



LEMBAR KERJA PRAKTIKUM CLOUD COMPUTING

INSTALASI DAN KONFIGURASI LAYANAN FILE SHARING DENGAN FREENAS

IDENTITAS:

| | |
|----------------|----------------------------|
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| NIM: | 123170069 |
| Kelas: | A |
| Hari, Tanggal: | Kamis, 5 Maret 2020 |

CONTOH ISIAN DAN PETUNJUK:

1. **[Contoh]** Gunakan ISO FreeNAS-11.2-U5 di folder ISO Library



2. **[Contoh]** Deskripsikan parameter yang digunakan untuk keluar dari akun root

```
$ exit
```

Perintah exit digunakan untuk keluar dari sesi akun aktif

3. **[Contoh]** Tampilkan pesan kesalahan pada saat login PHPMYAdmin

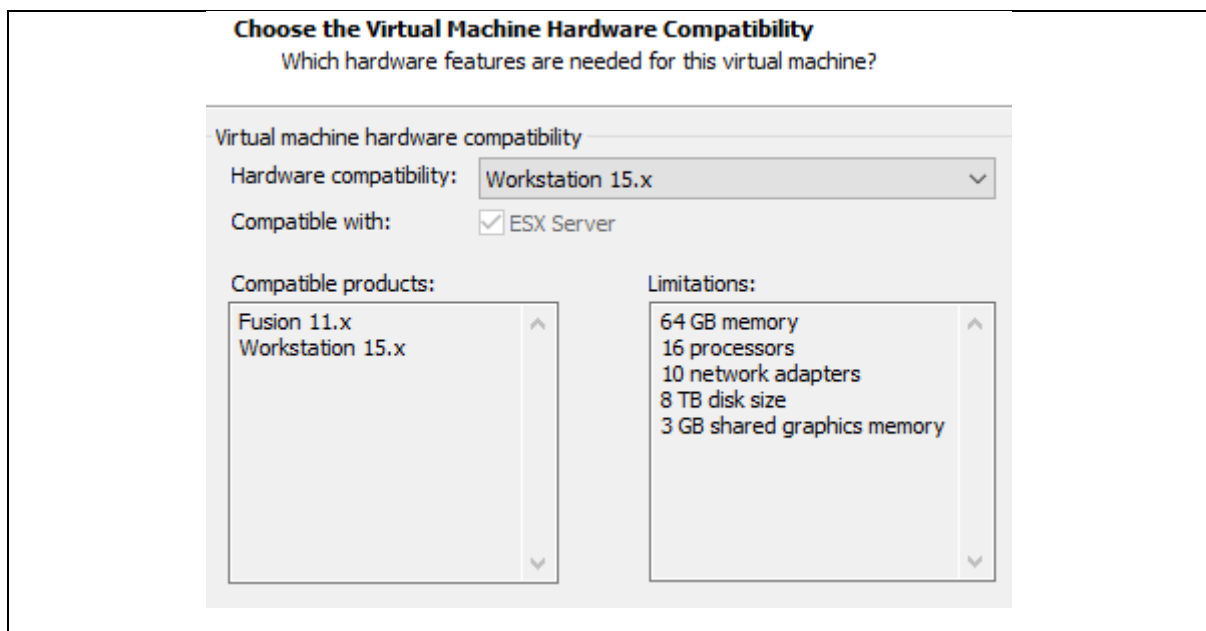


TUGAS BAGIAN PERTAMA – PEMBUATAN VM:

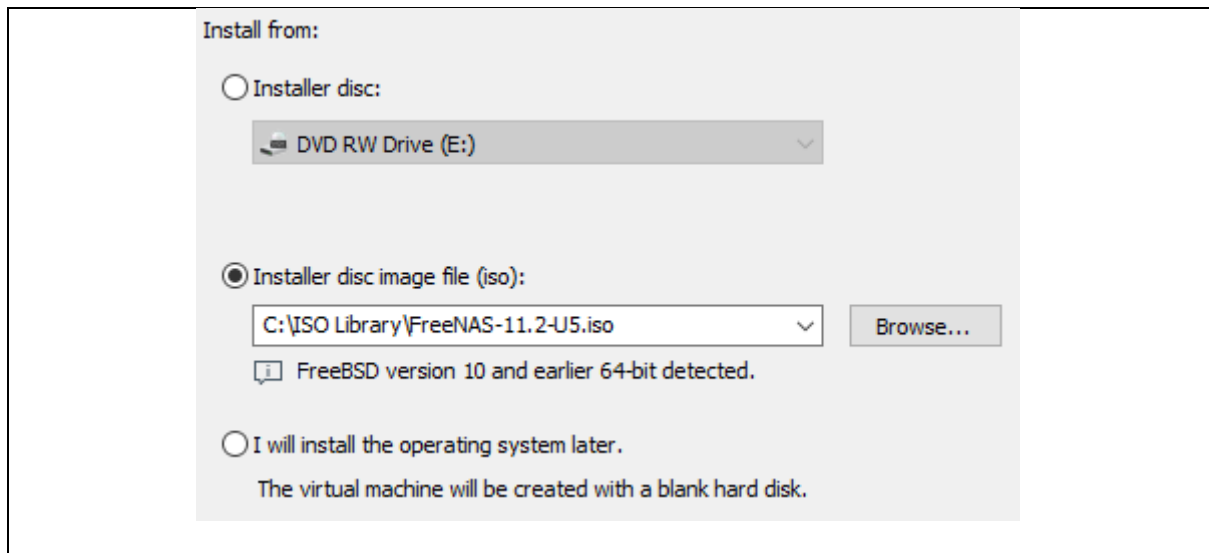
1. Gunakan opsi konfigurasi Custom



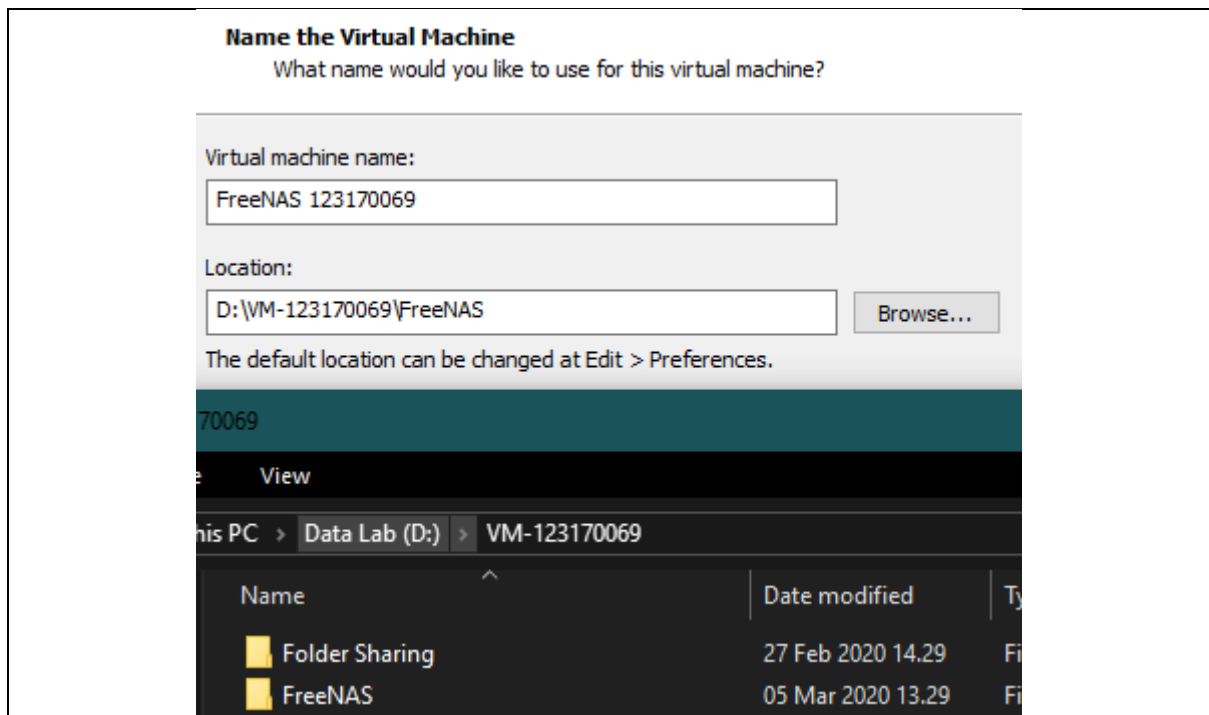
2. Gunakan compatibility Workstation 15.X



