M (0%)	▶ ]
bios_grub		
[ partition 2	19.997G (99%)	▶ ]
formatted as ext4, mounted at /		

Confirm destructive action

Selecting Continue below will begin the installation process and result in the loss of data on the disks selected to be formatted.

You will not be able to return to this or a previous screen once the installation has started.

Are you sure you want to continue?

No

Continue

Profile setup

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

Your name:

anggita-ramadhani

Your server's name:

anggita-server

The name it uses when it talks to other computers.

Pick a username:

gitaaaaarr

Choose a password:

\*\*\*\*\*

Confirm your password:

\*\*\*\*\*

Import SSH identity:

No

▼

You can import your SSH keys from Github or Launchpad.

Import Username:

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"/>	mosquitto	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.

## 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 lscsi service
      configuring raid (mdadm) service
      installing kernel /
```

```
anggita-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.
      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...
[ 21.731771] cloud-init[2169]: Generating locales (this might take a while)...
[ 23.189350] cloud-init[2169]:   en_US.UTF-8... done
[ 23.189690] cloud-init[2169]: Generation complete.
[ 23.378780] cloud-init[2169]: Cloud-init v. 18.4-7-g4652b196-0ubuntu1 running 'modules:config' at Thu, 13 Feb 2020 07:32:45 +0000. Up 21.64 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 gitaaaaarr.
<14Feb 13 07:32:47 ec2:
<14Feb 13 07:32:47 ec2: #####
<14Feb 13 07:32:47 ec2: -----BEGIN SSH HOST KEY FINGERPRINTS-----
<14Feb 13 07:32:47 ec2: 1024 SHA256:ovkL7k2/udutNGsQ0SF3htCf+sDfzTS080zsFxVe544 root@anggita-server (DSA)
<14Feb 13 07:32:47 ec2: 256 SHA256:UF4JEUmurbtkS6KV29dAK1CJ94M4LooqTHA1V8JLY4 root@anggita-server (ECDSA)
<14Feb 13 07:32:47 ec2: 256 SHA256:2c0M3AAQH8Ga2ED0hIqmpAeNJ+03LBAH8VX0tcgGzy6K root@anggita-server (ED25519)
<14Feb 13 07:32:47 ec2: 2048 SHA256:XCSFnaIfephoI8NbU0TVLrZyS8dYHV3InrS/JUB056w root@anggita-server (RSA)
<14Feb 13 07:32:47 ec2: -----END SSH HOST KEY FINGERPRINTS-----
<14Feb 13 07:32:47 ec2: #####
-----BEGIN SSH HOST KEY KEYS-----
ecdsa-sha2-nistp256 AAAAE2VjZHNhLlNoYWQ1ImlzZDhAYnNTYAAAAIbmlzZDhAYnNTYAAABBBNNI4bScFaHG1T21MSduZ1E2zu5rG4Sd1tS9UsJG0mXnoIWE17A4CXu1h76qIWeIRCzeC5H43APkR90h/BdH+2A=
root@anggita-server
ssh-ed25519 AAAAC3NzaC1lZD01INTE5AAAAIPUjWnQ3eGf0Z1f12g1UyxZutshBaf0D93BkgraadL1x6 root@anggita-server
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDA69nxKz1120yPQVvmttTfPQ37Q85ubERho+ghuv9JclqSK18/hyJkLka9y0Re0nT+ptvDPu6V8KcbPVNh6K1vrPA2h+YYLq6RE6kvmS6znzKkaCa0HzGRQ
6npvomi1261ctV6u01bhoFkqF7U/cEVXmtg8CE4P/EuHt05180aopGMD14QKceekrogSUTovQmC+m1nSut0Fd/NLPXw0W0Xv7P1Xh0CcUXQEbegg1380oPFvjJHF6PySfb/RFncGMFcGfxa4agT3NvG1NVJUN0SQS
JCywXnS/gUSXnxf08P1VSV29pc2LHCqC/mKBHP3njkLGAH21jpr8tinJ7N root@anggita-server
-----END SSH HOST KEY KEYS-----
[ 24.307961] cloud-init[2254]: Cloud-init v. 18.4-7-g4652b196-0ubuntu1 running 'modules:final' at Thu, 13 Feb 2020 07:32:47 +0000. Up 24.20 seconds.
[ 24.308068] cloud-init[2254]: ci-info: no authorized ssh keys fingerprints found for user gitaaaaarr.
[ 24.308127] cloud-init[2254]: Cloud-init v. 18.4-7-g4652b196-0ubuntu1 finished at Thu, 13 Feb 2020 07:32:47 +0000. DataSource DataSourceNoCloud [seed=/var/lib/cloud/seed/nocloud-net] [dmode=net]. Up 24.30 seconds
[ OK ] Started Execute cloud user/final scripts.
[ OK ] Reached target Cloud-init target.
```

Ubuntu 18.10 anggita-server tty1

anggita-server login: \_

