



LEMBAR KERJA PRAKTIKUM CLOUD COMPUTING

INSTALASI DAN KONFIGURASI LAYANAN FILE SHARING DENGAN FREENAS

IDENTITAS:

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Kelas:	D
Hari, Tanggal:	Jumat, 06 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
```

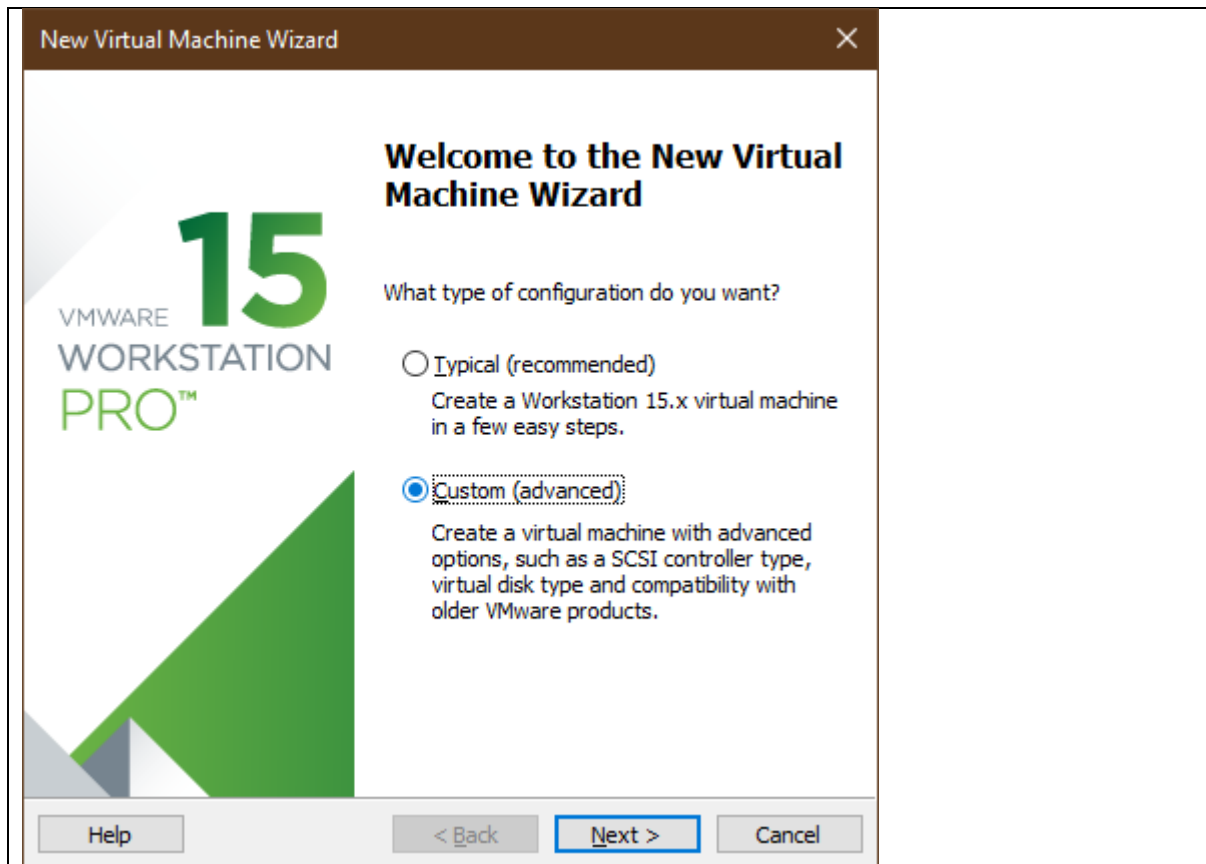
Perintah exit digunakan untuk keluar dari sesi akun aktif

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

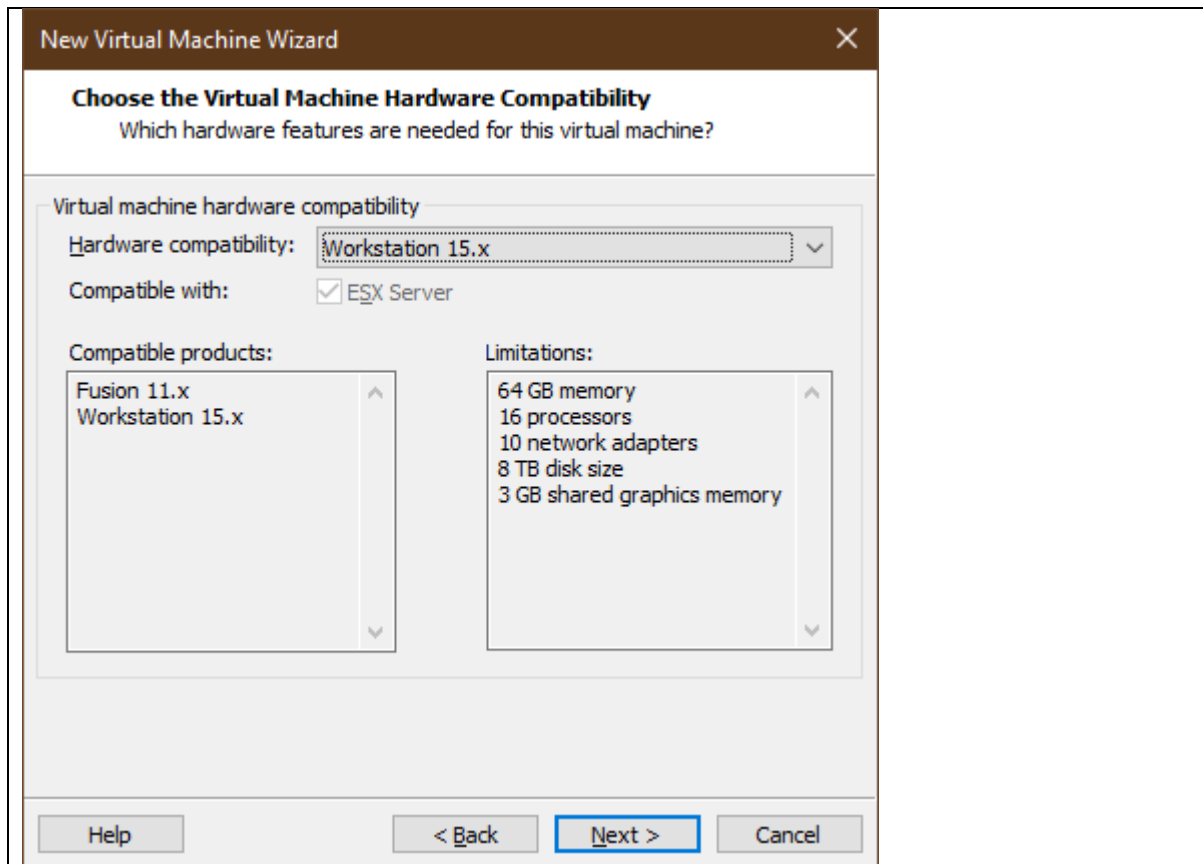


TUGAS BAGIAN PERTAMA – PEMBUATAN VM:

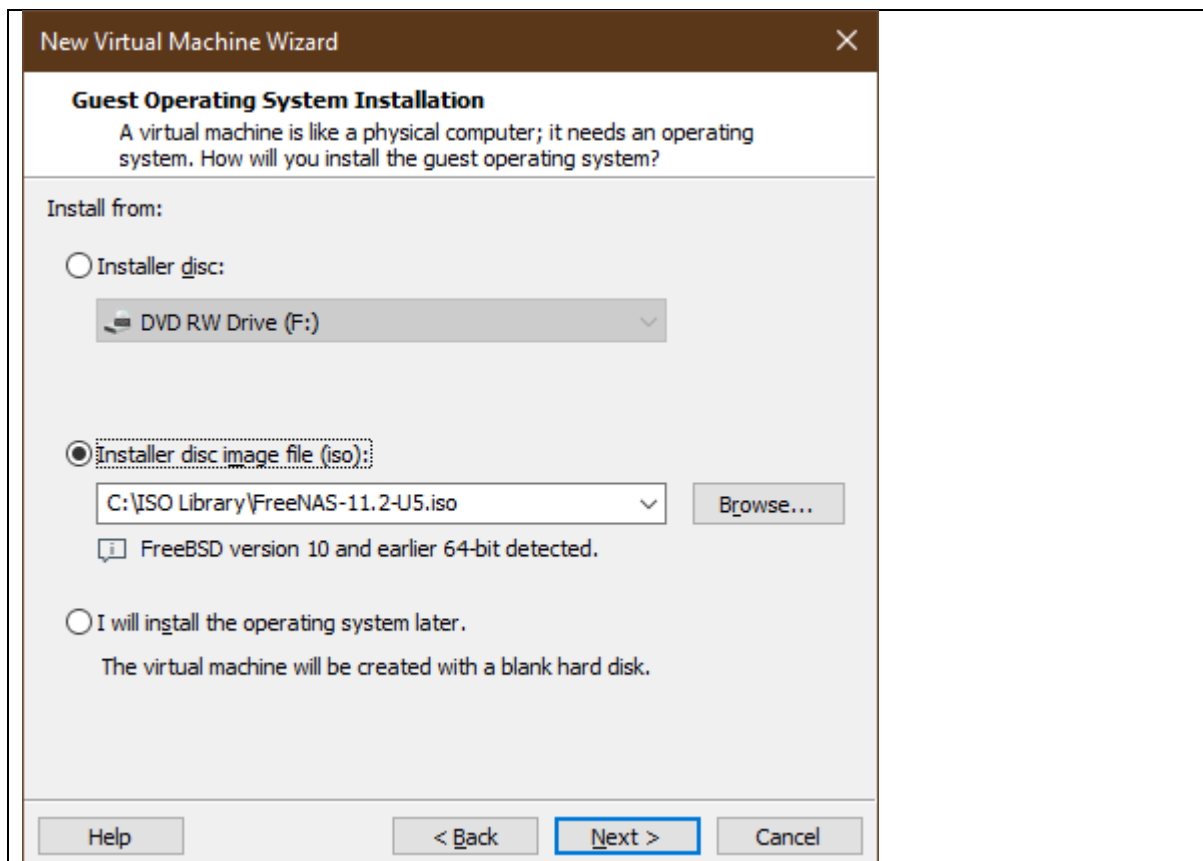
1. Gunakan opsi konfigurasi Custom



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**

New Virtual Machine Wizard

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

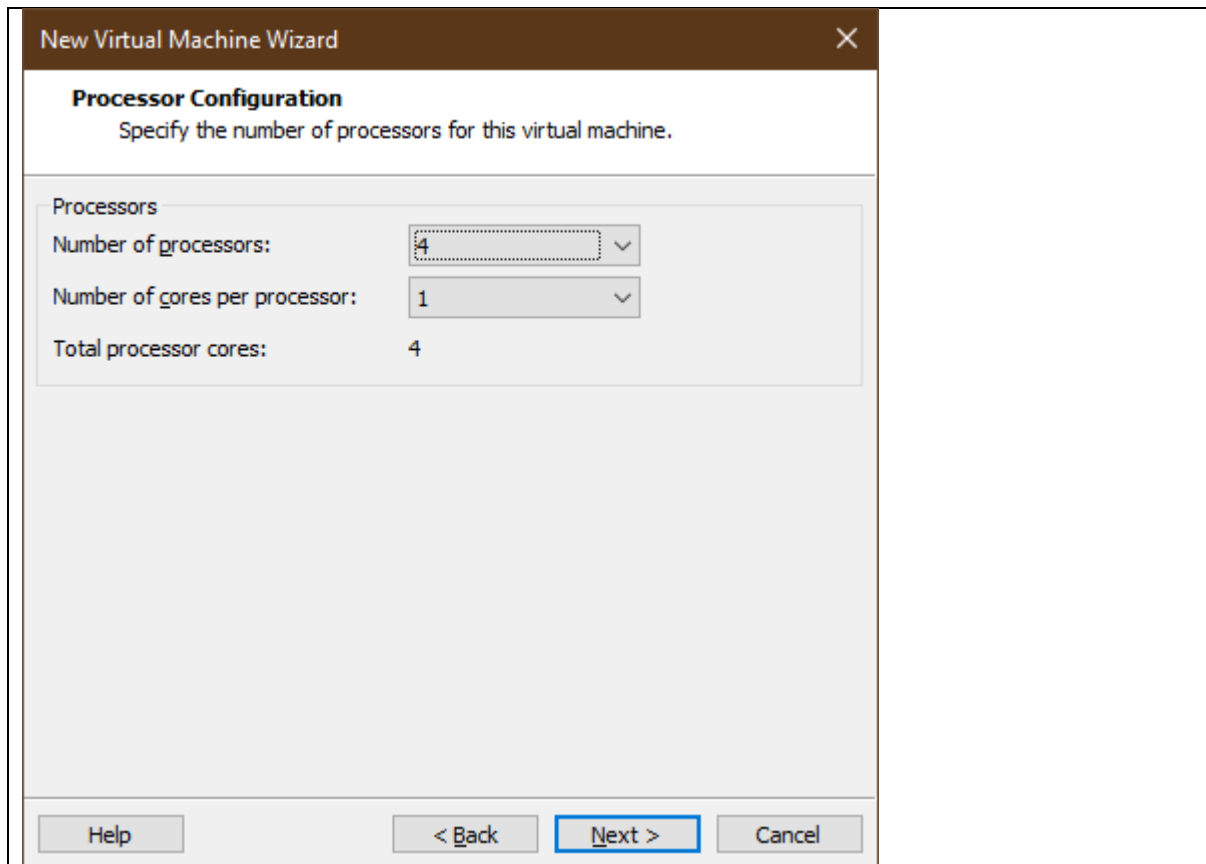
Virtual machine name:
FreeNAS 123180027

Location:
D:\VM-123180027\FreeNAS [Browse...](#)

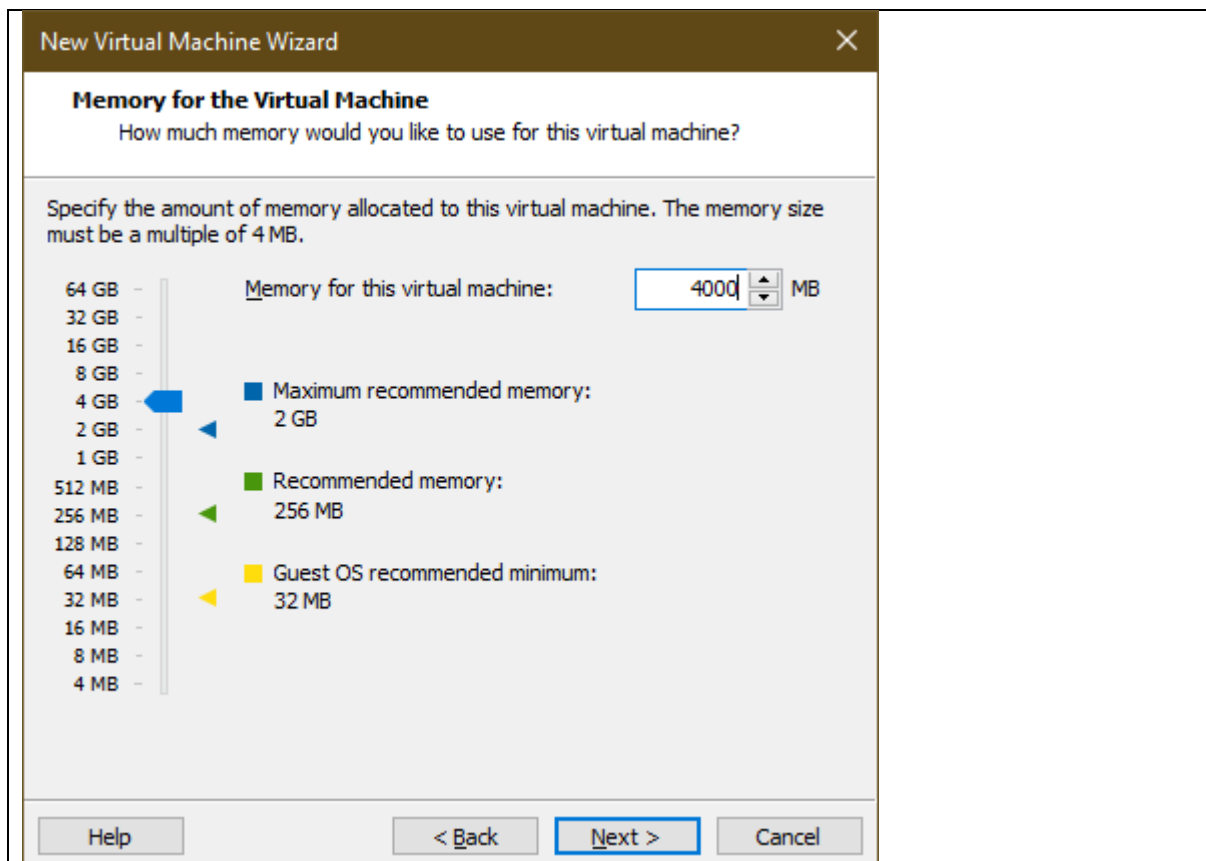
The default location can be changed at Edit > Preferences.

< Back Next > Cancel