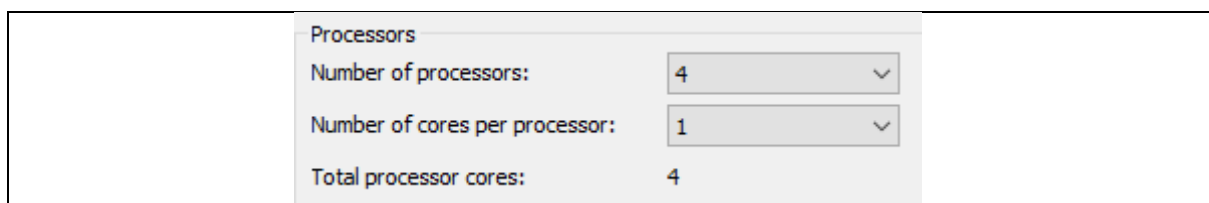
3. Gunakan ISO FreeNAS-11.2-U5 di folder ISO Library



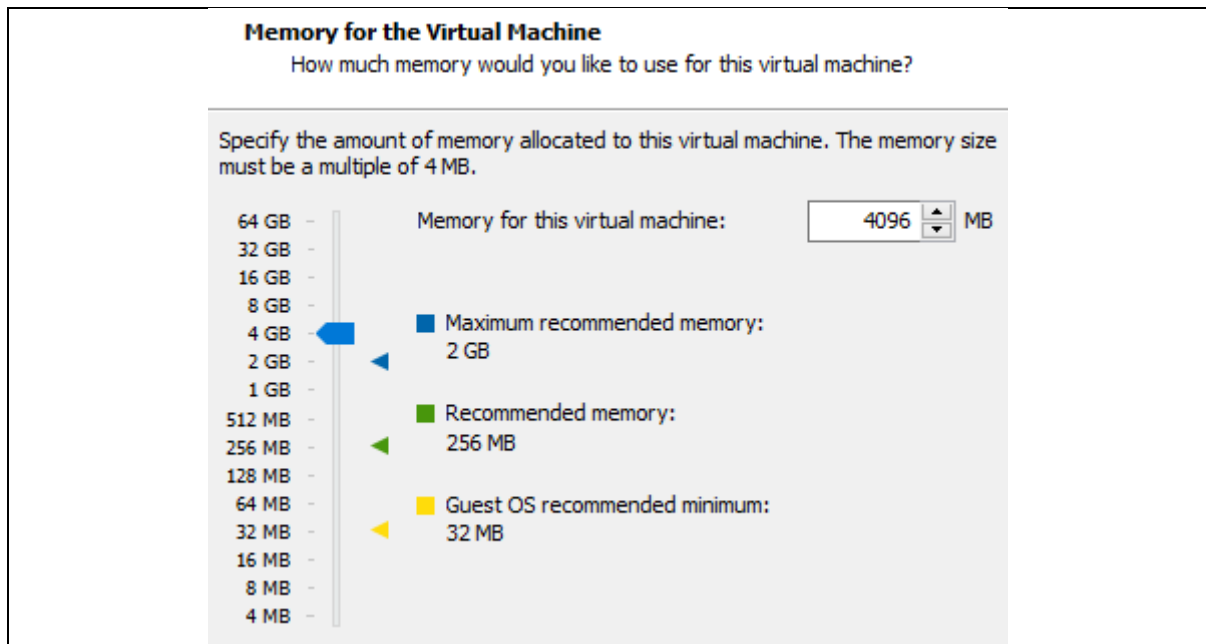
4. Format nama VM: **FreeNAS NIM** dan buat folder **FreeNAS** di dalam **VM-NIM**