```
ecdsa-sha2-nistp256 AAAAE2VJZHNhbnNpdzdhYnTYAAAAIbm1zdHhYNTYAAABBBNNI4bScFaHG1T2IMSdUzIE2zu5rG4Sd1TS9UsJH6mnoIWE17A4Ckx1h76q1WeIRCZeCSH43APkR90h/BdH+2A=
root@anggita-server:~#
ssh-ed25519 AAAAC3NzaC1lZD01INTE5AAAAIPU1MWM3eGfD21F12g1UvX2utghBaFDQ38KgroaDL1x6 root@anggita-server
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDD99rkEz11zDyPQVvMhtgTHPQ87QS5ubERh0+ghvu91dLqSK18/hyJkLka3y0ReDrT+ptv0Pu6V8KcbPYNhGkIvrPA2h+YYLq6RE6kvmSu52nzkkCaCa0HzGRQ
6npv0m1126ictvGw01bhoFkQgF7U/cEVWhtgBCE4P/EuHt051B0oqo6MD14KceekrogSUTQvQmC+m1mSutDFd/N1PXu0W0Xv7P1Xh0CcUXQEBeg138ooFkvJHF6PYsfz/RfncGMFcGfxa4agT3WVG1NVJUND5Qs
J0yukrS/gUSxreF08P1VSz99pc2IHQc/mKBHrF3ngLGAAR21JprBt1mJ7N root@anggita-server
-----END SSH HOST KEY KEYS-----
[ 24.307961] cloud-init[2254]: Cloud-init v. 18.4-7-g4652b196-0ubuntu1 running 'modules:final' at Thu, 13 Feb 2020 07:32:47 +0000. Up 24.20 seconds.
[ 24.308068] cloud-init[2254]: ci-info: no authorized ssh keys fingerprints found for user gitaaaaarr.
[ 24.308127] cloud-init[2254]: Cloud-init v. 18.4-7-g4652b196-0ubuntu1 finished at Thu, 13 Feb 2020 07:32:47 +0000. DataSource DataSourceNoCloud [seed=/var/li
b/cloud/seed/nocloud-net][dsmodel=net]. Up 24.30 seconds
[ OK ] Started Execute cloud user/final scripts.
[ OK ] Reached target Cloud-init target.

Ubuntu 18.10 anggita-server tty1
anggita-server login: gitaaaaarr
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 07:34:41 UTC 2020

System load:  0.11          Processes:      195
Usage of /:   20.4% of 19.56GB   Users logged in:  0
Memory usage: 25%            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.

gitaaaaarr@anggita-server:~$
```

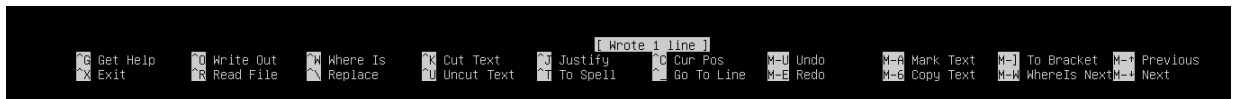
- Perintah di linux
  - 1) sudo = super user do
  - 2) sudo su
  - 3) cd = change directory
  - 4) mkdir = make directory
  - 5) ls = menampilkan isi suatu folder. List.
  - 6) cp = copy
  - 7) mv = move
  - 8) rm = remove
  - 9) nano = text editor
  - 10) apt = package manager
  - 11) cat = text editor
  - 12) chown = change owner
  - 13) chmod = change mode
- Klik sudo su untuk pindah ke akun administator.

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

- Jika di linux menggunakan nano untuk text editor fungsinya sama seperti notepad di windows.
- Ketikkan nano /etc/motd lalu akan menampilkan text editor didalam linux.

