



LEMBAR KERJA PRAKTIKUM CLOUD COMPUTING

INSTALASI DAN KONFIGURASI LAYANAN FILE SHARING DENGAN FREENAS

IDENTITAS:

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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
```

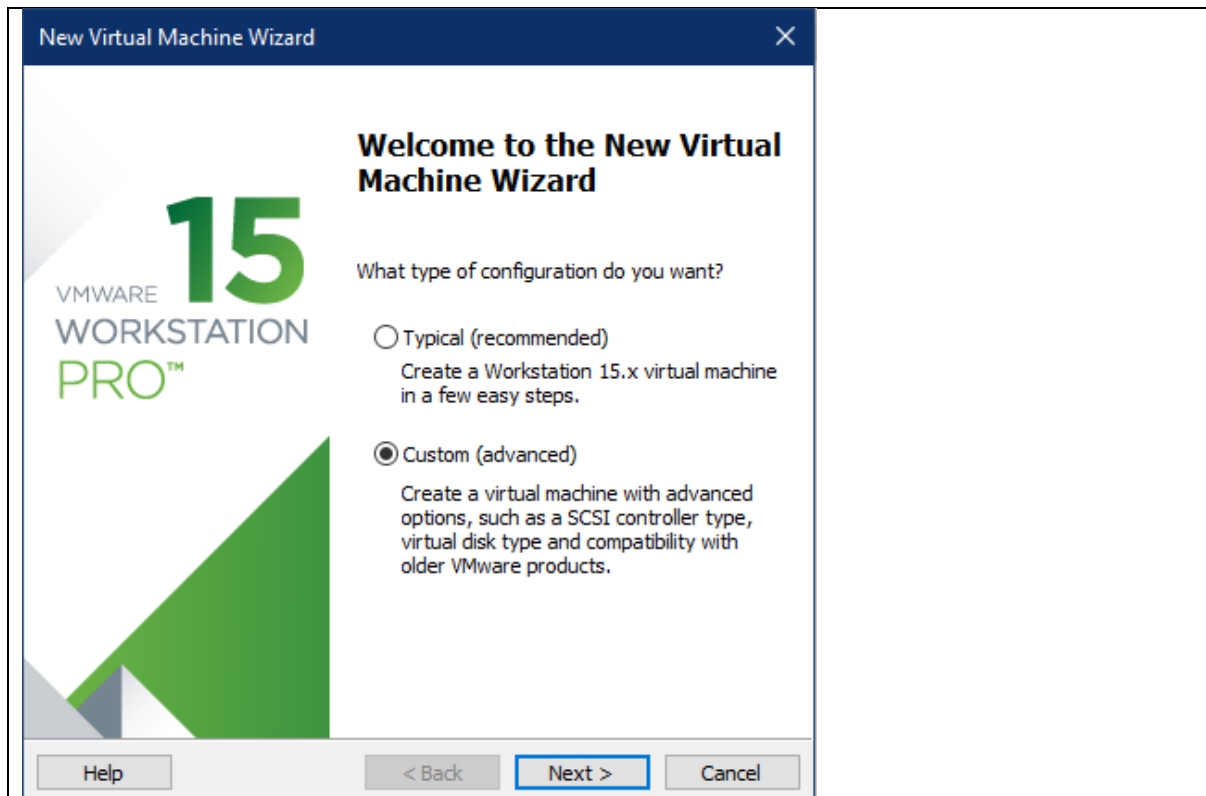
Perintah exit digunakan untuk keluar dari sesi akun aktif