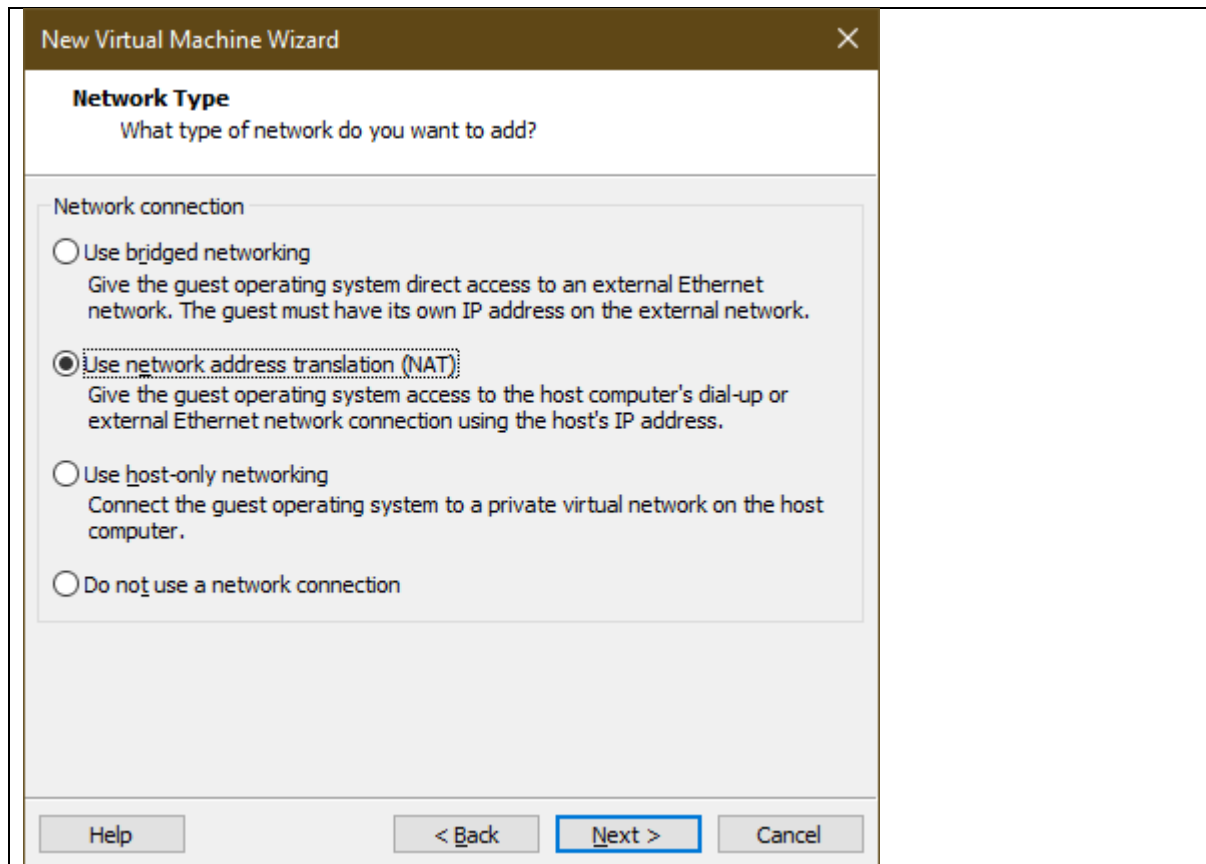
5. Gunakan 4 processor dan 1 core



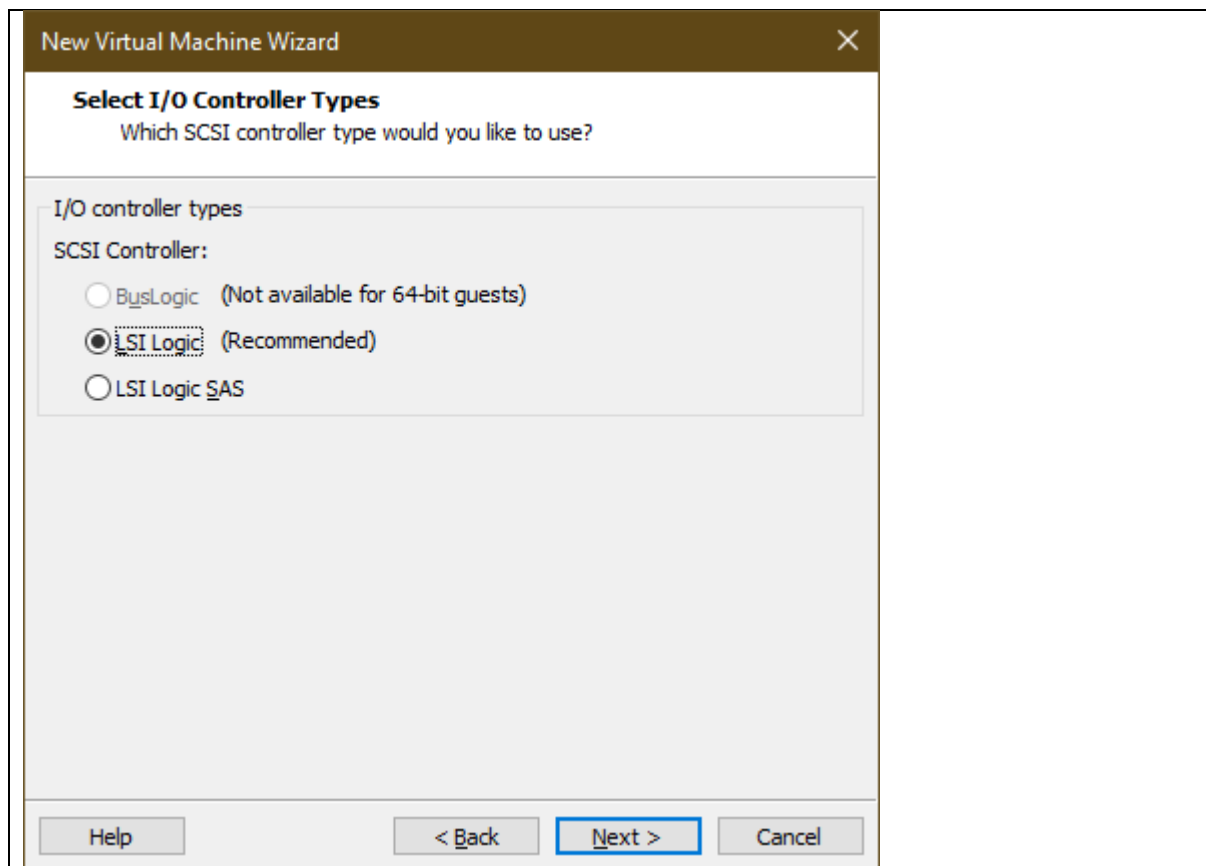
6. Gunakan RAM sebesar 4 GB



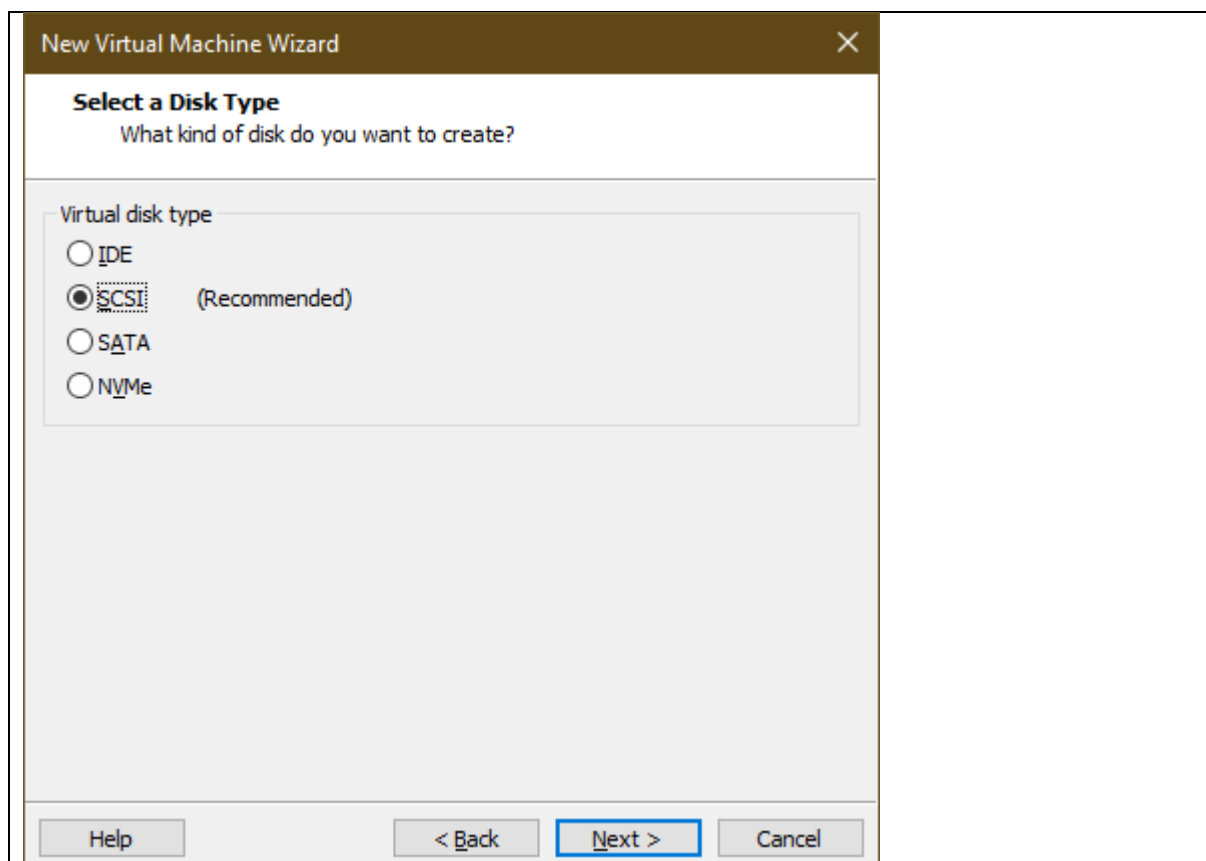
7. Gunakan mode jaringan NAT



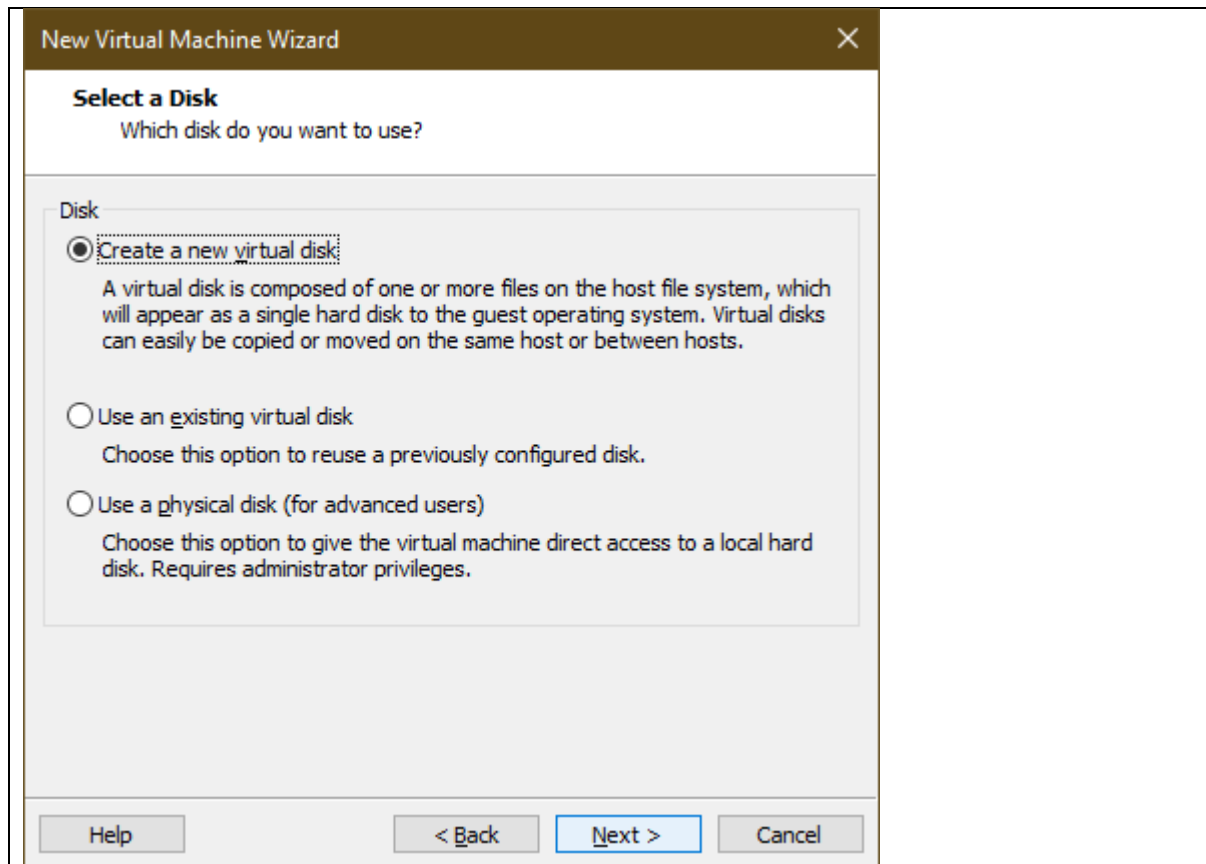
8. Gunakan pengaturan default I/O Controller



9. Gunakan pengaturan default Virtual Disk Type



10. Pilih opsi buat virtual disk baru



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

New Virtual Machine Wizard [X]

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.

Help < Back **Next >** Cancel

12. Gunakan pengaturan default untuk nama disk

New Virtual Machine Wizard [X]

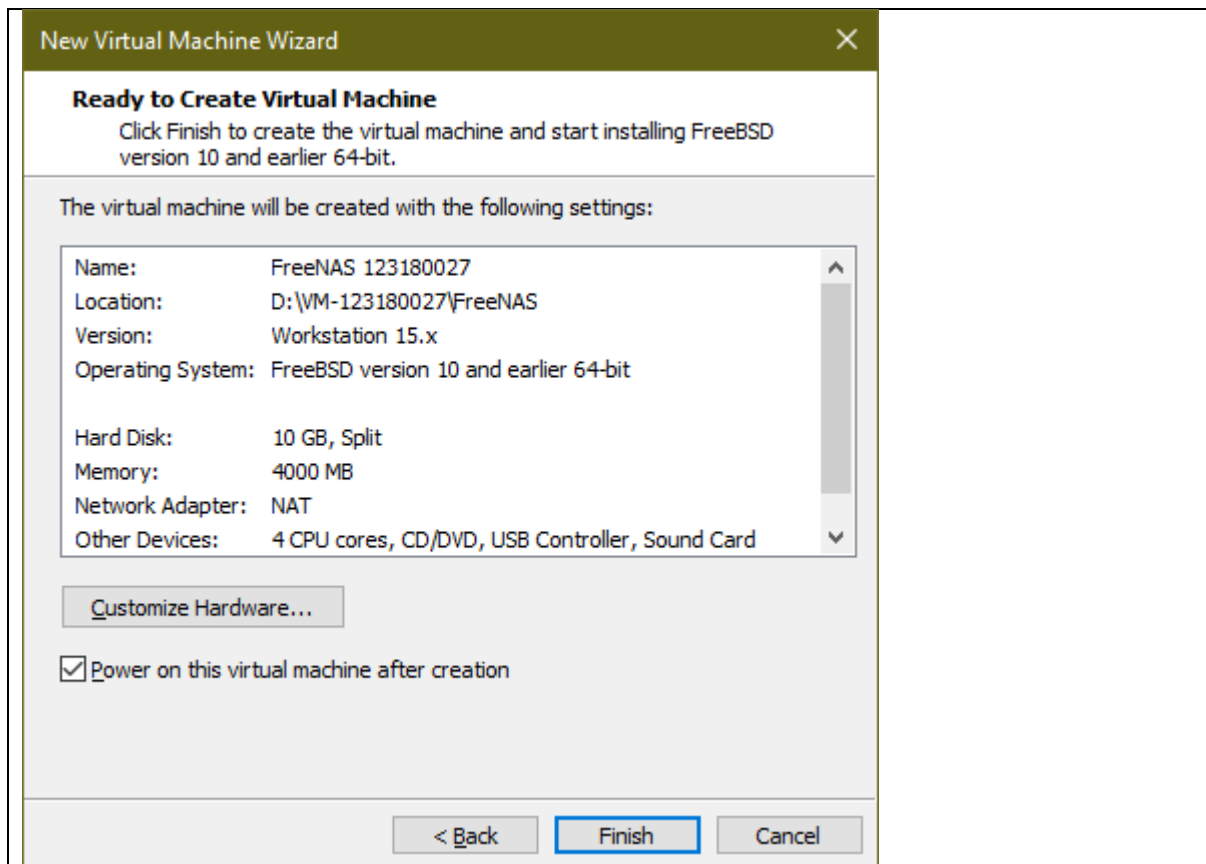
Specify Disk File
Where would you like to store the disk file?

Disk file
A 10 GB virtual disk be created using multiple disk files. The disk files will be automatically named based on this file name.

Browse...

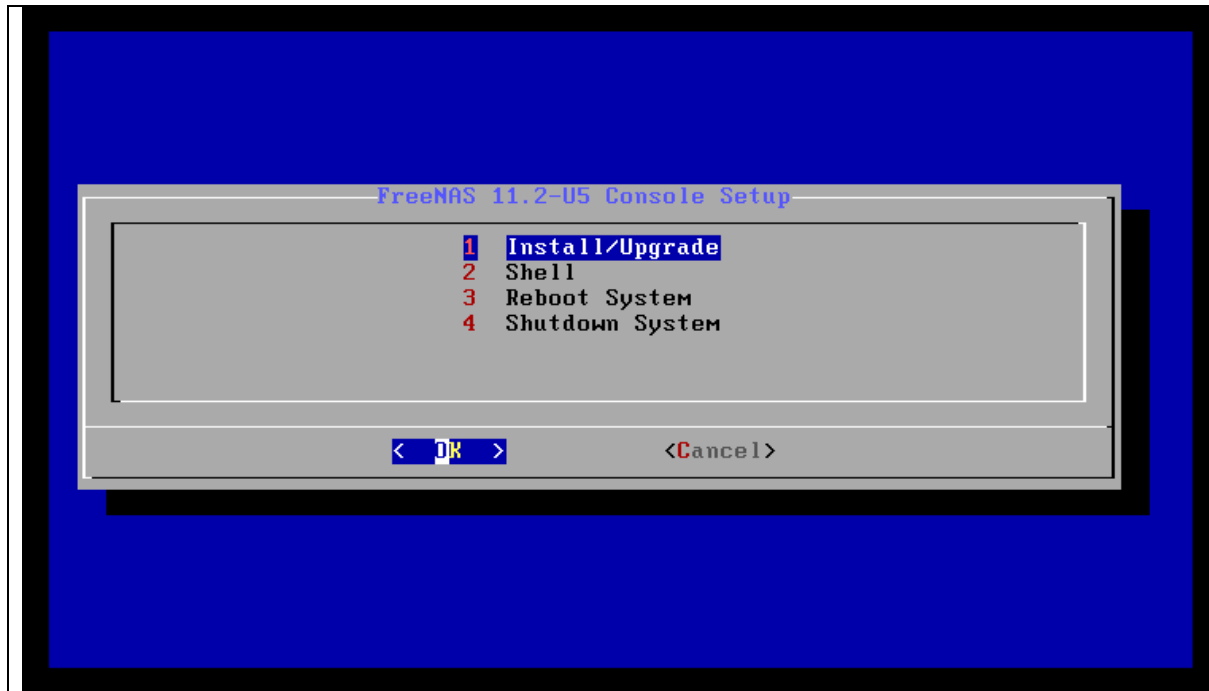
Help < Back **Next >** Cancel