```
GNU nano 2.9.8 /etc/motd Modified
hello everybody! Anggita's here_
```

- Lalu jika telah selesai menulis, untuk save menggunakan ctrl+o.

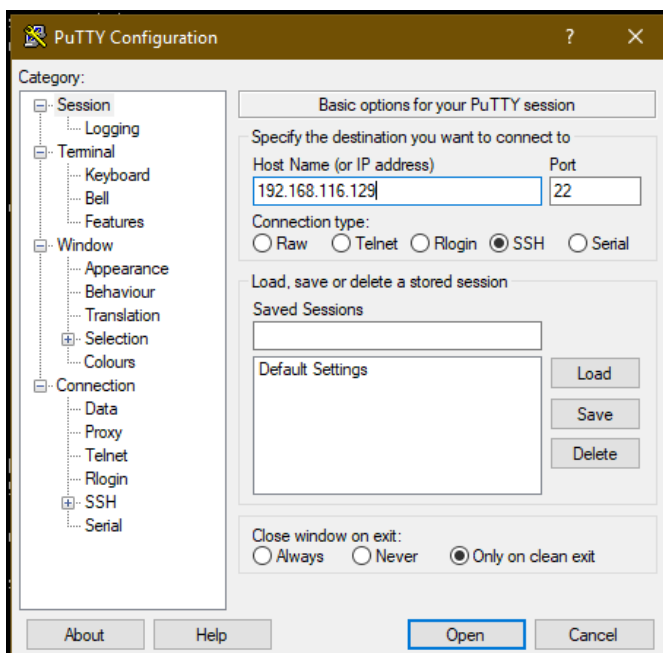


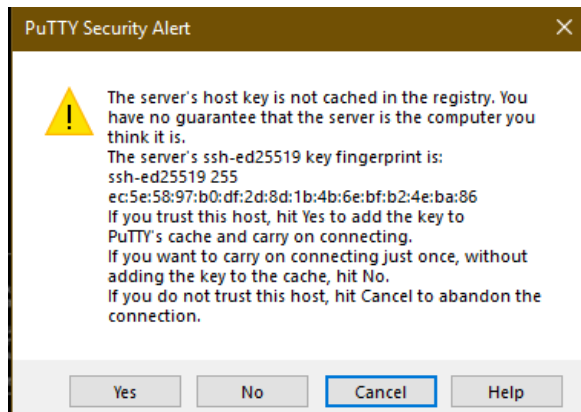
- Lalu pada nano akan tertulis wrote 1 line, itu merupakan sudah ada baris 1 line dalam text editor nano.



- Untuk exit dari nano, klik ctrl+x. Lalu klik y.

```
root@anggita-server:/home/gitaaaaarr# exit
exit
gitaaaaarr@anggita-server:~$ _
```





## EVALUASI

1. *ls* fungsinya adalah untuk menampilkan list dalam sebuah folder, lalu kita coba masukkan *ls* setelah login, maka tidak ada muncul apapun, karena belum ada folder yang ada didalam anggita-server.

```
gitaaaarr@anggita-server ~
login as: gitaaaarr
gitaaaarr@192.168.116.129's 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 07:53:47 UTC 2020

System load:  0.0               Processes:    166
Usage of /:   20.4% of 19.56GB   Users logged in: 1
Memory usage: 27%              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.

hello everybody! Anggita's here

Last login: Thu Feb 13 07:49:45 2020
gitaaaarr@anggita-server:~$ ls
gitaaaarr@anggita-server:~$
```

2. *mkdir pertemuan-2* artinya yaitu membuat directory (folder) yang bernama pertemuan-2.

```
Last login: Thu Feb 13 07:49:45 2020
gitaaaarr@anggita-server:~$ ls
gitaaaarr@anggita-server:~$ mkdir pertemuan-2
gitaaaarr@anggita-server:~$
```

3. *ls -l* artinya melihat list beserta jumlahnya. Lalu akan tampil total file yang ada pada pertemuan-2. Ada 4 file yang ada didalam folder tersebut, nama filenya ada dibawah ini.

```
gitaaaarr@anggita-server:~$ ls -l
total 4
drwxrwxr-x 2 gitaaaarr gitaaaarr 4096 Feb 13 07:56 pertemuan-2
gitaaaarr@anggita-server:~$
```

4. ***cp -r pertemuan-2 pertemuan-1*** yang artinya menduplikat atau mengcopy direktori “pertemuan-2” yang diberi nama menjadi “pertemuan-1”

```
gitaaaarr@anggita-server:~$ cp -r pertemuan-2 pertemuan-1
gitaaaarr@anggita-server:~$
```

5. ***ls*** yang artinya melihat isi dari anggita server, yaitu ada direktori pertemuan-1 dan pertemuan-2

```
gitaaaarr@anggita-server:~$ ls
pertemuan-1  pertemuan-2
gitaaaarr@anggita-server:~$
```

6. ***mv pertemuan-2 “pertemuan 2 LAMPP”*** yang artinya memindahkan direktori (folder) pertemuan-2 ke dalam folder baru “pertemuan 2 LAMPP”

```
gitaaaarr@anggita-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"
gitaaaarr@anggita-server:~$
```

7. ***ls*** yang artinya melihat isi dari server anggita, yaitu ada folder pertemuan-1 dan folder pertemuan 2 LAMPP yang barusan kita buat tadi.