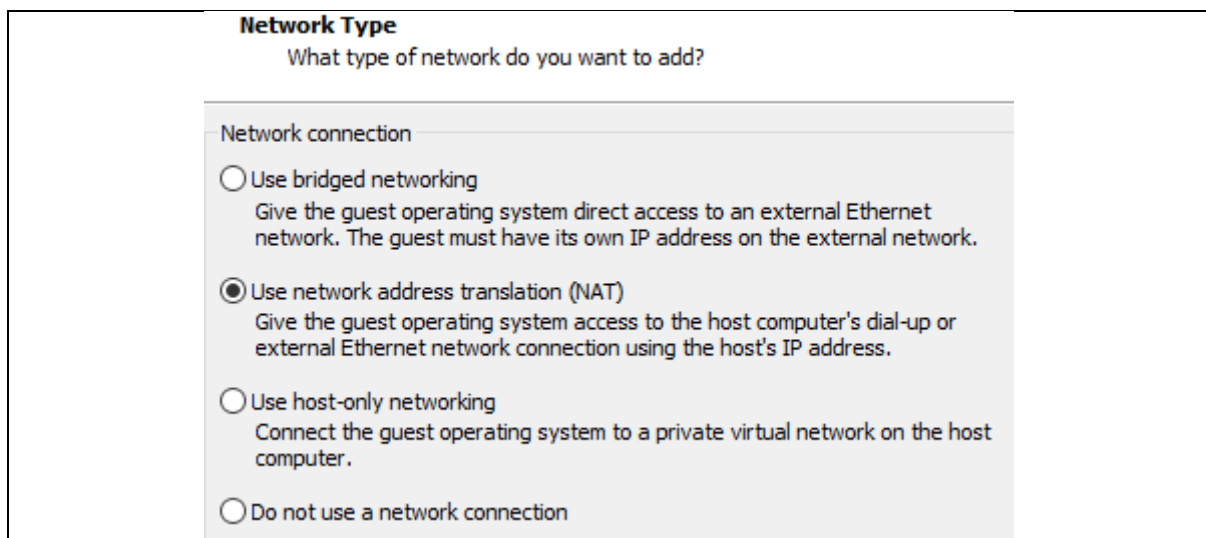
5. Gunakan 4 processor dan 1 core



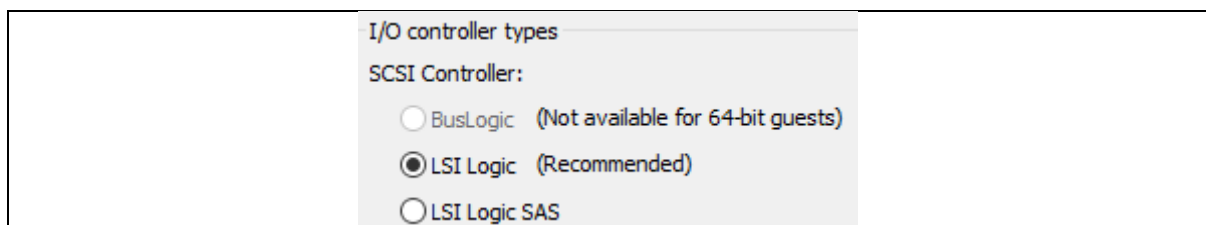
6. Gunakan RAM sebesar 4 GB



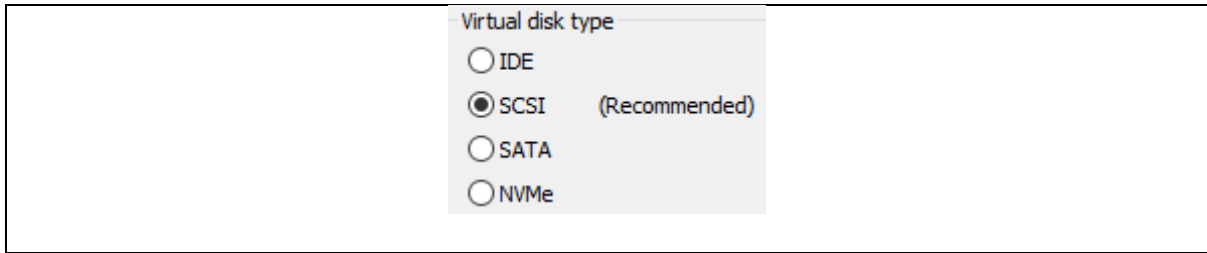
7. Gunakan mode jaringan NAT



8. Gunakan pengaturan default I/O Controller



9. Gunakan pengaturan default Virtual Disk Type



Virtual disk type

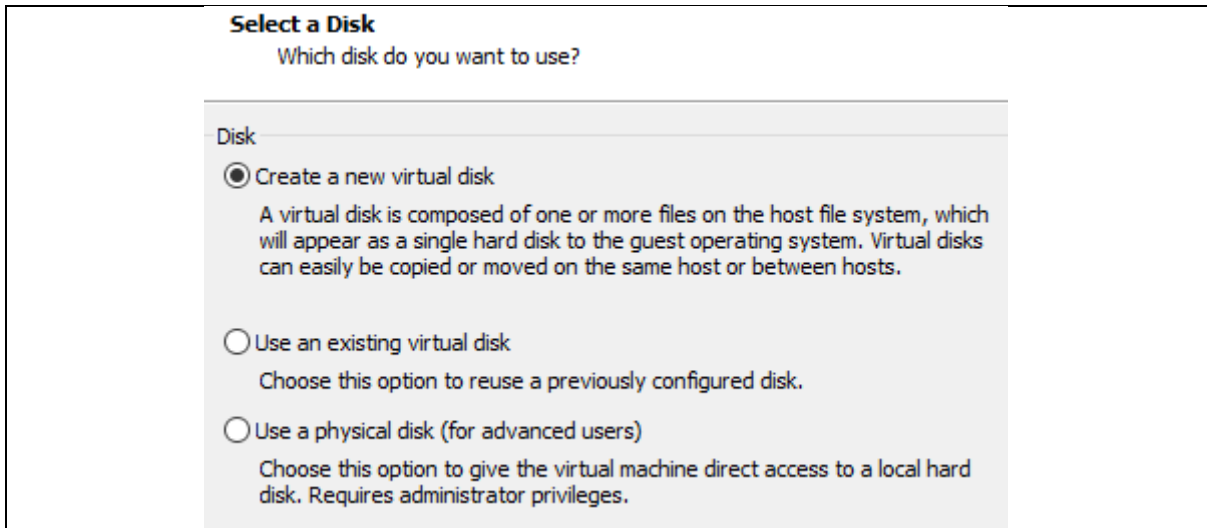
☐ IDE

☒ SCSI (Recommended)

☐ SATA

☐ NVMe

10. Pilih opsi buat virtual disk baru



Select a Disk
Which disk do you want to use?

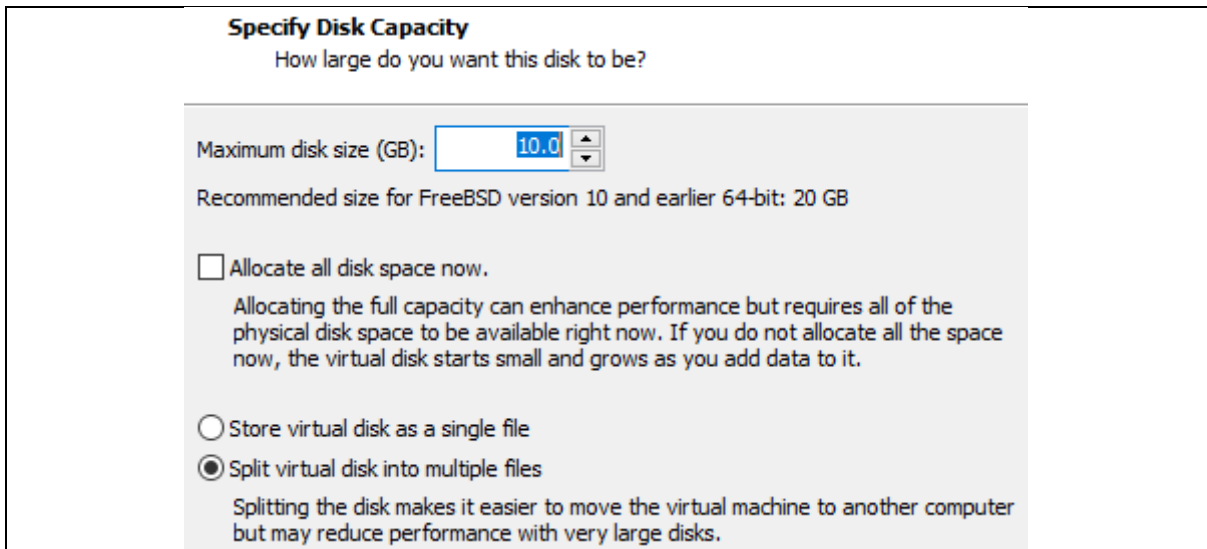
Disk

☒ 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.

11. Buat disk untuk sistem sebesar 10 GB dengan mode Split dan hilangkan checklist allocate disk



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

Maximum disk size (GB):

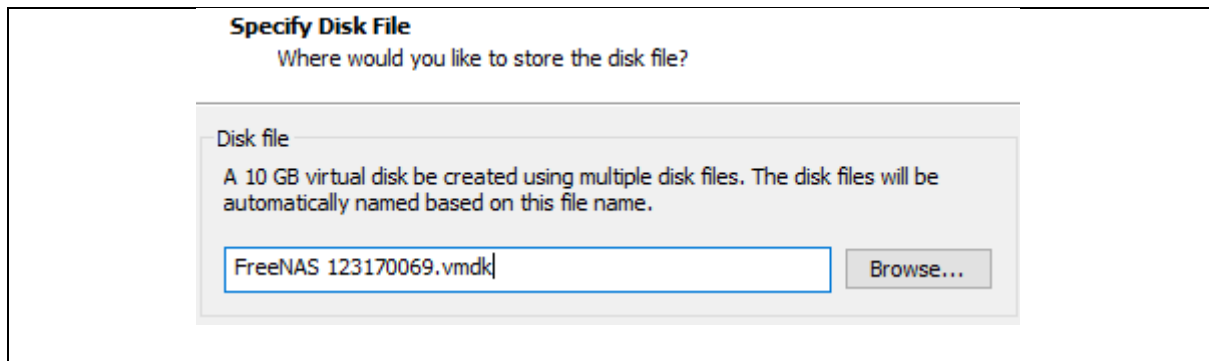
Recommended size for FreeBSD version 10 and earlier 64-bit: 20 GB

☐ 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.