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

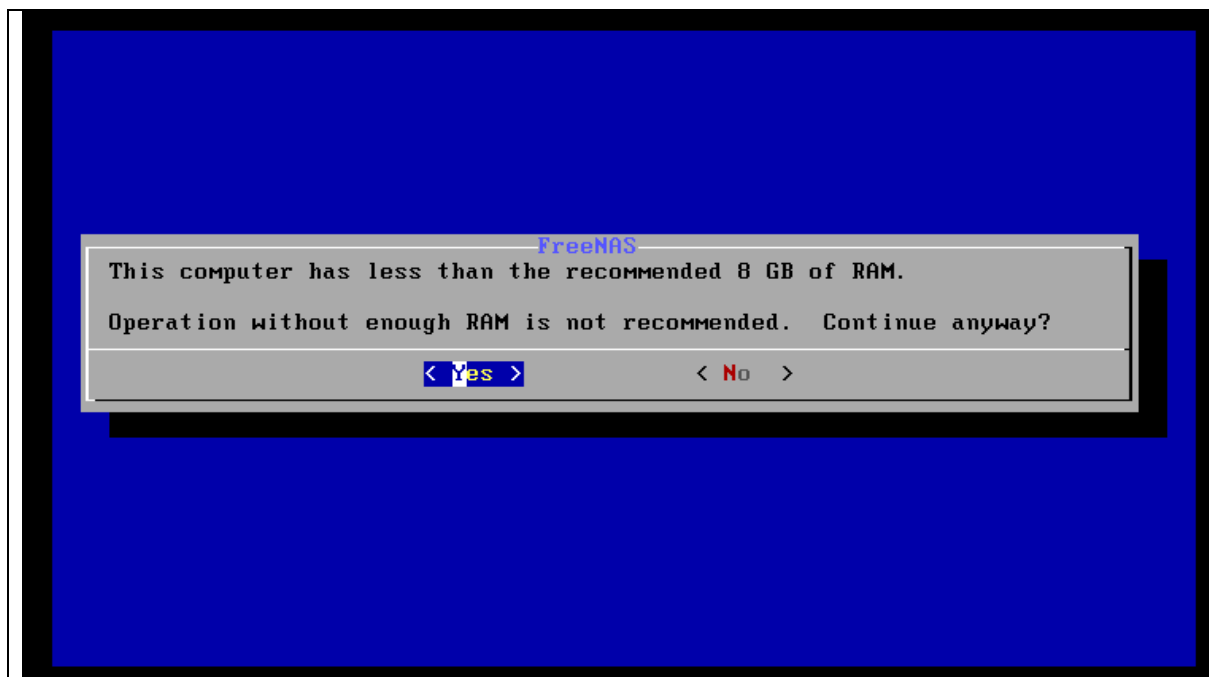


TUGAS BAGIAN KEDUA – INSTALASI FREENAS:

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



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



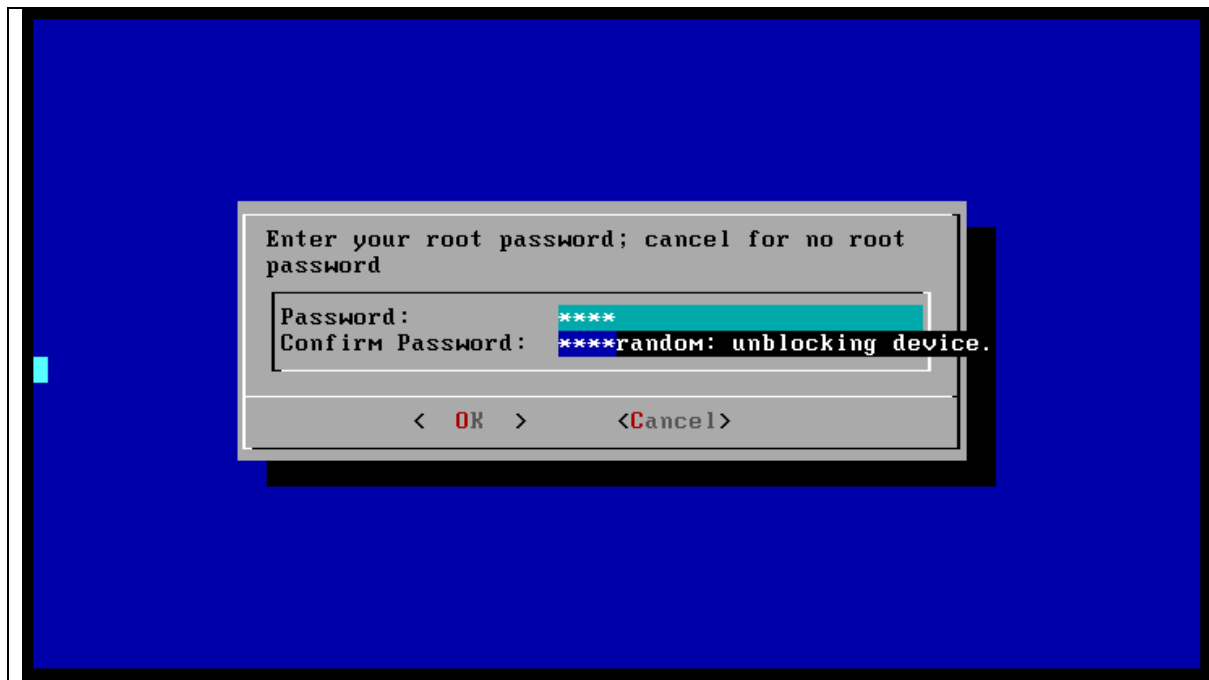
3. Tampilan pemilihan destination media untuk dipasang FreeNAS, pilih da0



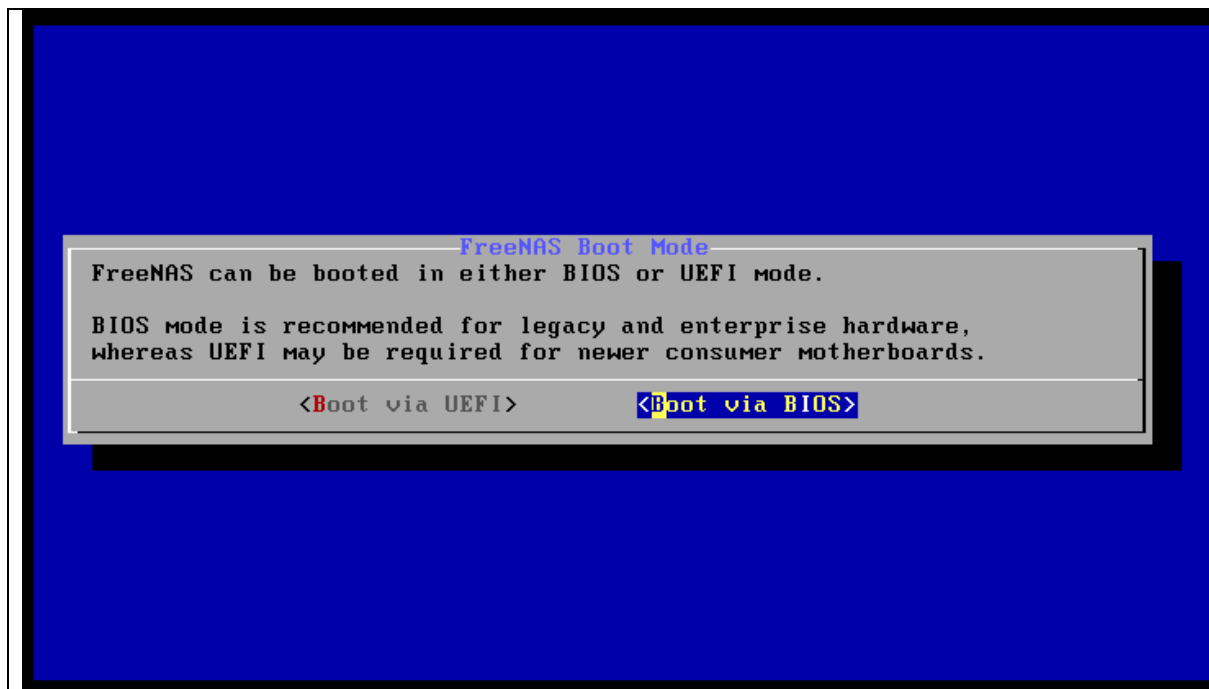
4. Tampilan konfirmasi penghapusan/format media yang terpilih, pilih Yes



5. Tampilan pengaturan kata sandi, gunakan NIM atau bebas



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 0.041578 secs (50438498 bytes/sec)
dd: /dev/da0: end of device
3+0 records in
2+0 records out
2097152 bytes transferred in 0.006119 secs (342704262 bytes/sec)
da0 created
da0p1 added
da0p2 added
gmirror: Invalid class name.
da0 destroyed
da0 created
da0p1 added
da0p2 added
active set on da0
Installing base-os (1 of 4)
....10....20....30....40....50....