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

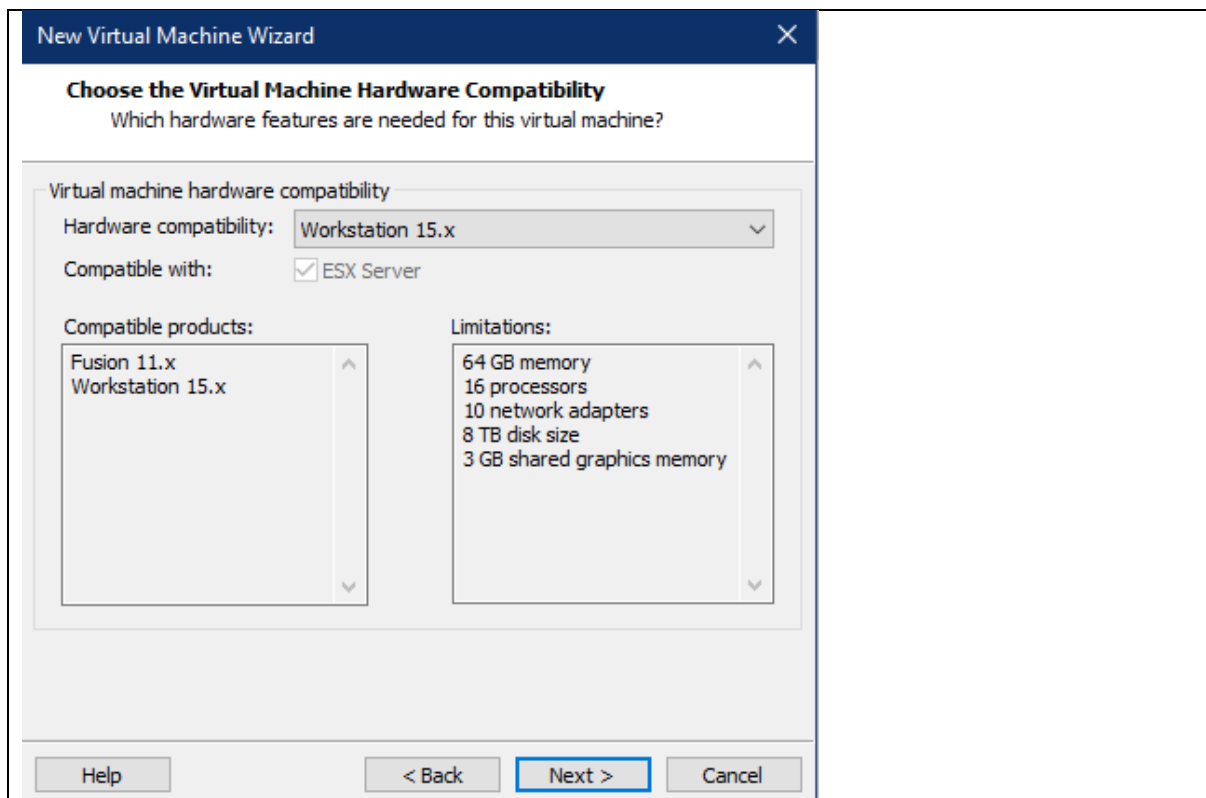


TUGAS BAGIAN PERTAMA – PEMBUATAN VM:

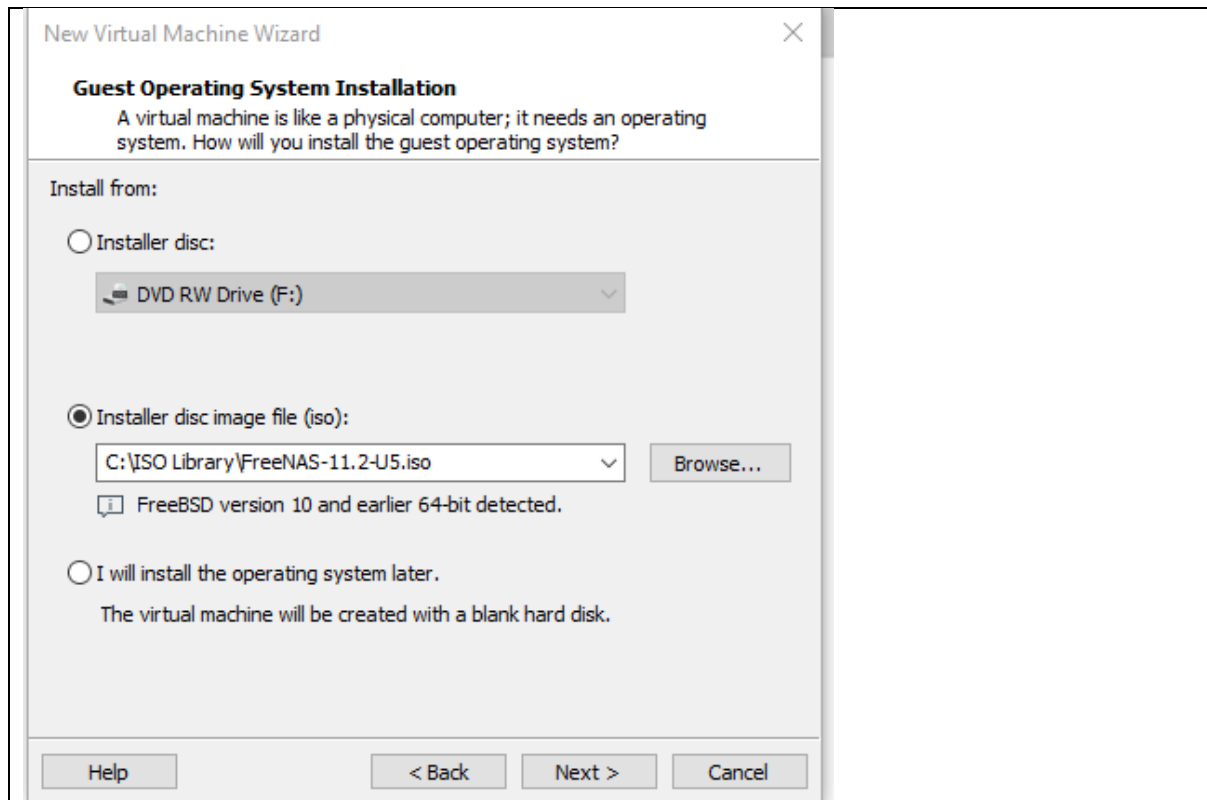
1. Gunakan opsi konfigurasi Custom



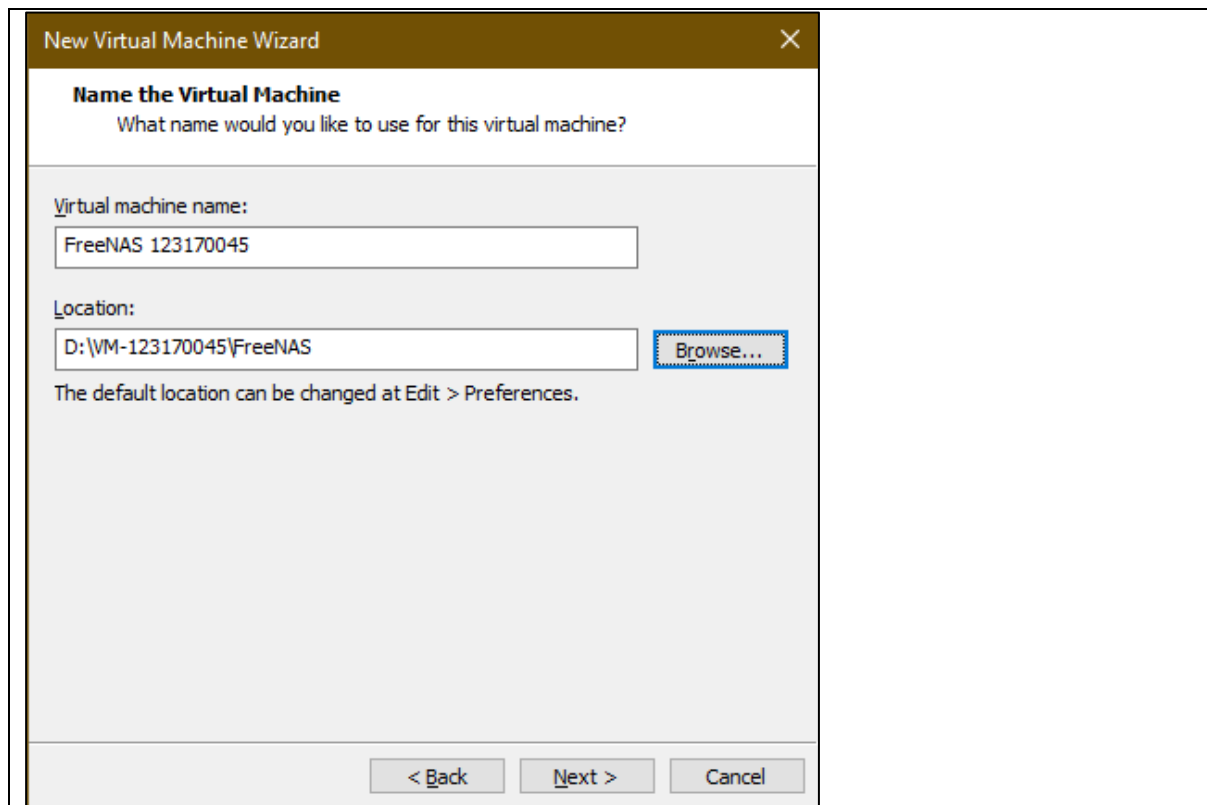
2. Gunakan compatibility Workstation 15.X