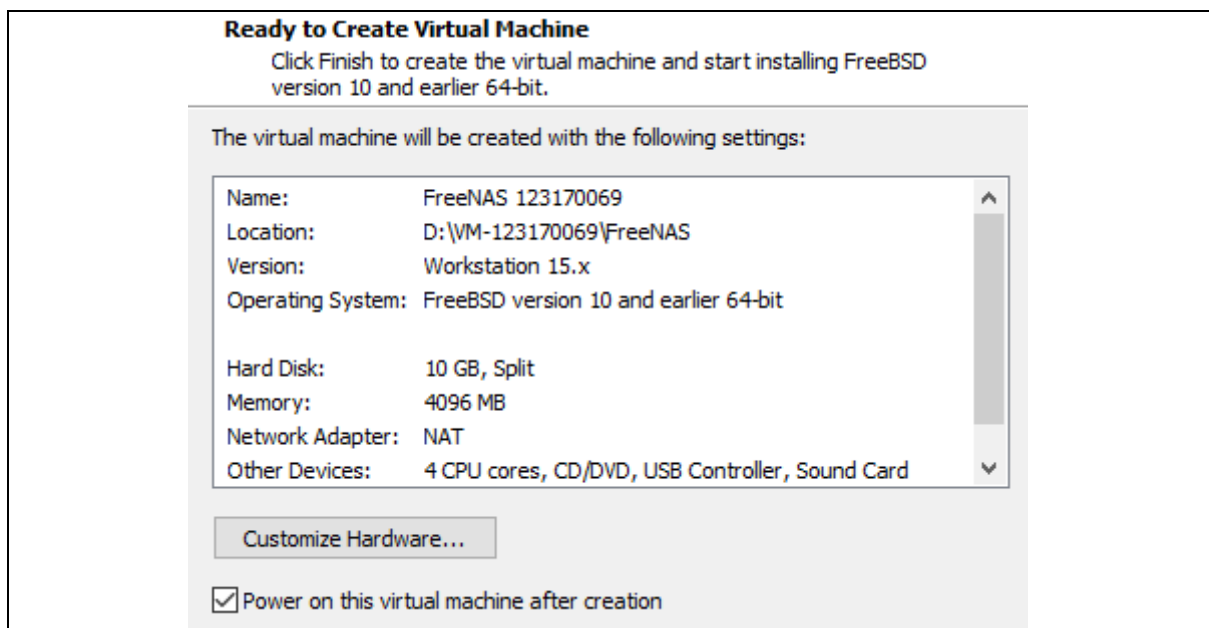
☐ Store virtual disk as a single file

☒ 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.

12. Gunakan pengaturan default untuk nama disk

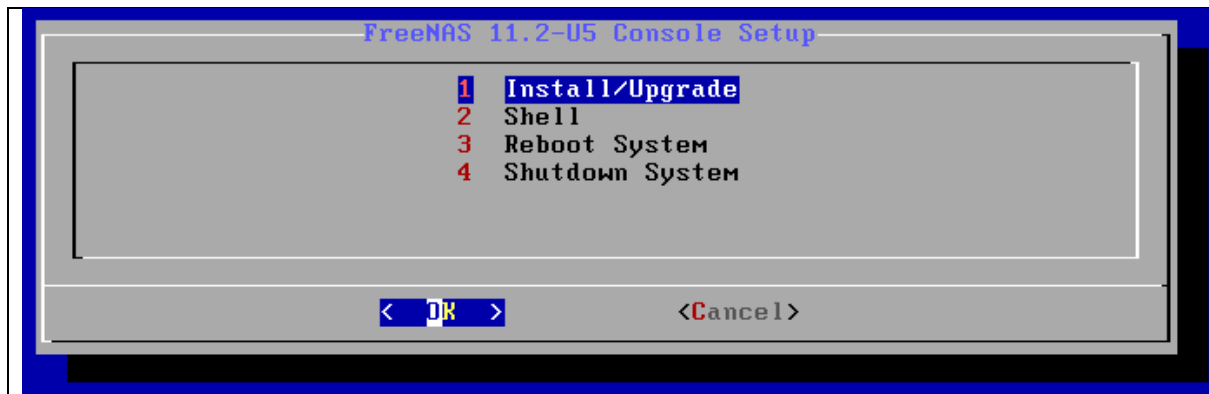


13. Tampilkan tangkapan layar dari ringkasan konfigurasi Virtual Machine (tahap akhir Wizard) lalu nyalakan VM

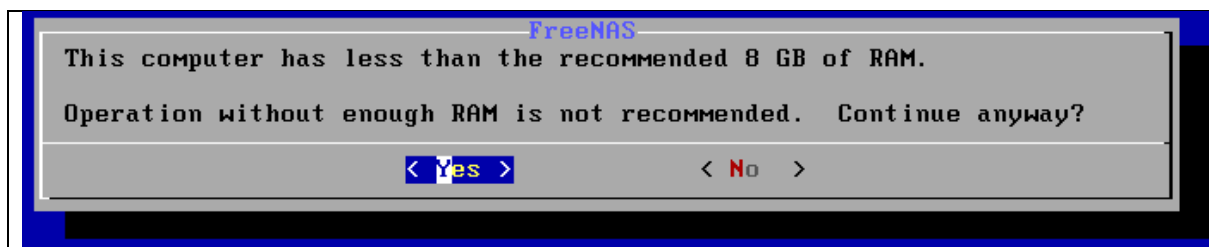


TUGAS BAGIAN KEDUA – INSTALASI FREENAS:

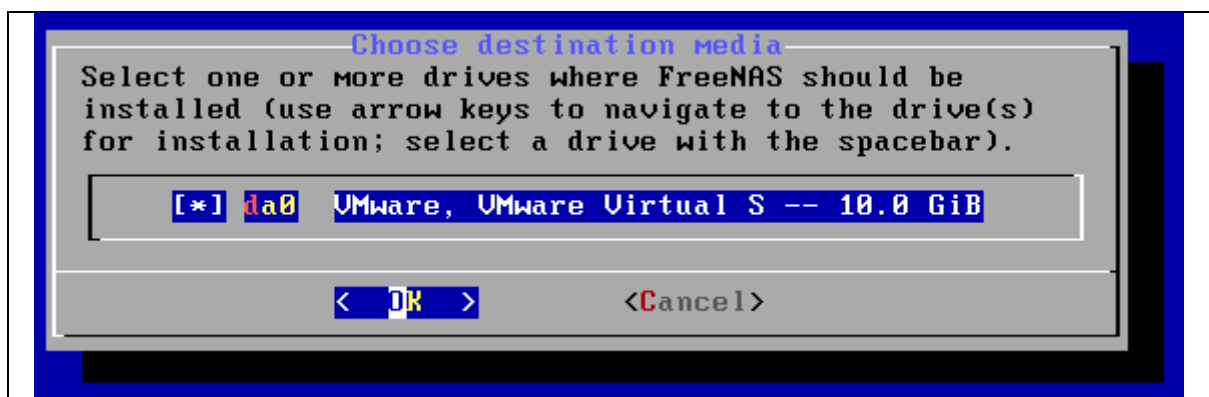
1. Tampilan awal tahap instalasi FreeNAS, pilih Install/Upgrade