```

```

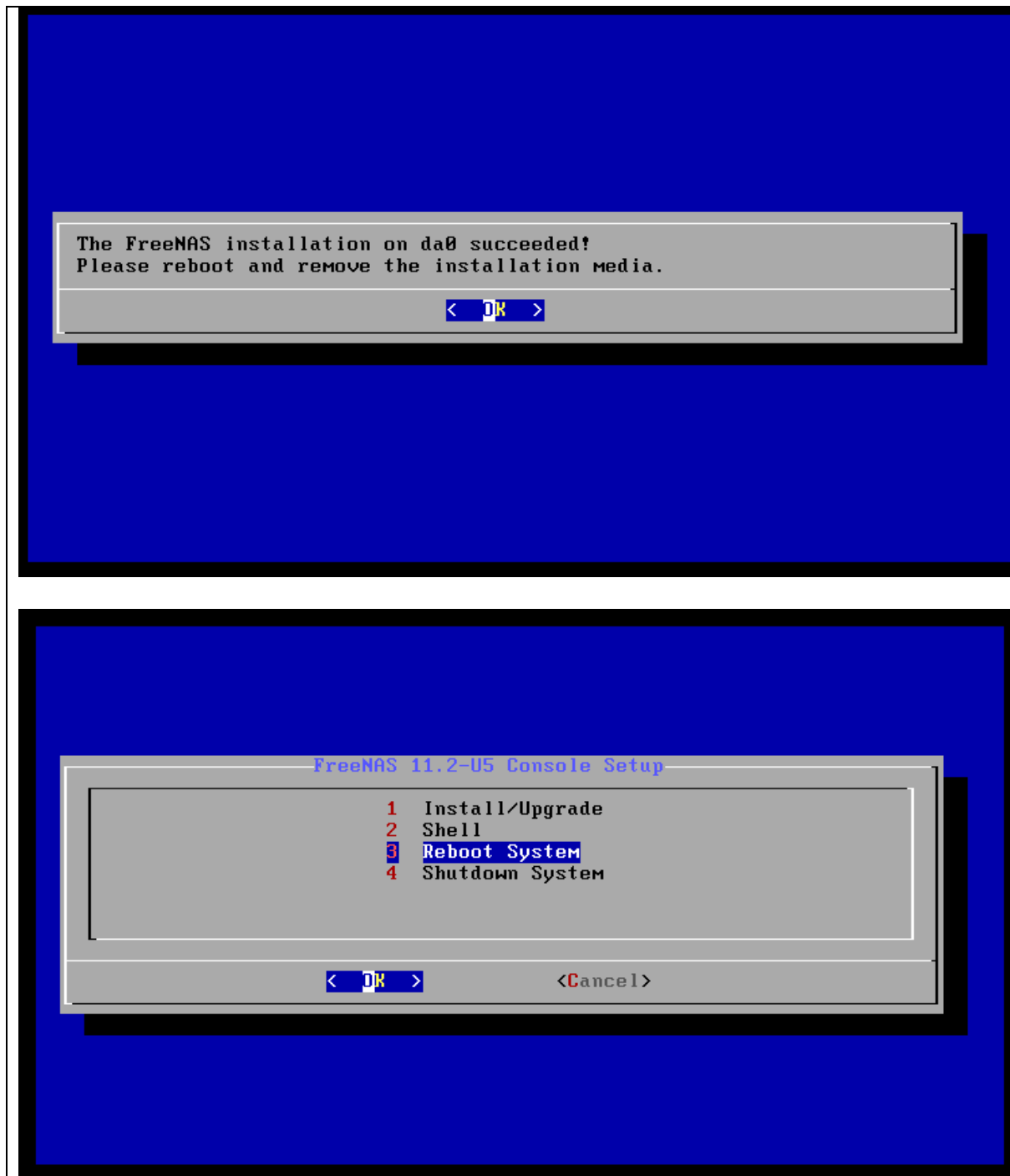
./spool/lpd missing (created)
./spool/mqueue missing (created)
./spool/opielocks missing (created)
./spool/output missing (created)
./spool/output/lpd missing (created)
./tmp missing (created)
./tmp/vi.recover missing (created)
./unbound missing (created)
./unbound/conf.d missing (created)
./yp missing (created)
ELF ldconfig path: /lib /usr/lib /usr/lib/compat /usr/local/lib /usr/local/lib/e
2fsprogs /usr/local/lib/nss /usr/local/lib/perl5/5.26/mach/CORE /usr/local/lib/s
amba4
32-bit compatibility ldconfig path:
Stamping GPT loader on: da0
da0p1 modified
partcode written to da0p1
bootcode written to da0

Changing password for root

Password successfully changed.