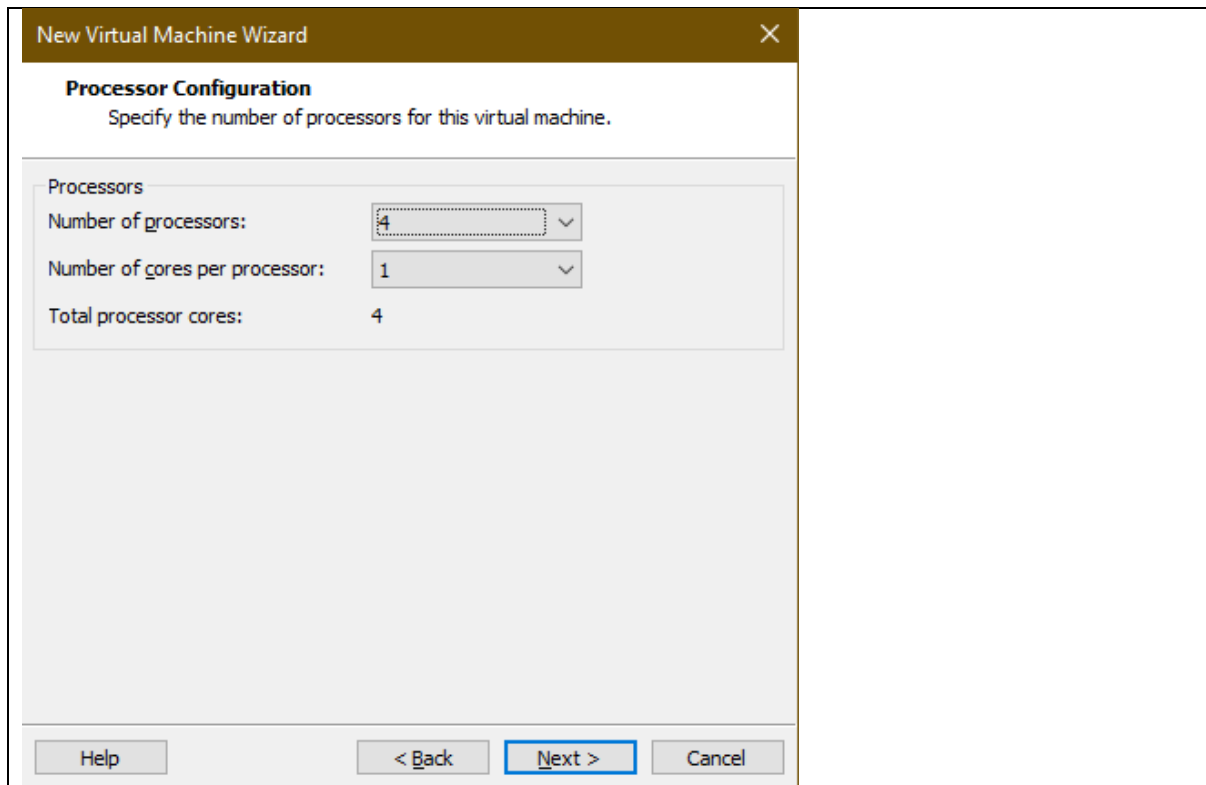
3. Gunakan ISO FreeNAS-11.2-U5 di folder ISO Library



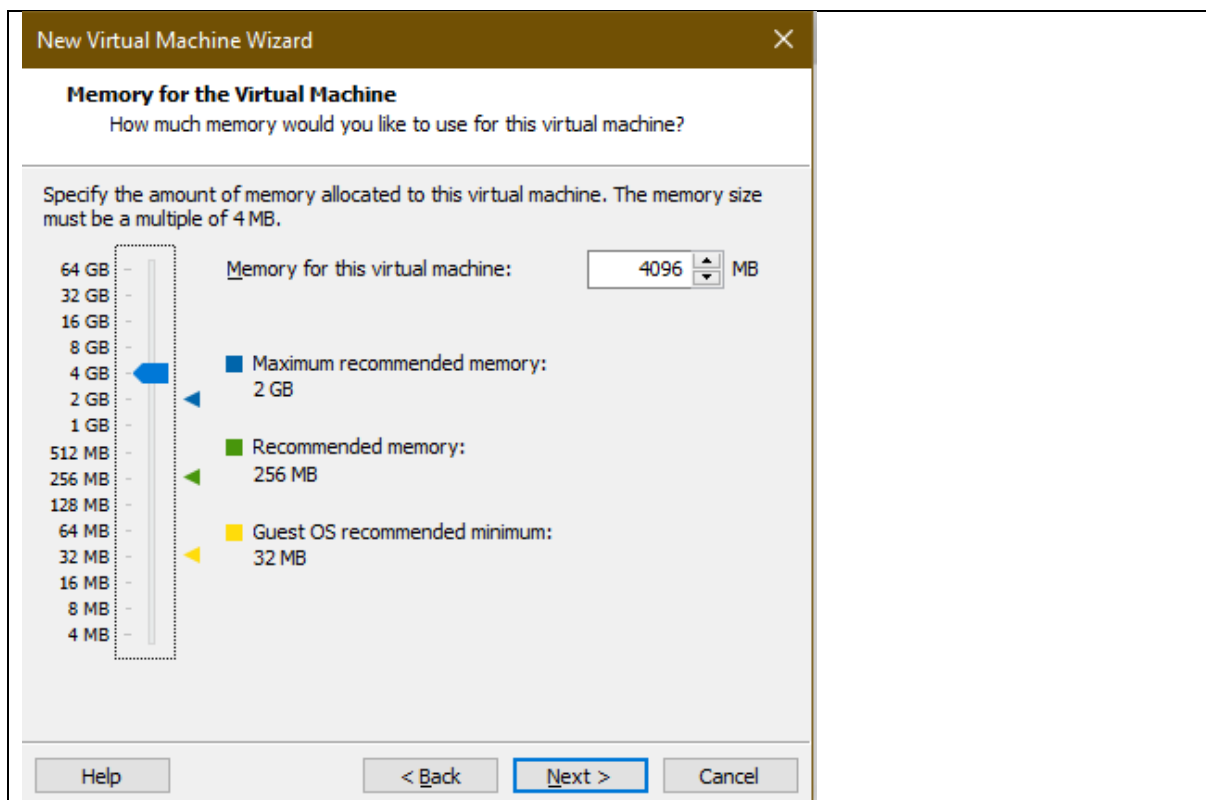