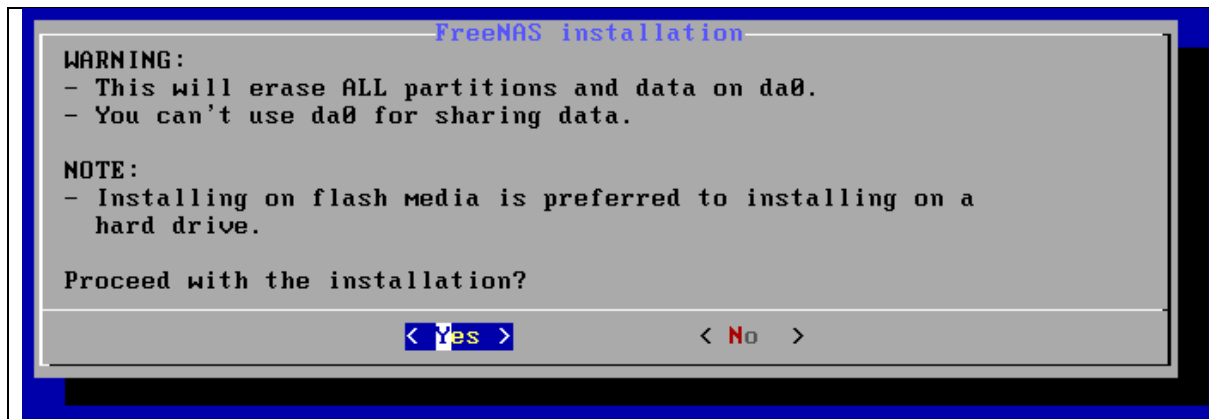
2. Tampilan warning RAM kurang dari 8GB, pilih Yes



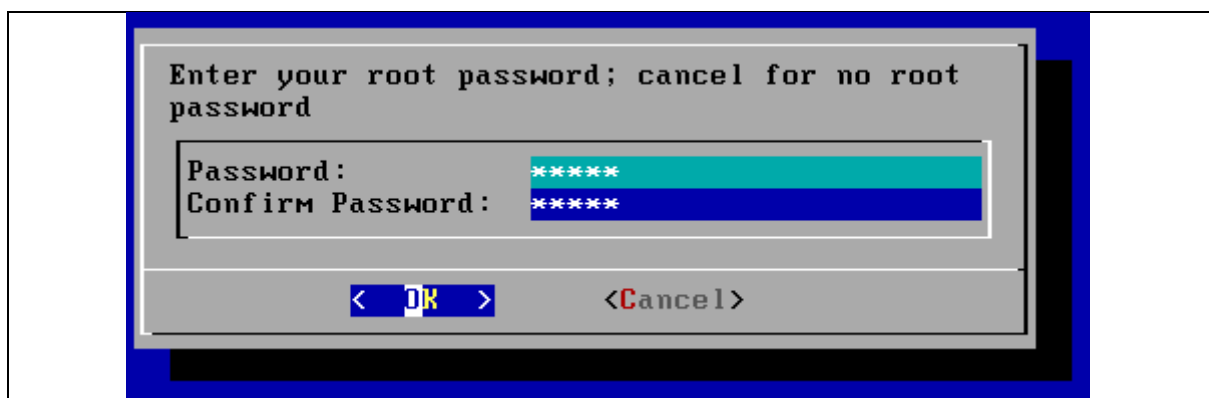
3. Tampilan pemilihan destination media untuk dipasang FreeNAS, pilih da0



4. Tampilan konfirmasi penghapusan/format media yang terpilih, pilih Yes

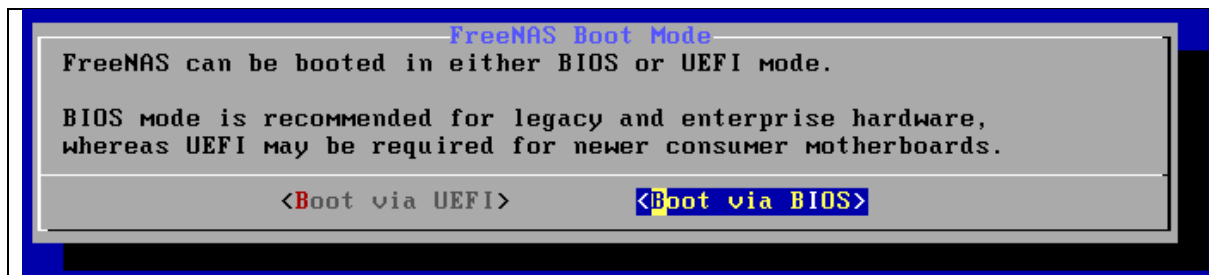


5. Tampilan pengaturan kata sandi, gunakan NIM atau bebas



Password: 12345

6. Tampilan mode boot dari FreeNAS, pilih BIOS



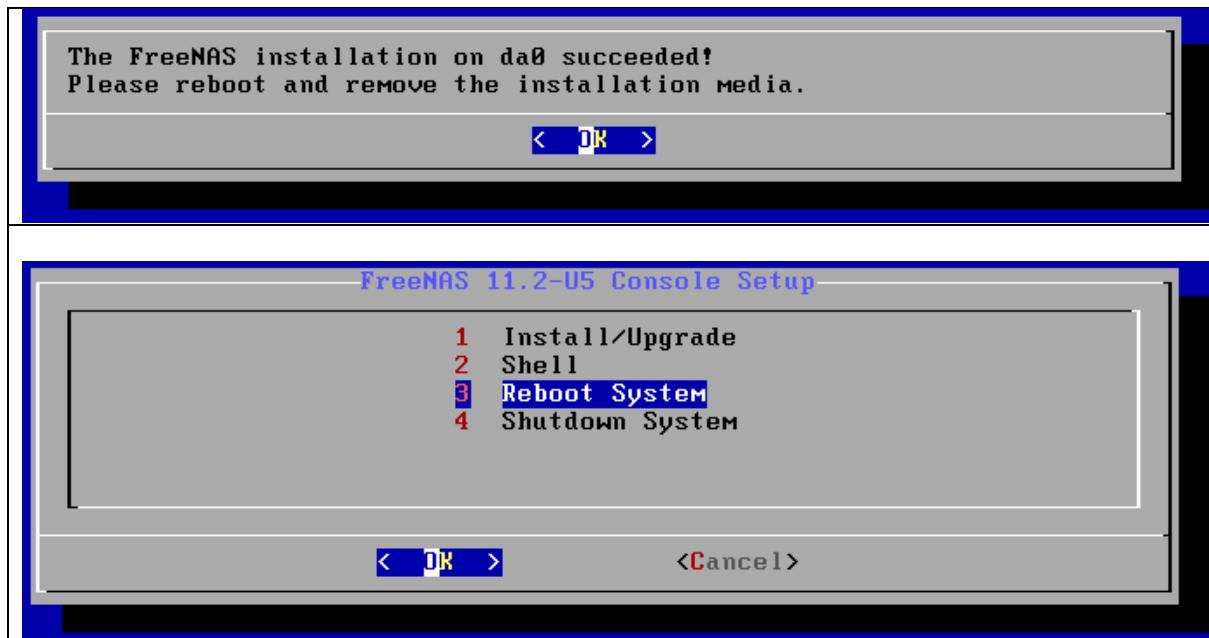
7. Tampilan proses instalasi FreeNAS

```

2+0 records in
2+0 records out
2097152 bytes transferred in 0.053664 secs (39079451 bytes/sec)
dd: /dev/da0: end of device
3+0 records in
2+0 records out
2097152 bytes transferred in 0.003003 secs (698360221 bytes/sec)
da0 created
da0p1 added
da0p2 added
gmirror: Invalid class name.
da0 destroyed
da0 created
da0p1 added
da0p2 added
active set on da0