```

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



9. Tampilan proses booting menuju FreeNAS OS


```

  _____
 /         \
|   _   _   |
|  (X)  (X)  |
|   _   _   |
 \_____/
Welcome to FreeNAS

```

1. Boot FreeNAS [Enter]
2. Boot FreeNAS (Serial Console)

Options:

3. Configure Boot Options...
4. Select Boot Environment...

```

+mmdhs/. .: +sydmNMM
hMMMMMMdydNMMMMMMMMM:
yMMMMMMMMMMMMMMMMNNNo
/MMMMMMMMMMMMMMMMMmho.
NMMMMMMMMMMMMMMMMMm: ' .: yN
MMMMMMMMMMMMMMMMMmddmydmNMMo
MMMMMMMMMMMMMMMMMs./yMMMMMMMMy-
:NMMMMMMMMMMMMM. ' .oMMm- '
-mMMMMMMMMMMMMMo/:/yNMh.
.mhdMMMMMMMMMMMMMh/
+' '+yMMMMMMMMNmy+'

```

```
/boot/kernel/kernel text=0x160c8f0 <
```

```

,0xdc000-0xdffff,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
ugen1.1: <0x15ad EHCI root HUB> at usb1
uhub0: <0x15ad EHCI root HUB, class 9/0, rev 2.00/1.00, addr 1> on usb1
ugen0.1: <0x15ad UHCI root HUB> at usb0
uhub1: <0x15ad UHCI root HUB, class 9/0, rev 1.00/1.00, addr 1> on usb0
uhub1: 2 ports with 2 removable, self powered
ugen0.2: <UMware VMware Virtual USB Mouse> at usb0
ugen0.3: <vendor 0x0e0f UMware Virtual USB Hub> at usb0
uhub2 on uhub1
uhub2: <UMware Virtual USB Hub> on usb0
uhub0: 6 ports with 6 removable, self powered
uhub2: 7 ports with 7 removable, self powered

```

Beginning ZFS volume imports

```
ZFS volume imports complete
Creating 'Initial-Install' boot environment...
Created successfully
ELF ldconfig path: /lib /usr/lib /usr/lib/compat /usr/local/lib /usr/local/lib/elf
2fsprogs /usr/local/lib/nss /usr/local/lib/perl5/5.26/mach/CORE /usr/local/lib/s
amba4
32-bit compatibility ldconfig path:
Loading kernel modules:
pmc: Unknown Intel CPU.
hwpmc: SOFT/16/64/0x67<INT,USR,SYS,REA,WRI>
Setting hostname: freenas.local.
Setting up harvesting: [UMA],[FS_ATIME],SWI, INTERRUPT,NET_NG,NET_ETHER,NET_TUN,M
OUSE,KEYBOARD,ATTACH,CACHED
Feeding entropy: .
Loading vmmemctl kernel module: VMware memory control driver initialized
done.
Loading vmxnet kernel module: done.
Loading vmblock kernel module: done.
Starting dhclient.
DHCPDISCOVER on em0 to 255.255.255.255 port 67 interval 6
DHCPOFFER from 192.168.116.254
```

[illegible]

10. Tampilan hasil akhir booting yang menunjukkan Console Setup

```
Thu Mar  5 22:42:52 PST 2020
FreeBSD/amd64 (freenas.local) (ttyv0)

Console setup
-----

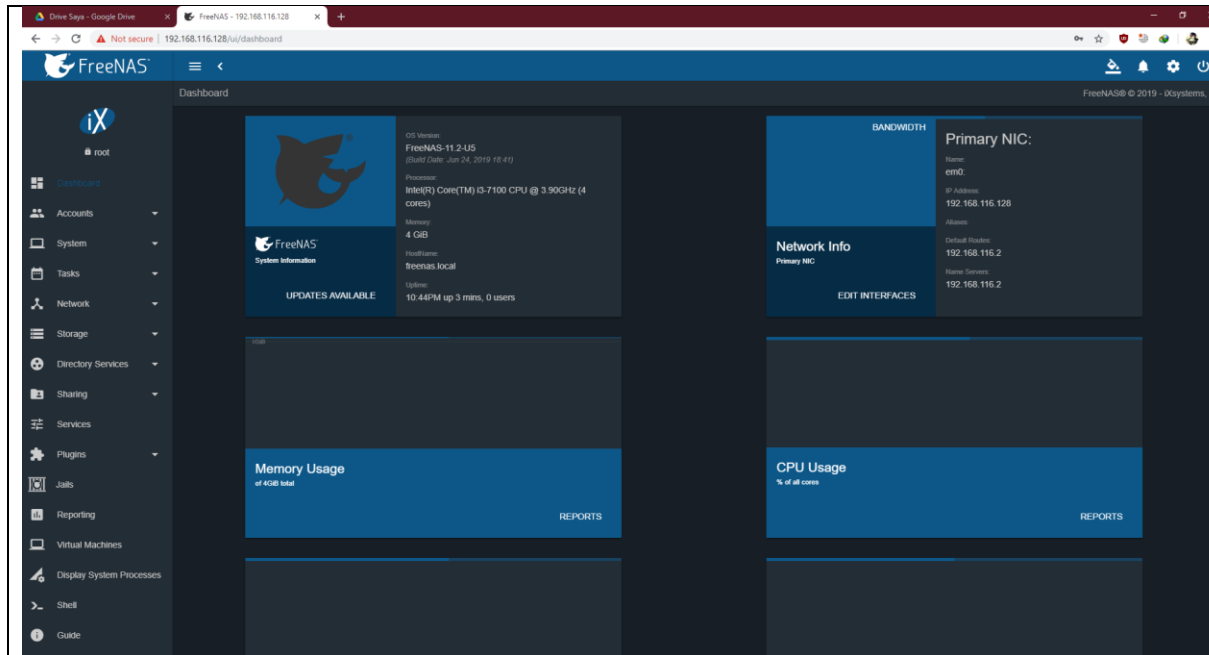
1) Configure Network Interfaces
2) Configure Link Aggregation
3) Configure VLAN Interface
4) Configure Default Route
5) Configure Static Routes
6) Configure DNS
7) Reset Root Password
8) Reset Configuration to Defaults
9) Shell
10) Reboot
11) Shut Down

The web user interface is at:
http://192.168.116.128

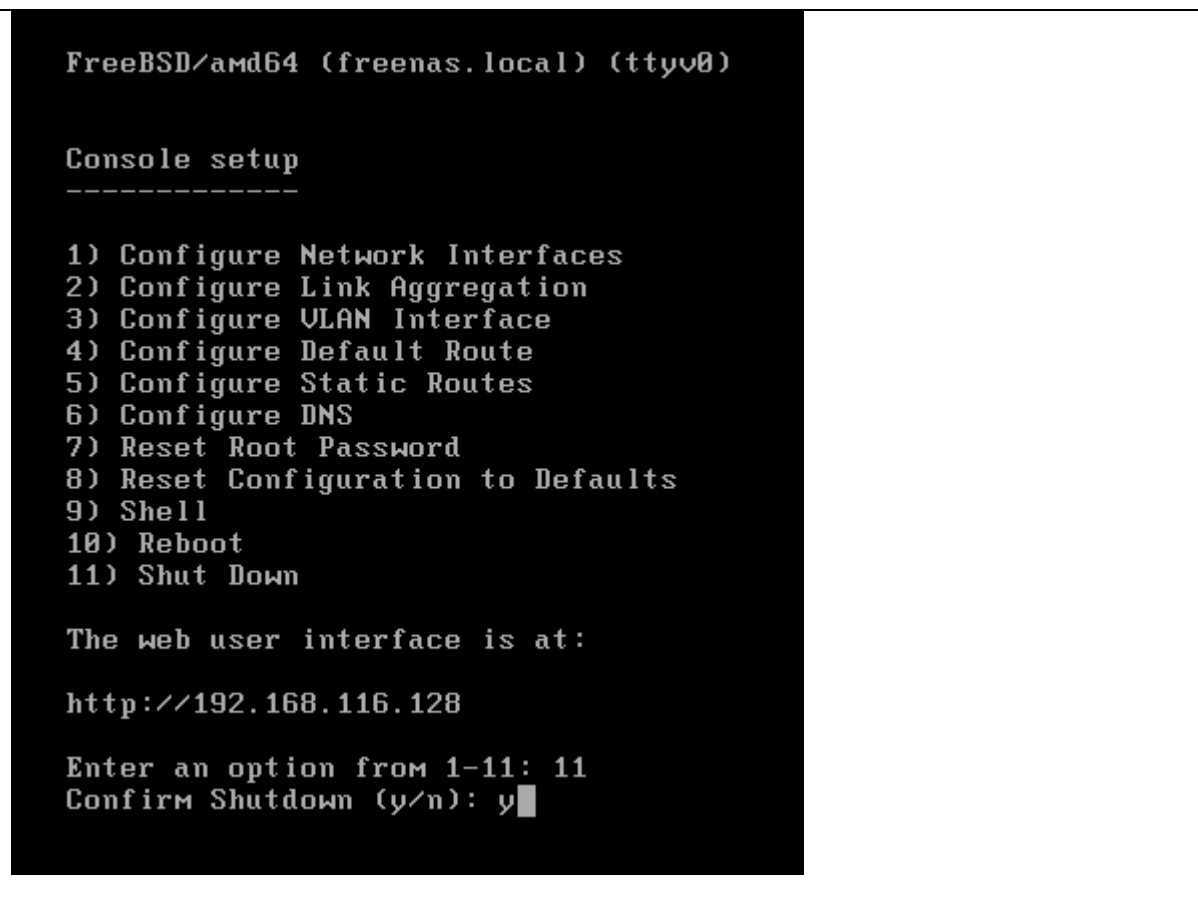
Enter an option from 1-11: █
```