4. Format nama VM: **FreeNAS NIM** dan buat folder **FreeNAS** di dalam **VM-NIM**



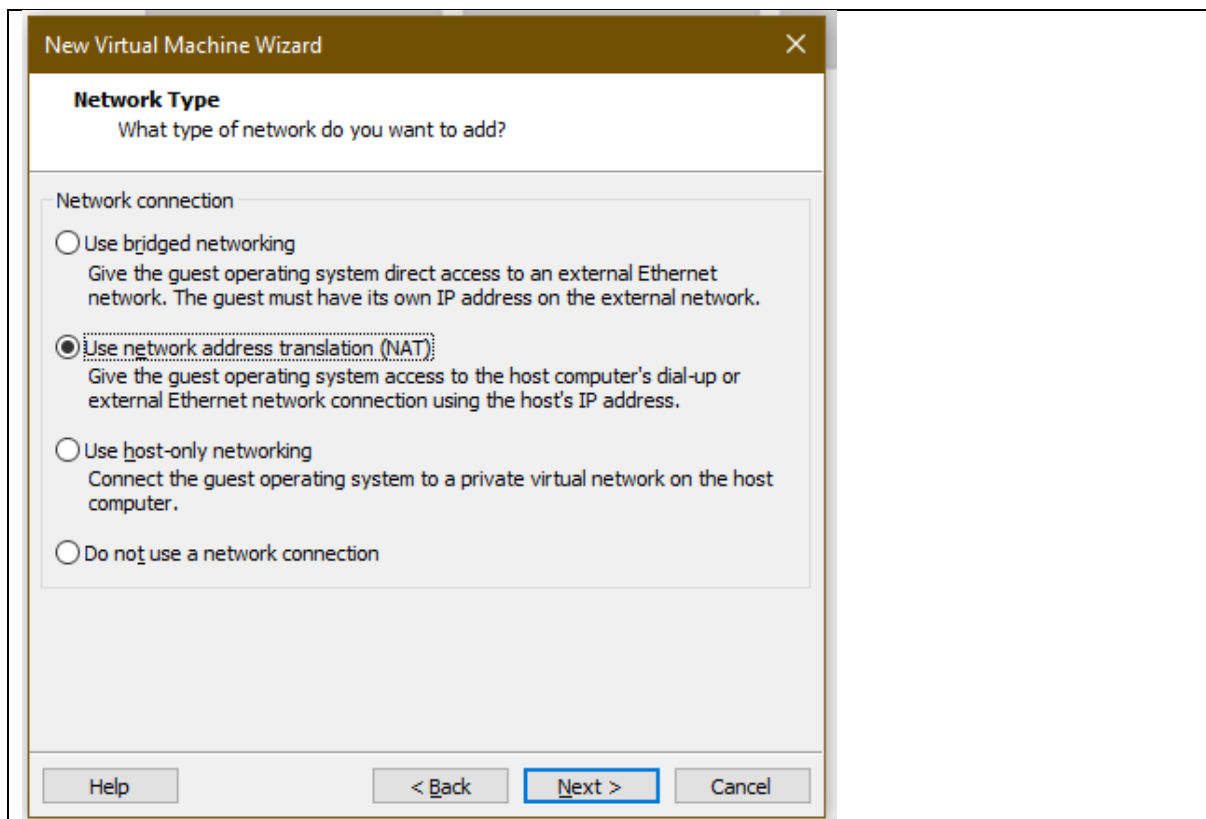
5. Gunakan 4 processor dan 1 core