```
gitaaaarr@anggita-server:~$ mv pertemuan-2 "pertemuan 2 LAMPP"
gitaaaarr@anggita-server:~$ ls
pertemuan-1  'pertemuan 2 LAMPP'
gitaaaarr@anggita-server:~$
```

8. ***cd “pertemuan 2 (tekan tab lalu enter)”*** yang artinya pindah direktori (pindah folder) ke dalam pertemuan 2 LAMPP. Jika klik tab lalu enter langsung akan auto memilih folder yang mempunyai nama pertemuan 2 blablabla

```
gitaaaarr@anggita-server:~$ cd "pertemuan 2 LAMPP"/
gitaaaarr@anggita-server:~/pertemuan 2 LAMPP$
```

9. ***nano biodata.txt*** (lalu tuliskan NIM, save, keluar)

```
gitaaaarr@anggita-server:~/pertemuan 2 LAMPP$ nano biodata.txt
```

Ketik nim dalam nano

```
gitaaaarr@anggita-server: ~
GNU nano 2.9.8
123170076
```

Save menggunakan **ctrl+o**, lalu klik enter, kemudian akan tertulis wrote 1 line yang artinya sudah ada 1 baris di dalam file tersebut. Untuk exit **ctrl+x**.

```
[ Wrote 1 line ]
^J Justify      ^C Cur Pos      M-U Undo        M-A Mark Text    M-] To Bracket
^T To Spell     ^_ Go To Line    M-E Redo        M-6 Copy Text    M-~ WhereIs Ne
```



10. `ls -l` melihat isi beserta jumlah nya dari folder pertemuan 2 LAMPP.

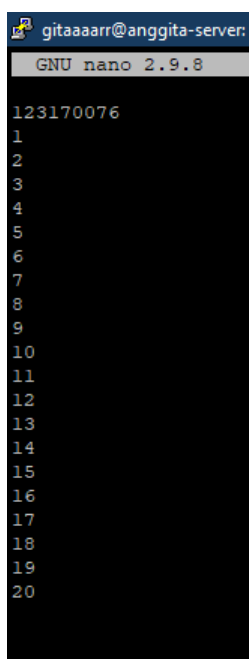
```
gitaaaarr@anggota-server:~/pertemuan 2 LAMPP$ ls -l
total 4
-rw-rw-r-- 1 gitaaaarr gitaaaarr 10 Feb 13 08:15 biodata.txt
gitaaaarr@anggota-server:~/pertemuan 2 LAMPP$
```

11. cat biodata.txt artinya adalah melihat isi dari biodata.txt

```
gitaaaarr@anggota-server:~/pertemuan 2 LAMPP$ cat biodata.txt
123170076
gitaaaarr@anggota-server:~/pertemuan 2 LAMPP$
```

12. nano biodata.txt (lalu ketikkan angka 1 sampai 20)

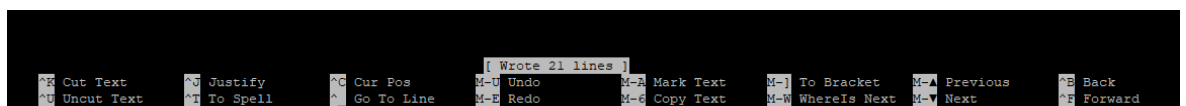
```
gitaaaarr@anggota-server:~/pertemuan 2 LAMPP$ nano biodata.txt
```



```
gitaaaarr@anggota-server: ~
GNU nano 2.9.8

123170076
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
```

Lalu save ctrl+o, tertulis wrote 21 lines



```

[ Wrote 21 lines ]
^X Cut Text      ^U Justify      ^C Cur Pos      M-U Undo        M-A Mark Text    M-] To Bracket  M-^ Previous    ^B Back
^Y Uncut Text    ^T To Spell     ^_ Go To Line   M-R Redo        M-G Copy Text    M-~ WhereIs Next M-_ Next        ^S Forward
```

13. Cat biodata.txt melihat isi dari biodata.txt

```
gitaaaarr@anggita-server:~/pertemuan 2 LAMPP$ cat biodata.txt
123170076
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
gitaaaarr@anggita-server:~/pertemuan 2 LAMPP$
```

14. tail biodata.txt melihat isi 10 data terakhir dari biodata.txt

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