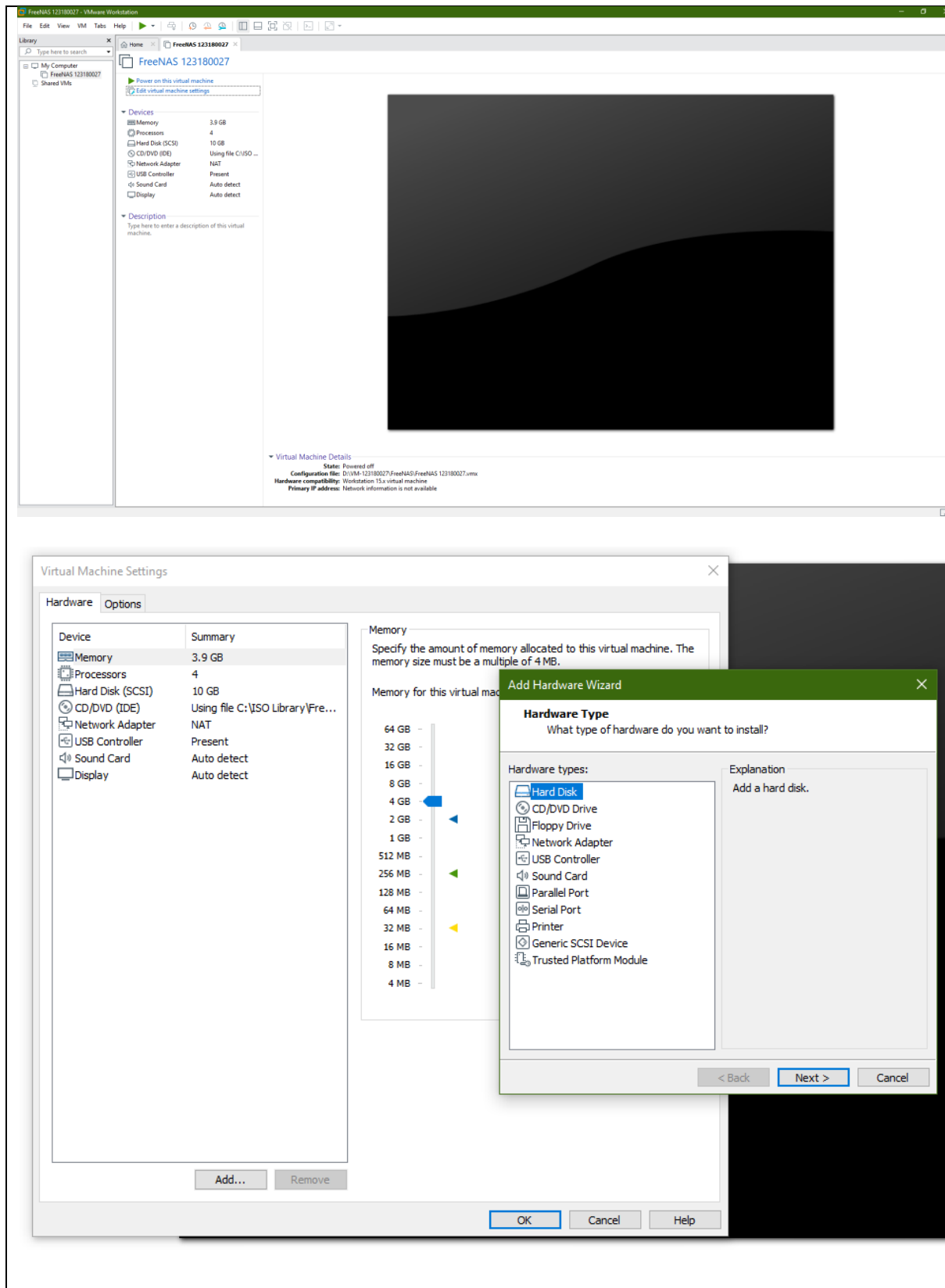
TUGAS BAGIAN KETIGA – KONFIGURASI FREENAS:

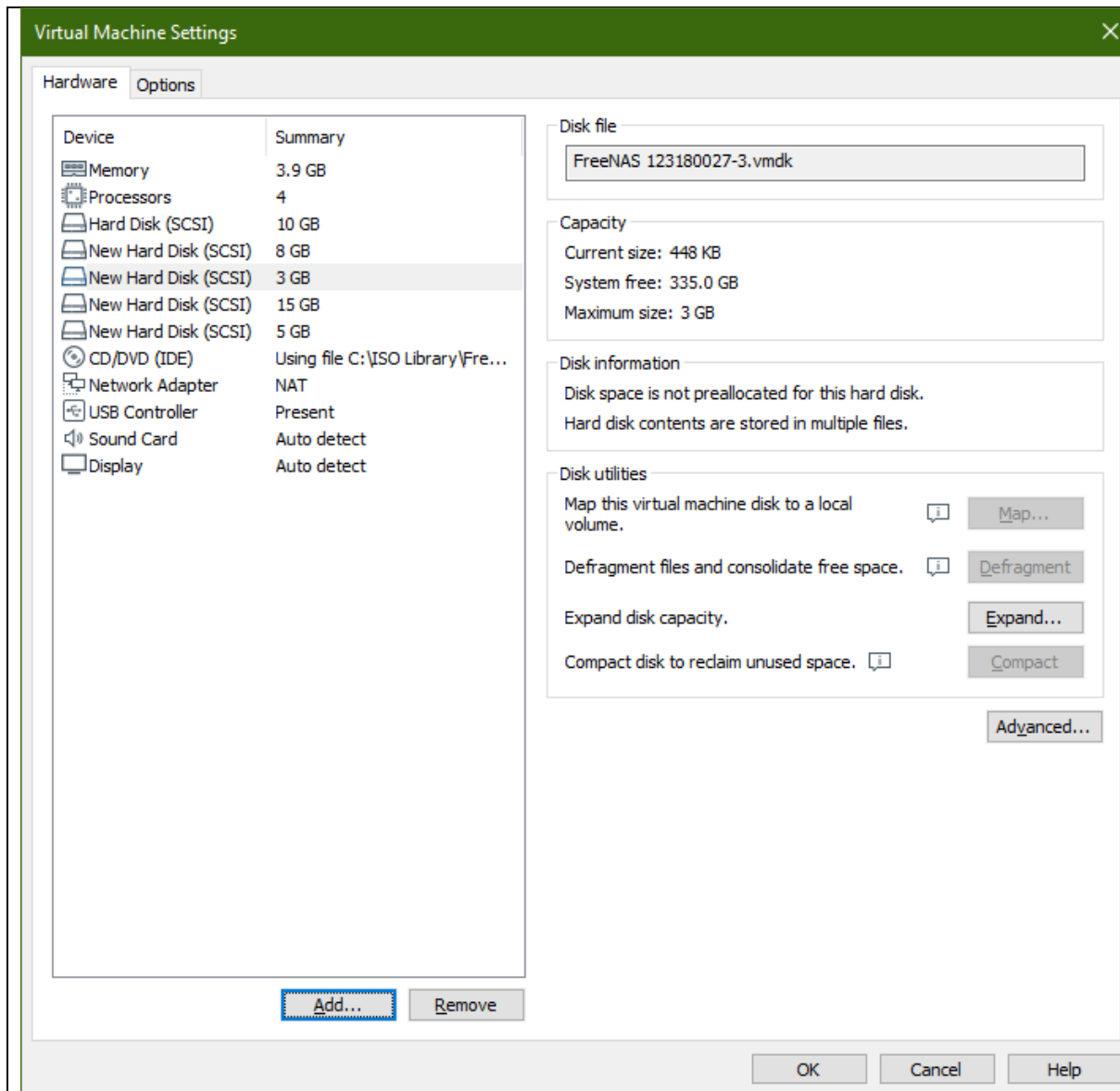
1. Tampilan dashboard setelah login FreeNAS



2. Tampilan konfigurasi VM pada Eksperimen #1







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

```
Thu Mar  5 23:00:18 PST 2020

FreeBSD/amd64 (freenas.local) (ttyv0)

Console setup
-----

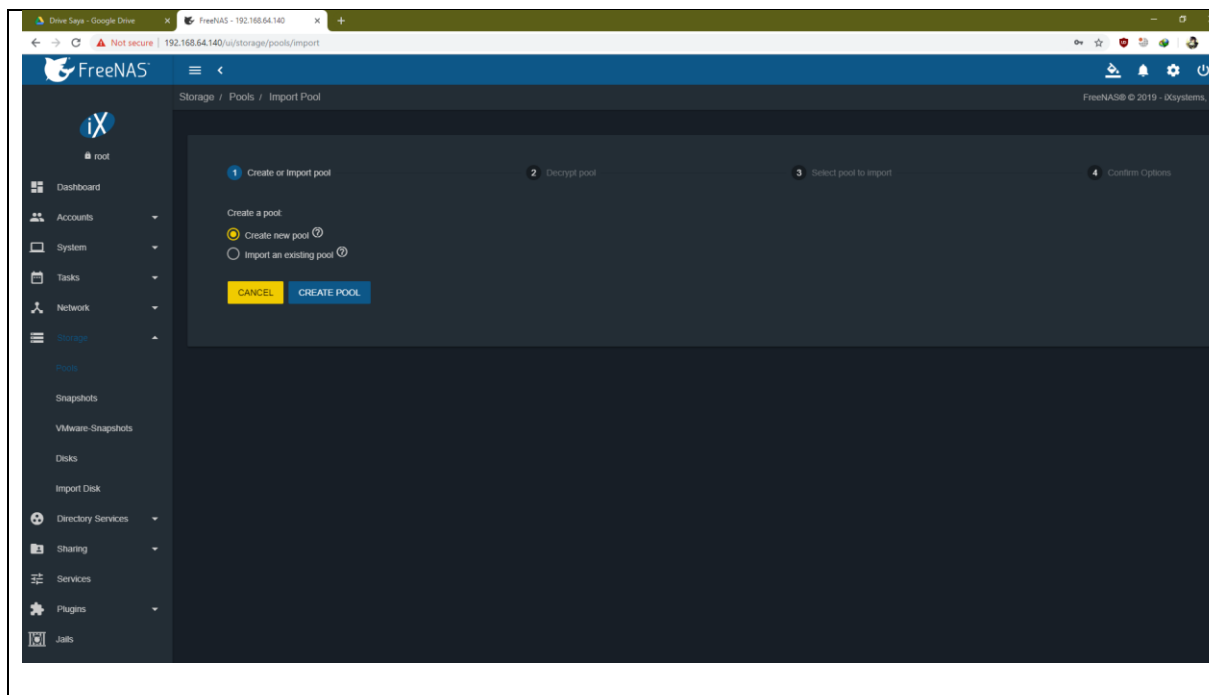
1) Configure Network Interfaces
2) Configure Link Aggregation
3) Configure VLAN Interface
4) Configure Default Route
5) Configure Static Routes
6) Configure DNS
7) Reset Root Password
8) Reset Configuration to Defaults
9) Shell
10) Reboot
11) Shut Down

The web user interface is at:

http://192.168.64.140

Enter an option from 1-11: █
```