```

8. Tampilan hasil akhir proses instalasi FreeNAS, pilih OK kemudian pilih Reboot System



9. Tampilan proses booting menuju FreeNAS OS

```
,0xdc000-0xdfff,0xe0000-0xe7fff on isa0
ZFS NOTICE: Prefetch is disabled by default if less than 4GB of RAM is present;
to enable, add "vfs.zfs.prefetch_disable=0" to /boot/loader.conf.
ZFS filesystem version: 5
ZFS storage pool version: features support (5000)
Timecounters tick every 10.000 msec
freenas_sysctl: adding account.
freenas_sysctl: adding directoryservice.
freenas_sysctl: adding middlewared.
freenas_sysctl: adding network.
freenas_sysctl: adding services.
ipfw2 (+ipv6) initialized, divert enabled, nat enabled, default to accept, logging disabled
ugen0.1: <0x15ad UHCI root HUB> at usb0
ugen1.1: <0x15ad EHCI root HUB> at usb1
uhub0: <0x15ad UHCI root HUB, class 9/0, rev 1.00/1.00, addr 1> on usb0
uhub1: <0x15ad EHCI root HUB, class 9/0, rev 2.00/1.00, addr 1> on usb1
uhub0: 2 ports with 2 removable, self powered
ugen0.2: <VMware VMware Virtual USB Mouse> at usb0
ugen0.3: <vendor 0x0e0f VMware Virtual USB Hub> at usb0
uhub2 on uhub0
uhub2: <VMware Virtual USB Hub> on usb0
uhub1: 6 ports with 6 removable, self powered
uhub2: 7 ports with 7 removable, self powered
```

10. Tampilan hasil akhir booting yang menunjukkan Console Setup

```
FreeBSD/amd64 (freenas.local) (ttyv0)

Console setup
-----

1) Configure Network Interfaces
2) Configure Link Aggregation
3) Configure VLAN Interface
4) Configure Default Route
5) Configure Static Routes
6) Configure DNS
7) Reset Root Password
8) Reset Configuration to Defaults
9) Shell
10) Reboot
11) Shut Down

The web user interface is at:

http://192.168.116.128

Enter an option from 1-11: █
```

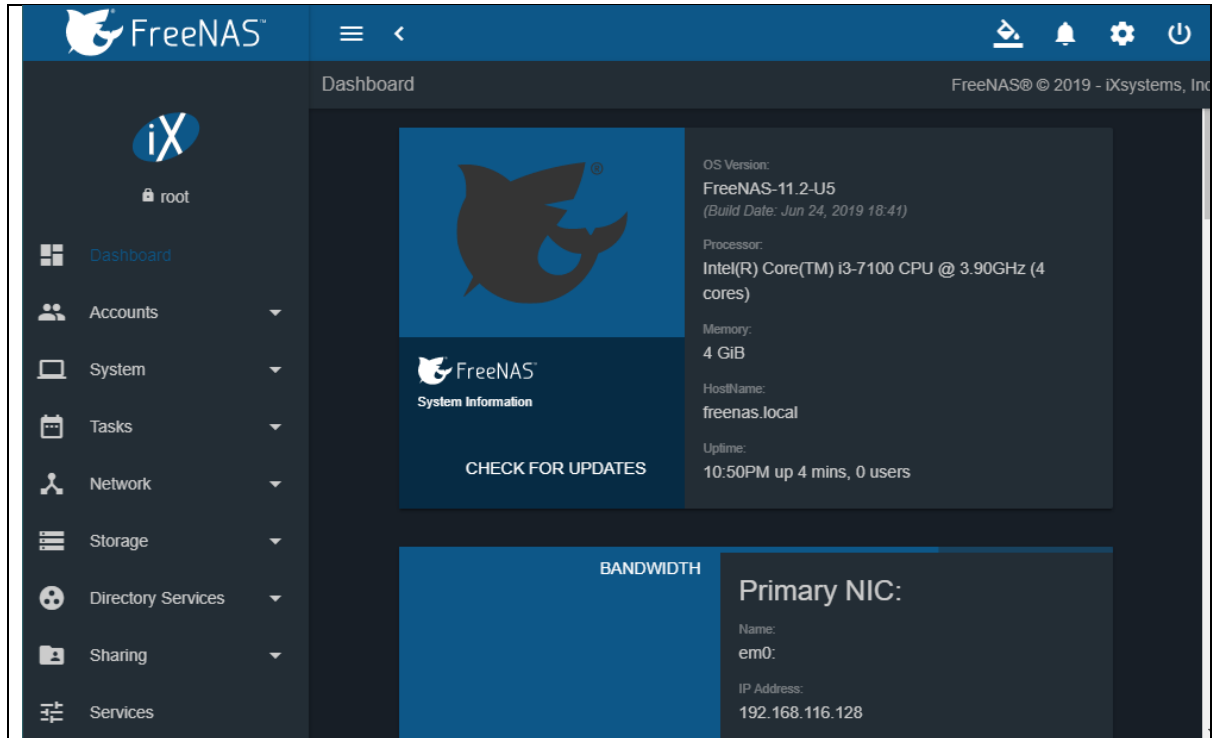
TUGAS BAGIAN KETIGA – KONFIGURASI FREENAS:

1. Tampilan dashboard setelah login FreeNAS

URL : http://192.168/116.128

Username untuk login: root

Password untuk login : 12345



2. Tampilan konfigurasi VM pada Eksperimen #1

| Device | Summary |
|----------------------|----------------------------------|
| Memory | 4 GB |
| Processors | 4 |
| Hard Disk (SCSI) | 10 GB |
| New Hard Disk (SCSI) | 15 GB |
| New Hard Disk (SCSI) | 3 GB |
| New Hard Disk (SCSI) | 8 GB |
| New Hard Disk (SCSI) | 5 GB |
| CD/DVD (IDE) | Using file C:\ISO Library\Fre... |
| Network Adapter | NAT |
| USB Controller | Present |
| Sound Card | Auto detect |
| Display | Auto detect |

3. Tampilan IP pada dashboard Console Setup pada Eksperimen #2

```
FreeBSD/amd64 (freenas.local) (ttyv0)

Console setup
-----

1) Configure Network Interfaces
2) Configure Link Aggregation
3) Configure VLAN Interface
4) Configure Default Route
5) Configure Static Routes
6) Configure DNS
7) Reset Root Password
8) Reset Configuration to Defaults
9) Shell
10) Reboot
11) Shut Down

The web user interface is at:

http://192.168.64.109

Enter an option from 1-11: █
```

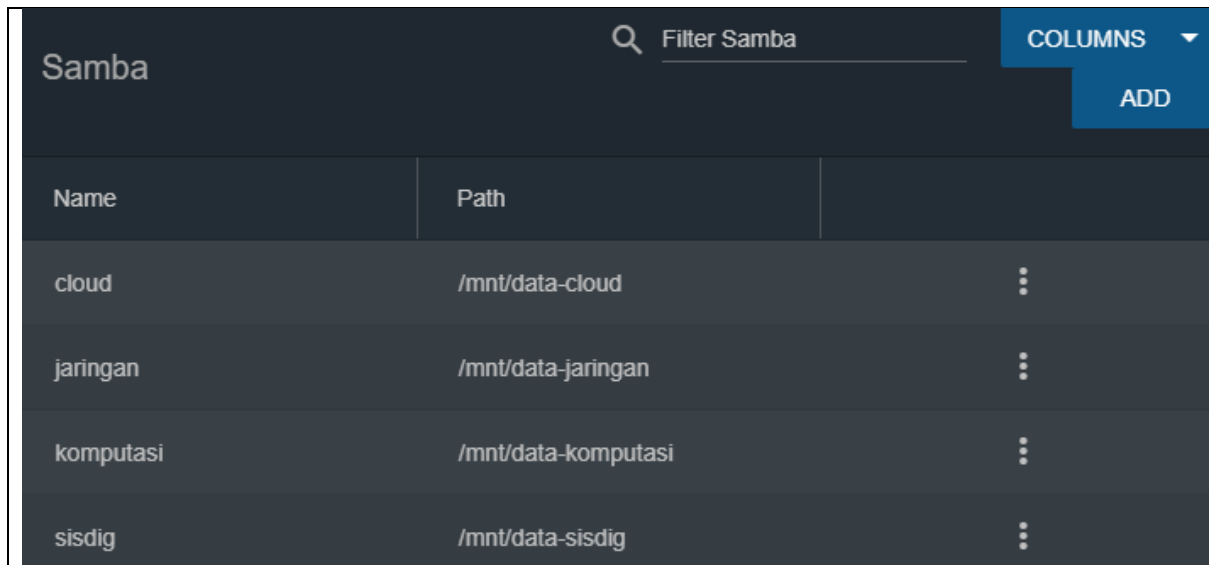
4. Tampilkan hasil dari pembuatan pools tambahan pada menu Storage -> Pools