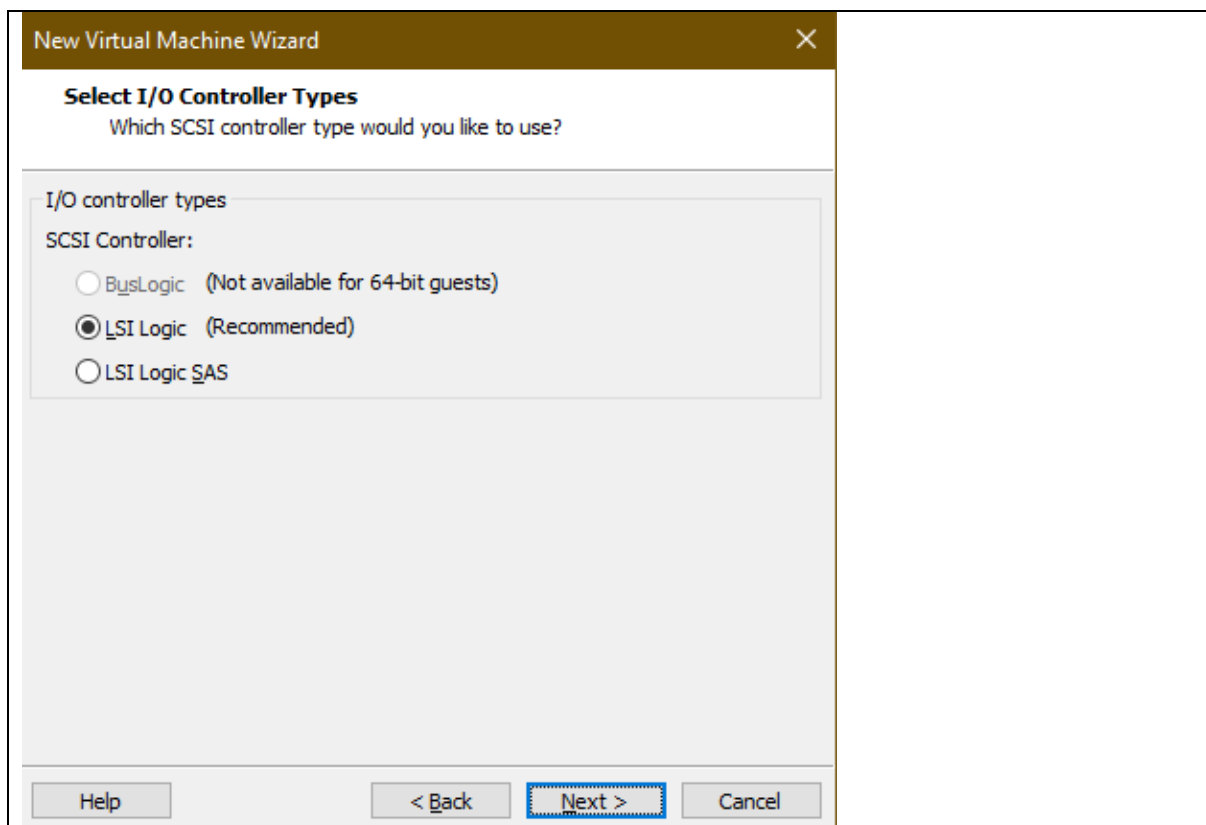
6. Gunakan RAM sebesar 4 GB



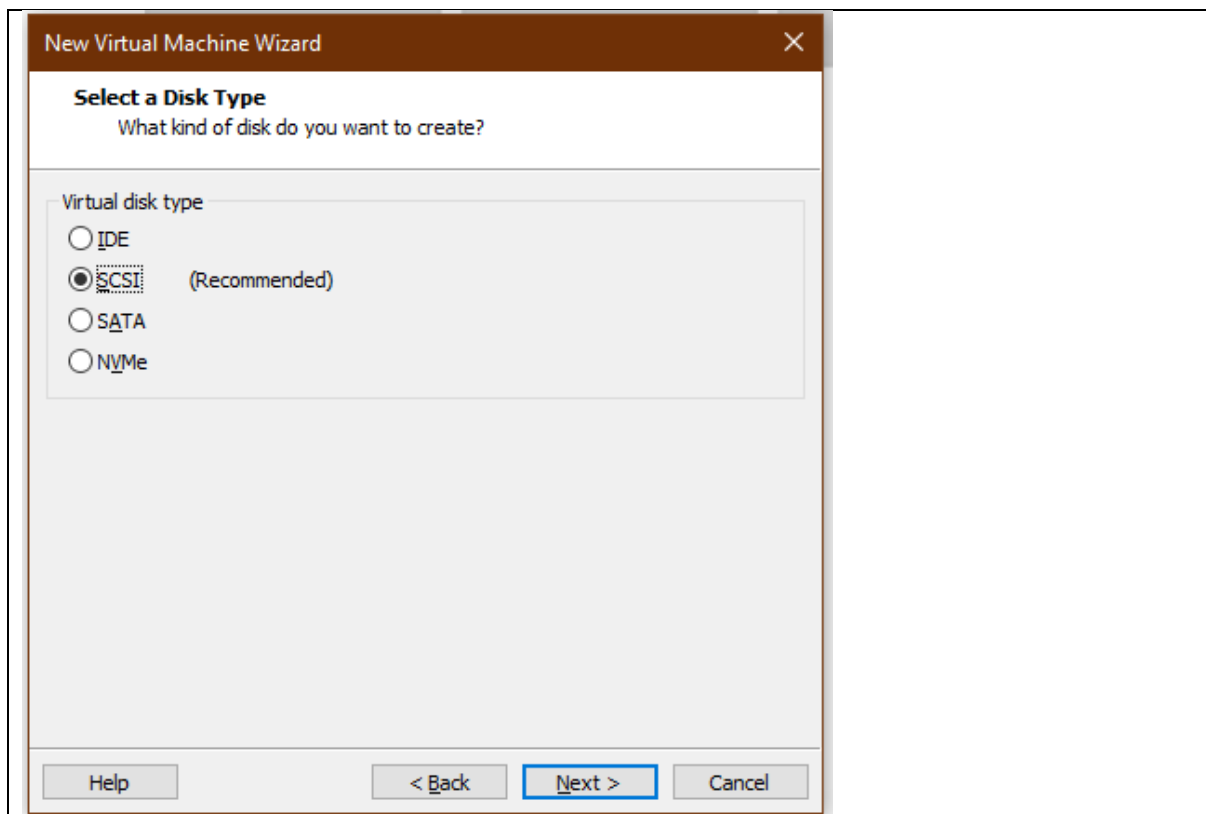
7. Gunakan mode jaringan NAT



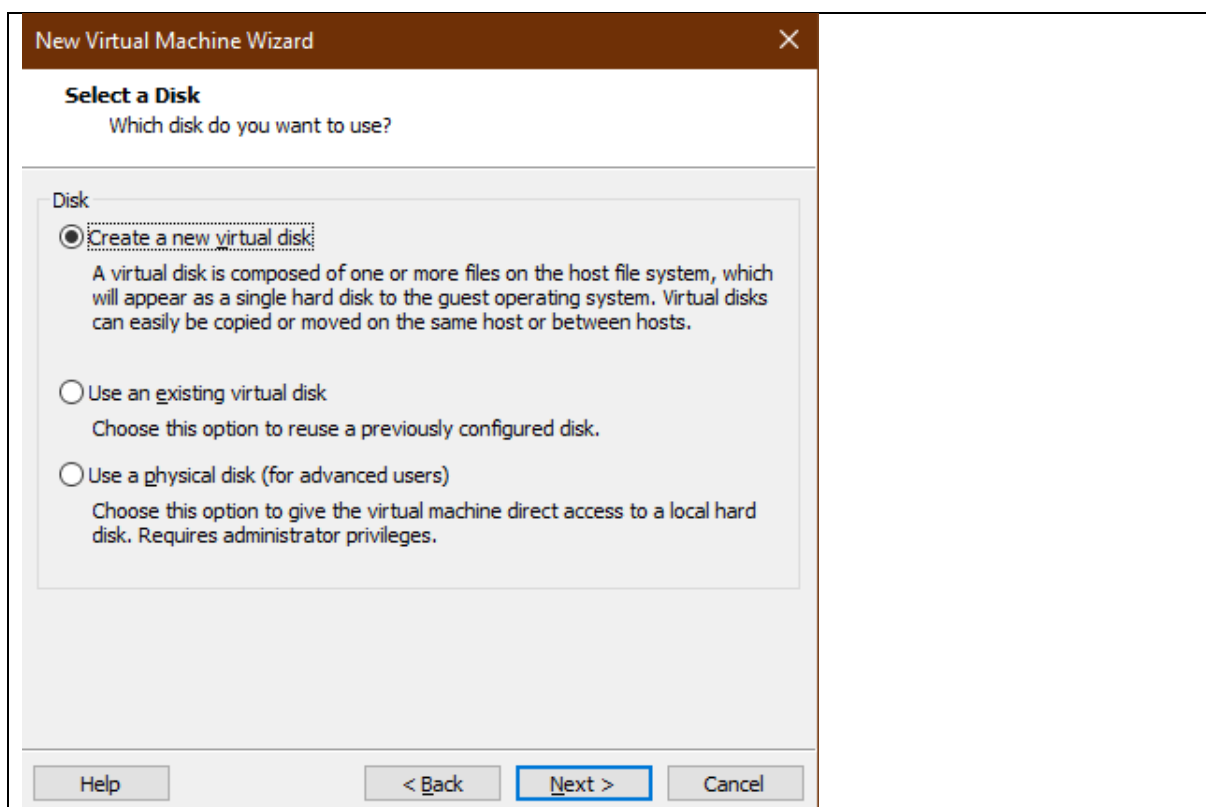