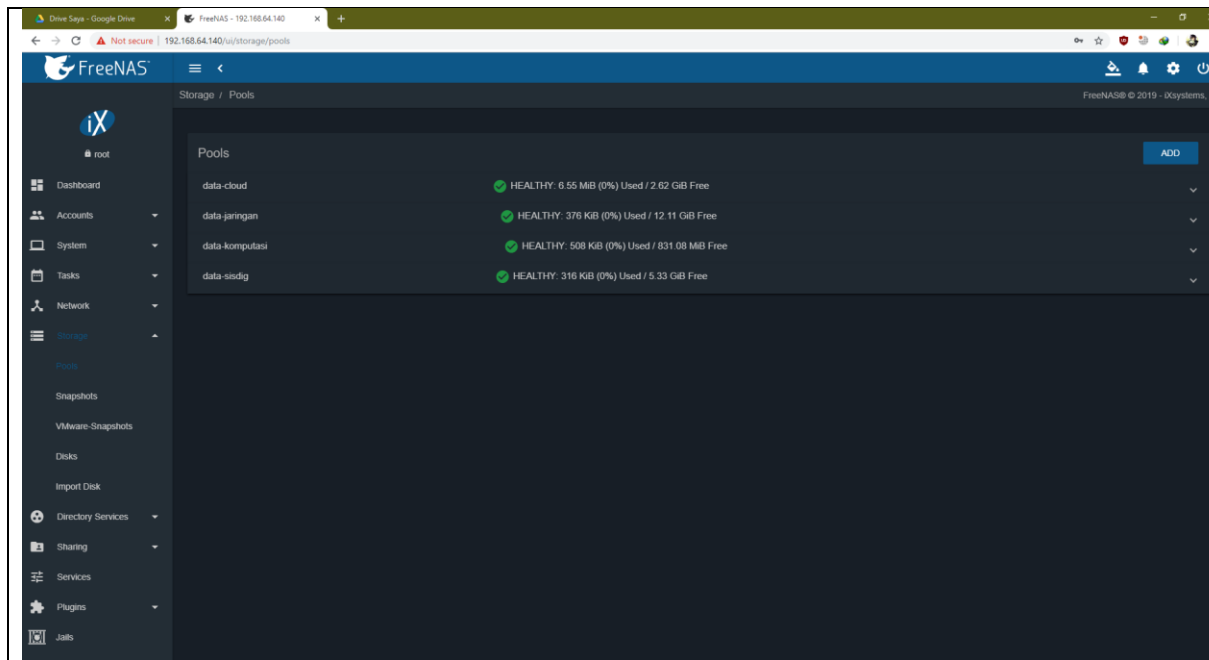
4. Tampilkan hasil dari pembuatan pools tambahan pada menu Storage -> Pools



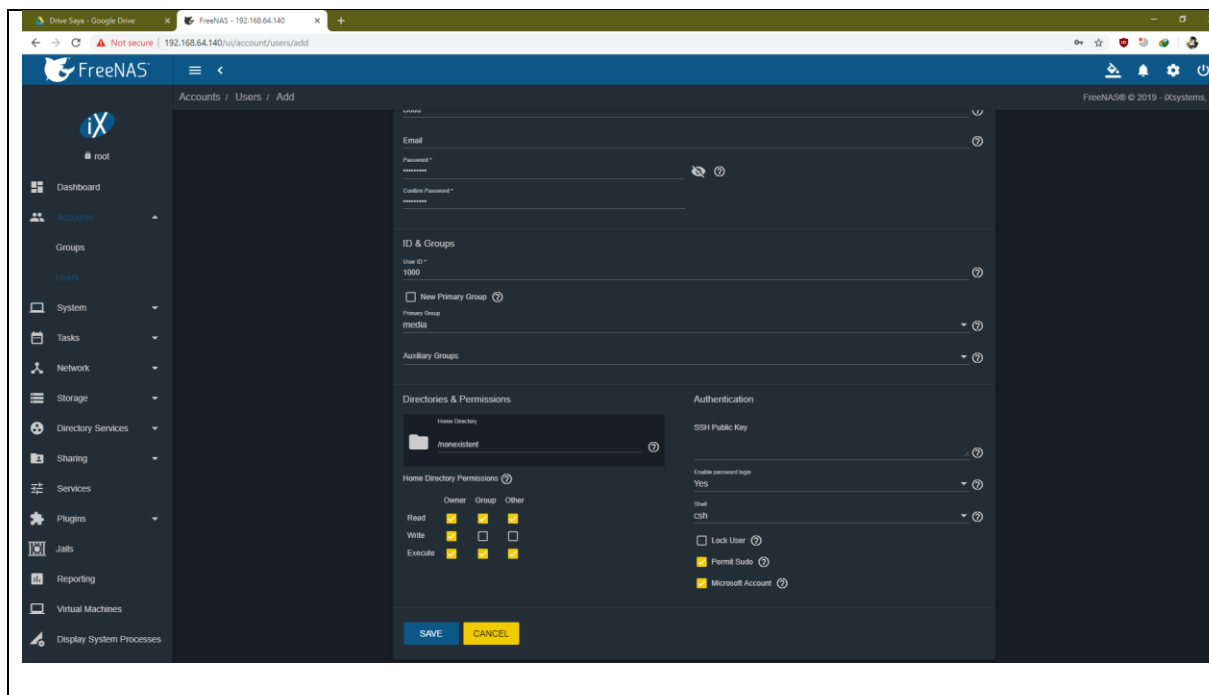
The first screenshot shows the 'Pool Manager' interface in FreeNAS. The 'Name' field is set to 'data-cloud' and 'Encryption' is unchecked. The 'Available Disks' table lists four disks: da1 (15 GiB), da2 (8 GiB), da3 (5 GiB), and da4 (3 GiB). The 'Data VDev' table shows da3 selected (5 GiB) and 0 selected / 1 total. The 'Stripe' dropdown is set to 'Estimated raw capacity: 3 GiB'. The 'Estimated total raw data capacity' is 3 GiB. Buttons for 'CREATE', 'CANCEL', 'ADD DATA', 'ADD CACHE', 'ADD LOG', and 'ADD SPARE' are visible.

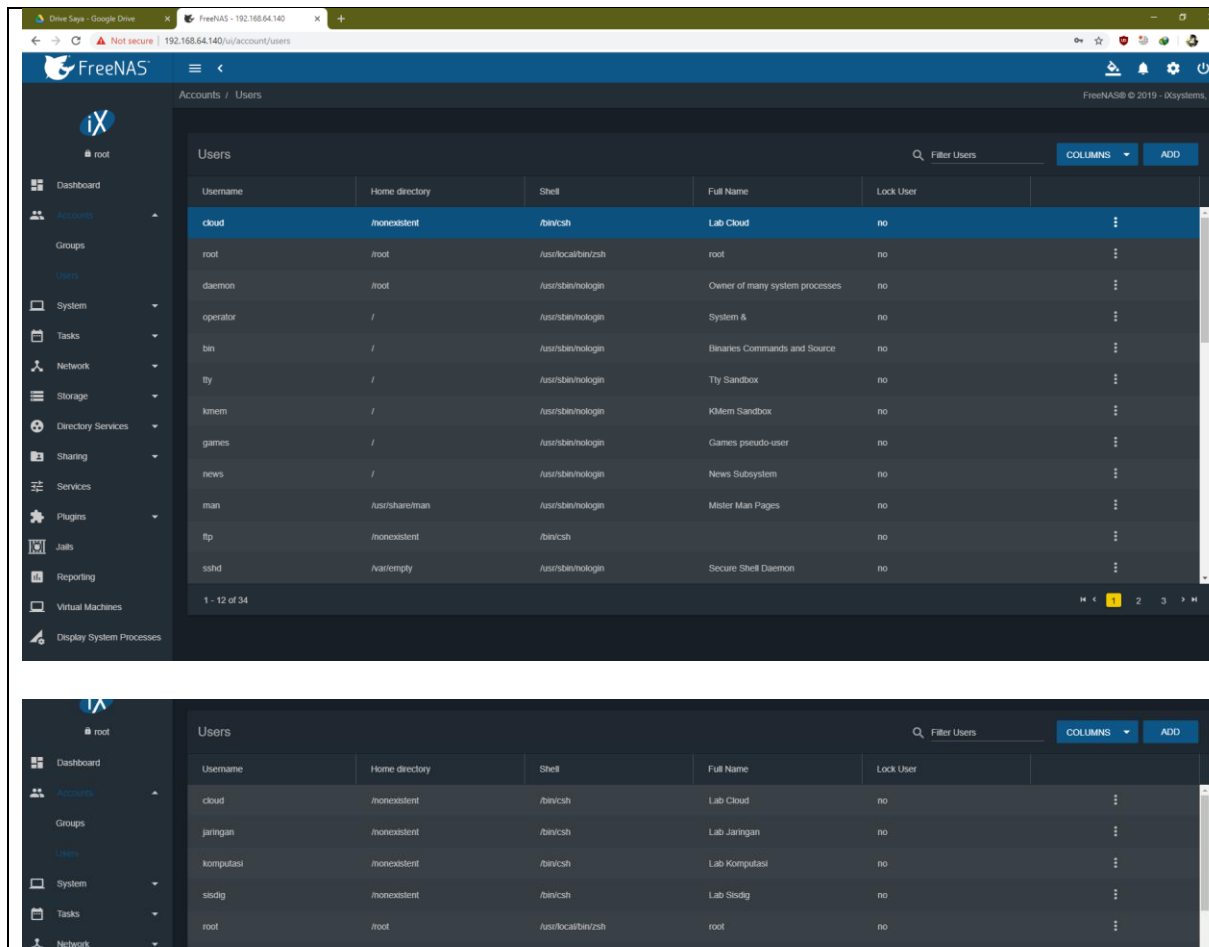
The second screenshot shows the 'Pools' page in FreeNAS. The 'data-cloud' pool is listed with a status of 'HEALTHY: 316 KiB (0%) Used / 2.62 GiB Free'. Below the pool name is a table with the following data:

Name	Type	Used	Available	Compression	Compression Ratio	Readonly	Dedup	Comments
data-cloud	dataset	316 KiB	2.62 GiB	lz4	1.00x	false	off	