| Pools | | ADD |
|----------------|--|-----|
| data-cloud | ✓ HEALTHY: 6.6 MiB (0%) Used / 2.62 GiB Free | ▼ |
| data-jaringan | ✓ HEALTHY: 316 KiB (0%) Used / 5.33 GiB Free | ▼ |
| data-komputasi | ✓ HEALTHY: 376 KiB (0%) Used / 12.11 GiB Free | ▼ |
| data-sisdig | ✓ HEALTHY: 340 KiB (0%) Used / 831.57 MiB Free | ▼ |

5. Tampilkan hasil dari pembuatan user tambahan pada menu Accounts -> Users

| Users Filter Users | | | | |
|---------------------------------|----------------|--------------------|---------------|-----------|
| Username | Home directory | Shell | Full Name | Lock User |
| cloud | /nonexistent | /bin/csh | Lab Cloud | no |
| jaringan | /nonexistent | /bin/csh | Lab jaringan | no |
| komputasi | /nonexistent | /bin/csh | Lab komputasi | no |
| sisdig | /nonexistent | /bin/csh | Lab sisdig | no |
| root | /root | /usr/local/bin/zsh | root | no |

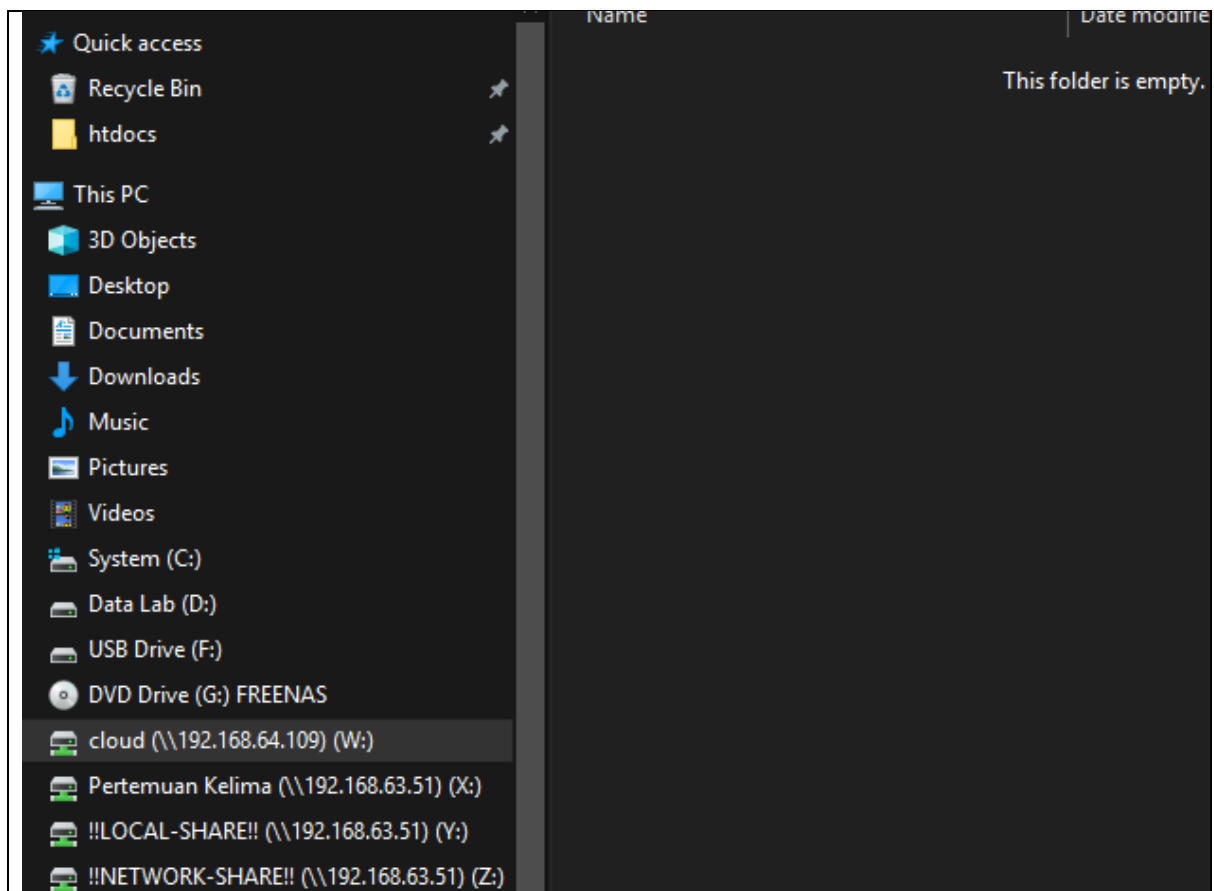
6. Tampilkan hasil dari pembuatan shares tambahan untuk 4 lab pada menu Sharing -> Windows (SMB) Shares



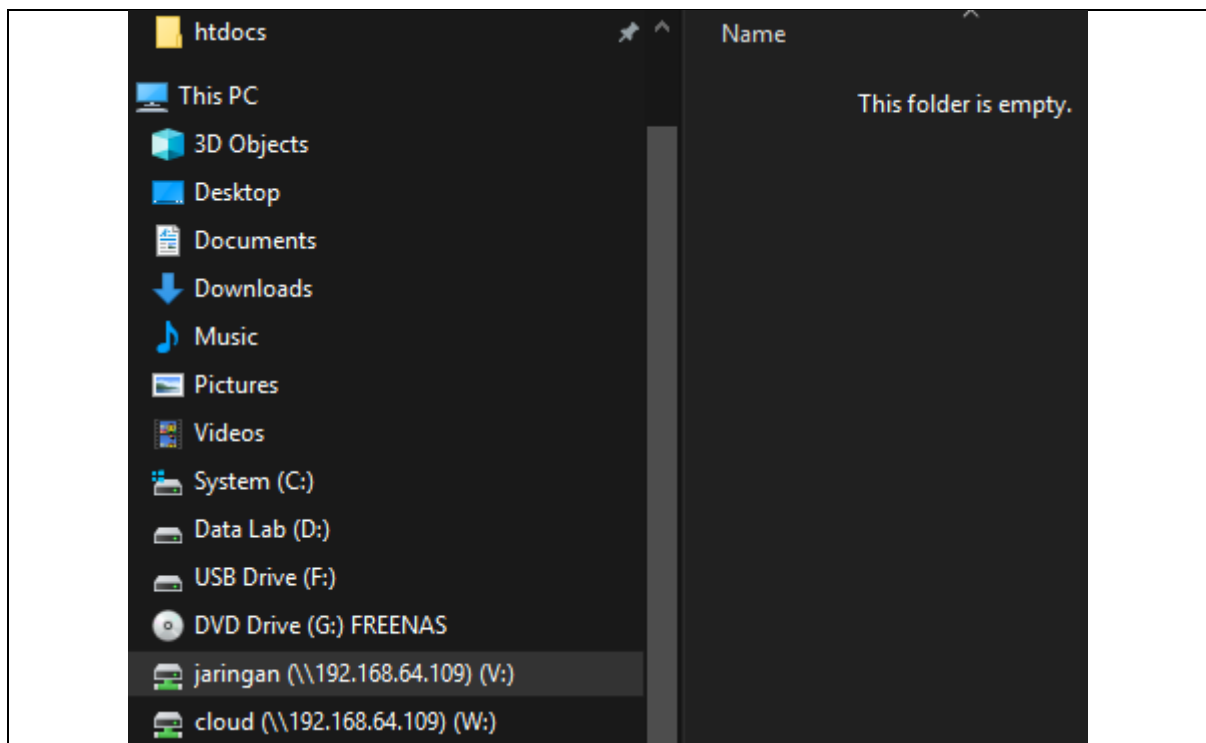
The screenshot shows the Samba web interface. At the top, there is a search bar labeled 'Filter Samba' and a 'COLUMNS' dropdown menu with an 'ADD' button. Below this is a table with three columns: 'Name', 'Path', and an empty column for actions. The table contains four rows of shares:

| Name | Path | |
|-----------|---------------------|---|
| cloud | /mnt/data-cloud | ⋮ |
| jaringan | /mnt/data-jaringan | ⋮ |
| komputasi | /mnt/data-komputasi | ⋮ |
| sisdig | /mnt/data-sisdig | ⋮ |

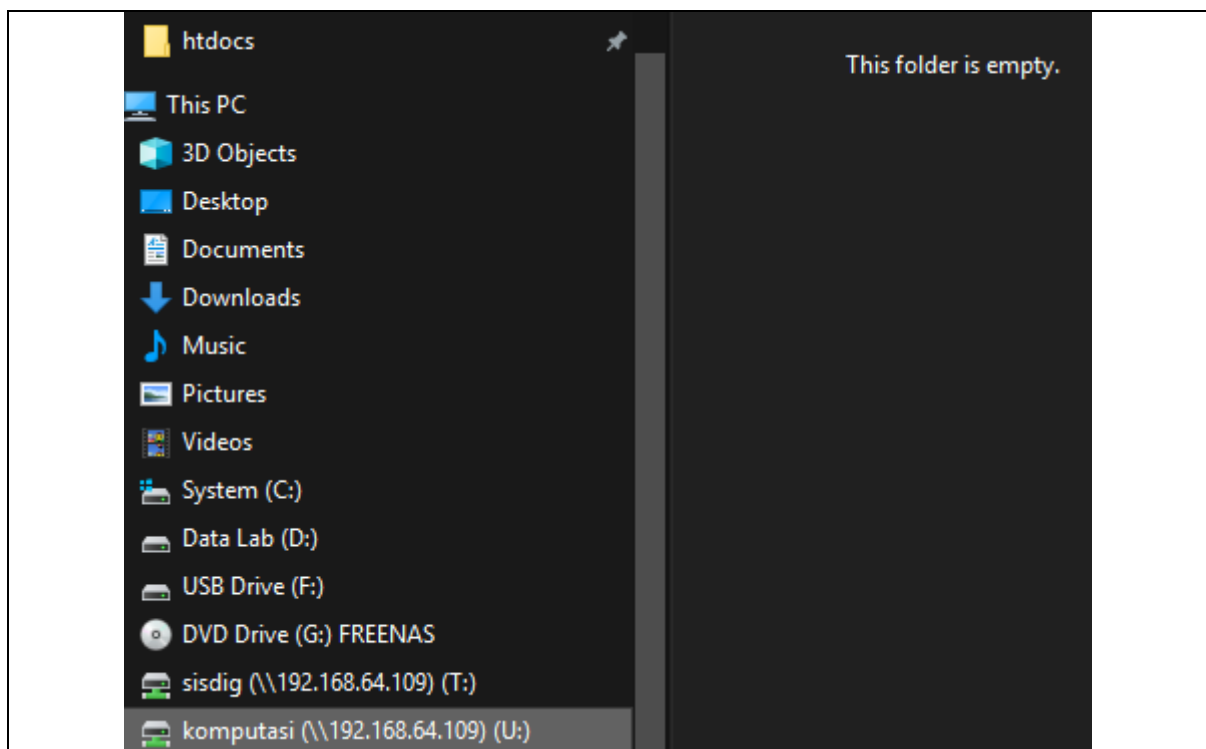
7. Tampilkan hasil akses shares pada Windows Explorer (hasil mapping) untuk Lab Cloud (yang pertama kali dibuat)



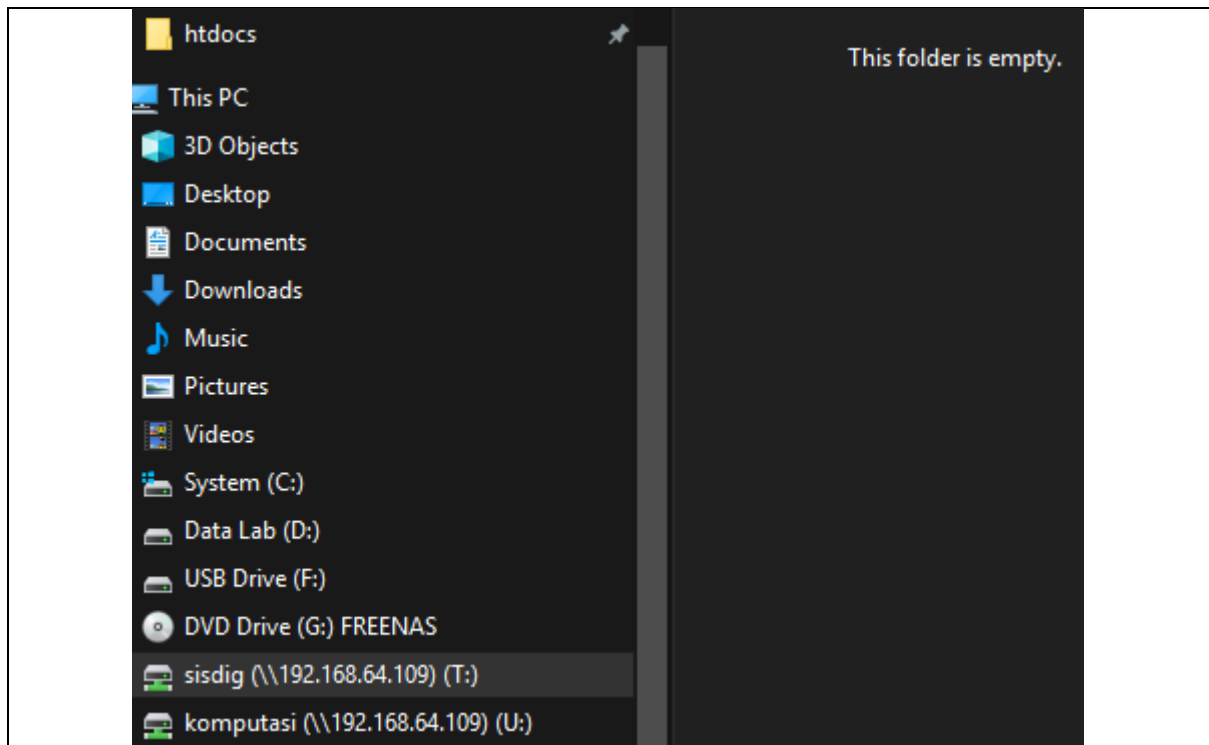
8. Tampilkan hasil akses shares untuk Lab Jaringan



9. Tampilkan hasil akses shares untuk Lab Komputasi



10. Tampilkan hasil akses shares untuk Lab Sisdig



DOKUMENTASI PERTEMUAN KELIMA (BILA ADA)