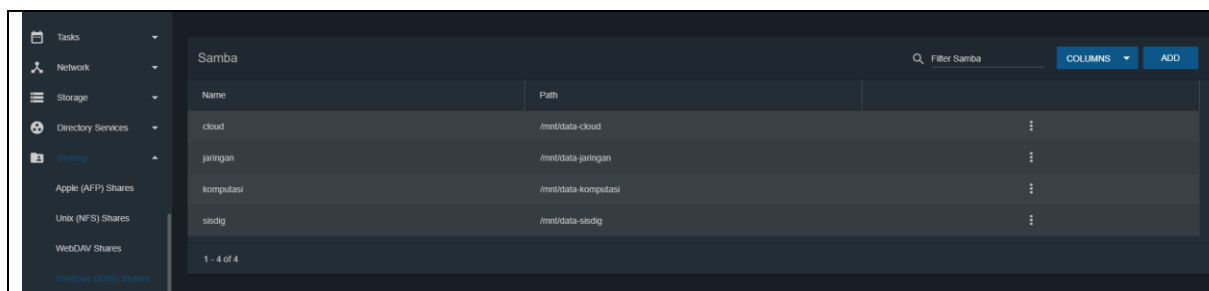


5. Tampilkan hasil dari pembuatan user tambahan pada menu Accounts -> Users

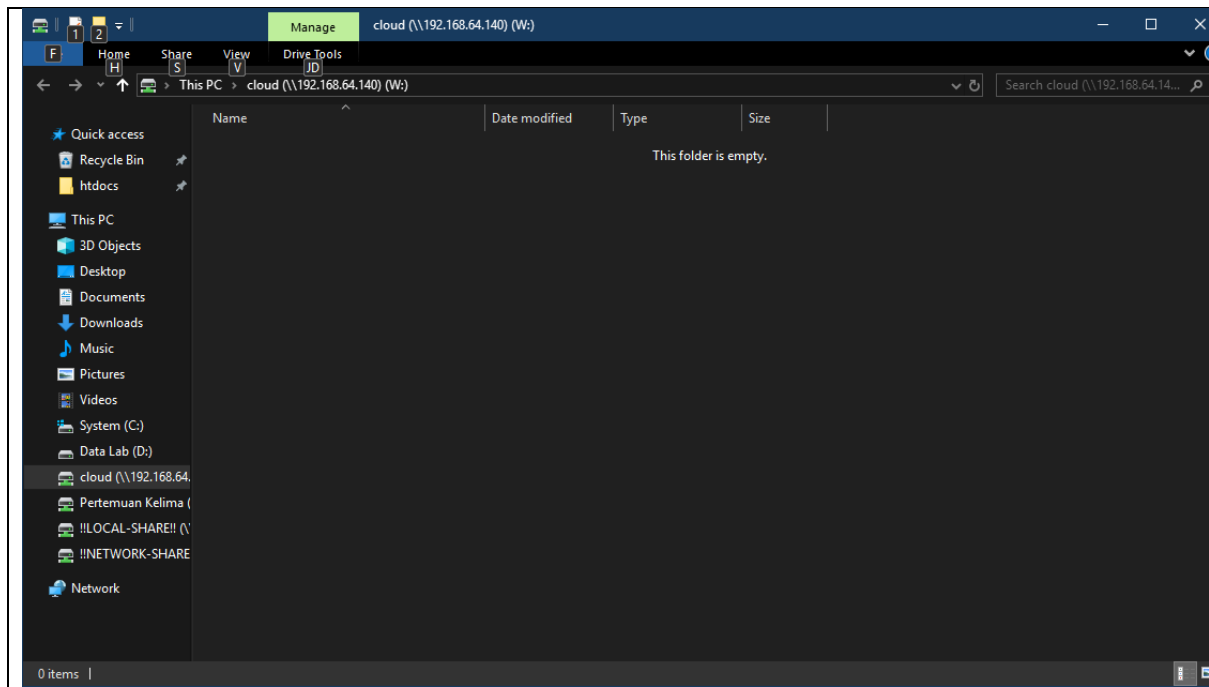




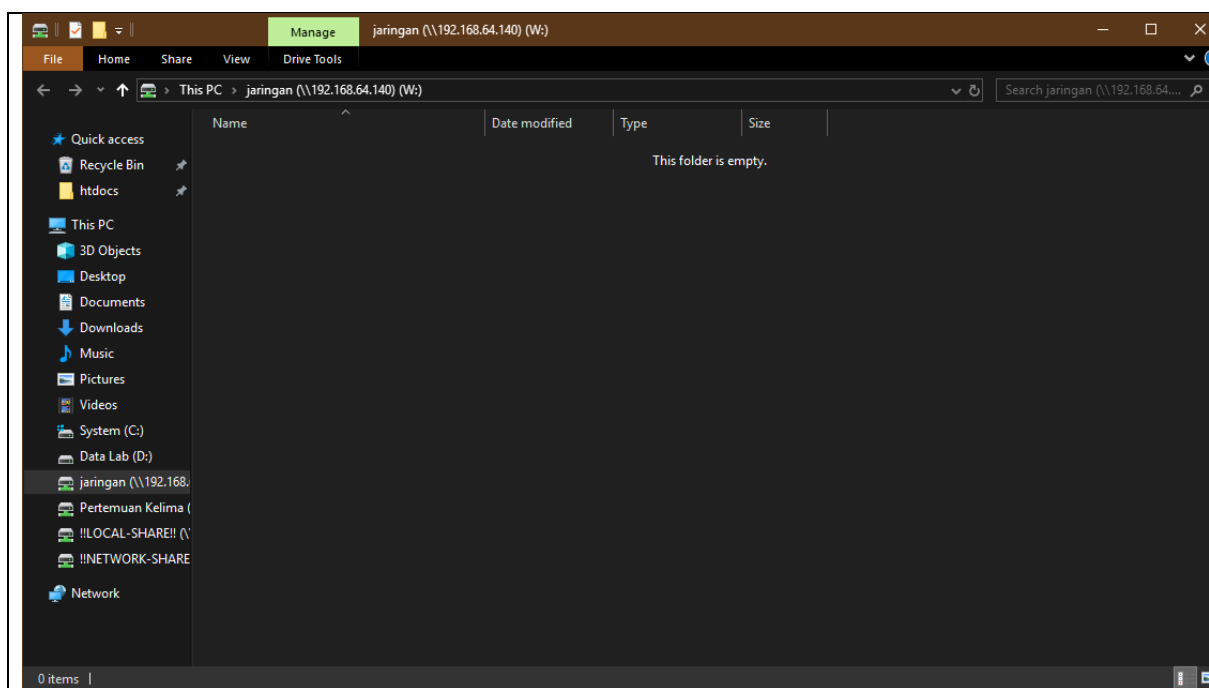
6. Tampilkan hasil dari pembuatan shares tambahan untuk 4 lab pada menu Sharing -> Windows (SMB) Shares



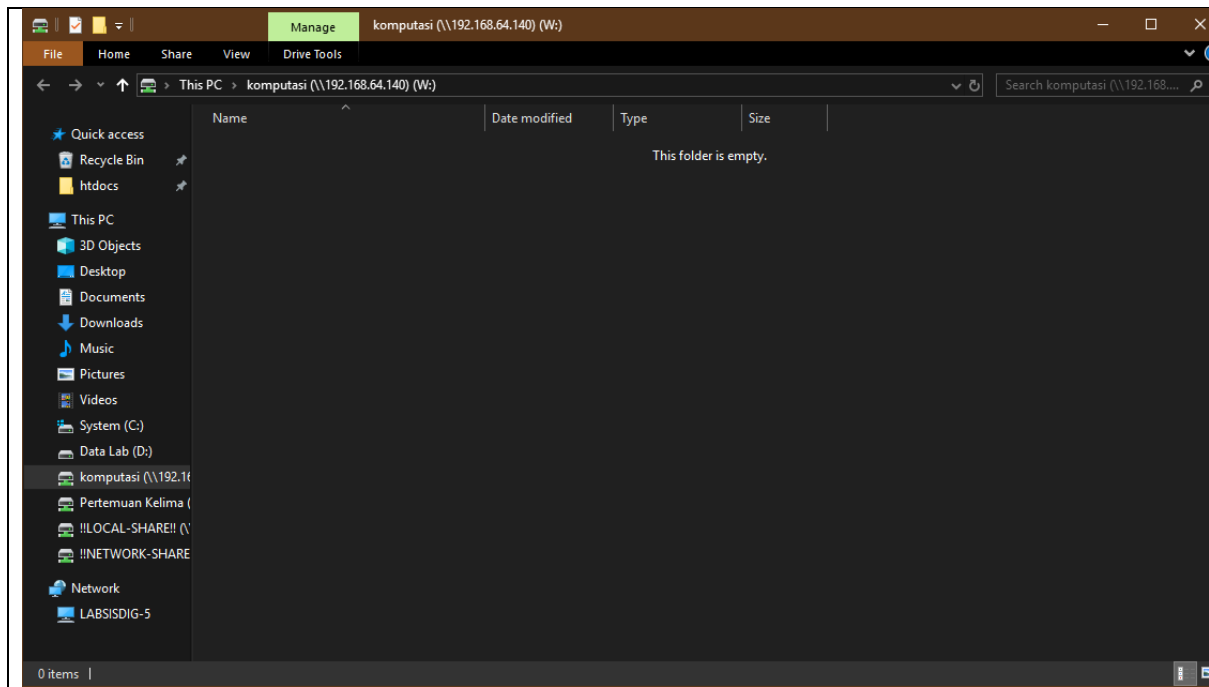
7. Tampilkan hasil akses shares pada Windows Explorer (hasil mapping) untuk Lab Cloud (yang pertama kali dibuat)



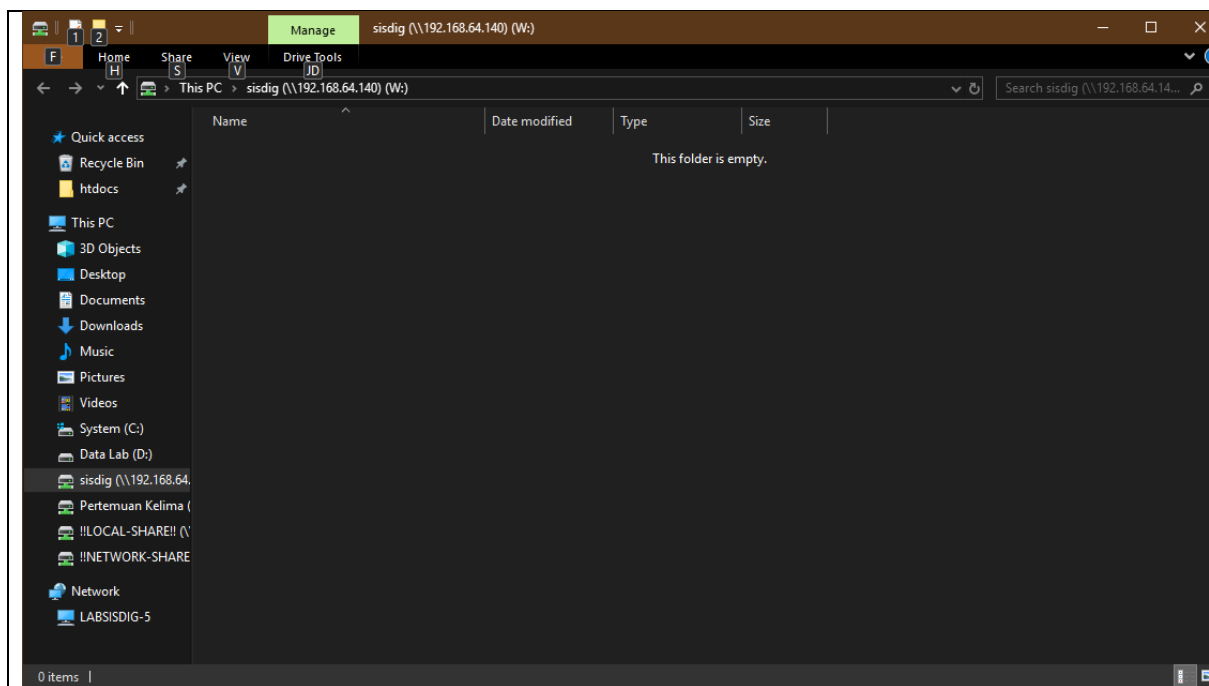
8. Tampilkan hasil akses shares untuk Lab Jaringan



9. Tampilkan hasil akses shares untuk Lab Komputasi



10. Tampilkan hasil akses shares untuk Lab Sisdig



DOKUMENTASI PERTEMUAN KELIMA (BILA ADA)