8. Gunakan pengaturan default I/O Controller



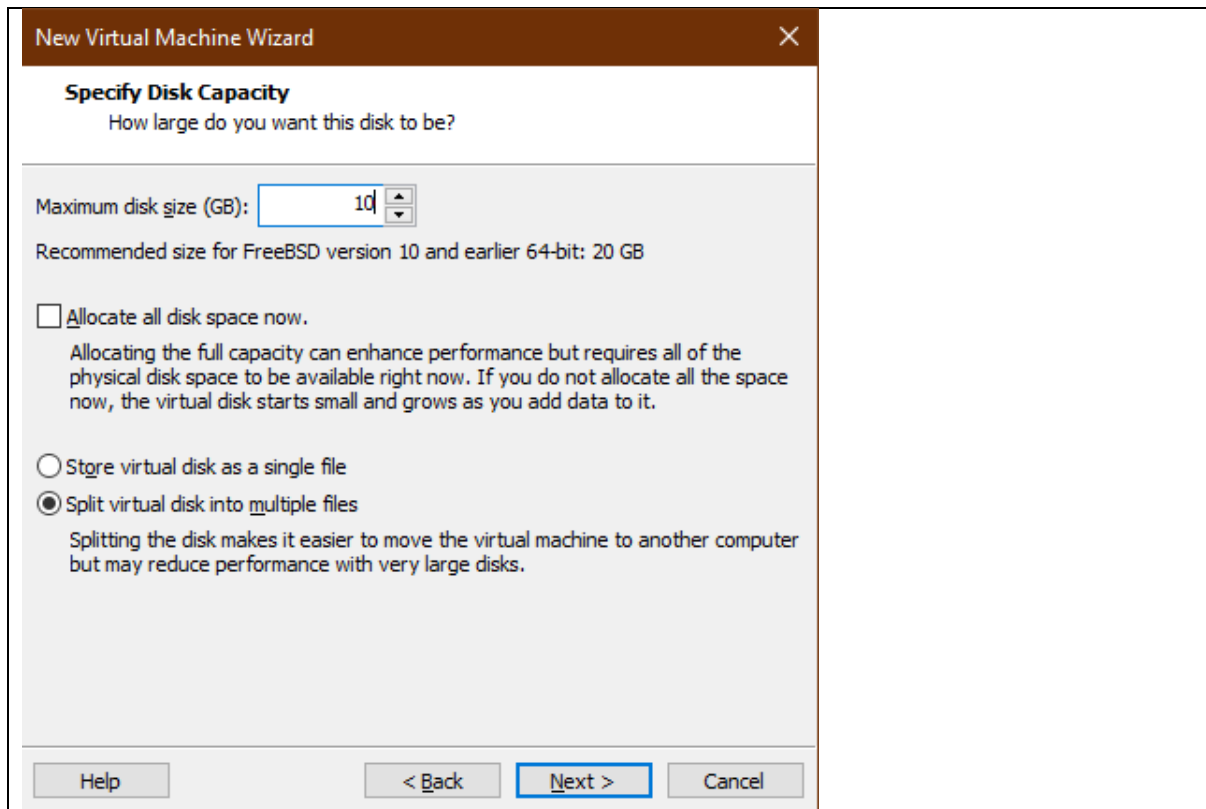
9. Gunakan pengaturan default Virtual Disk Type



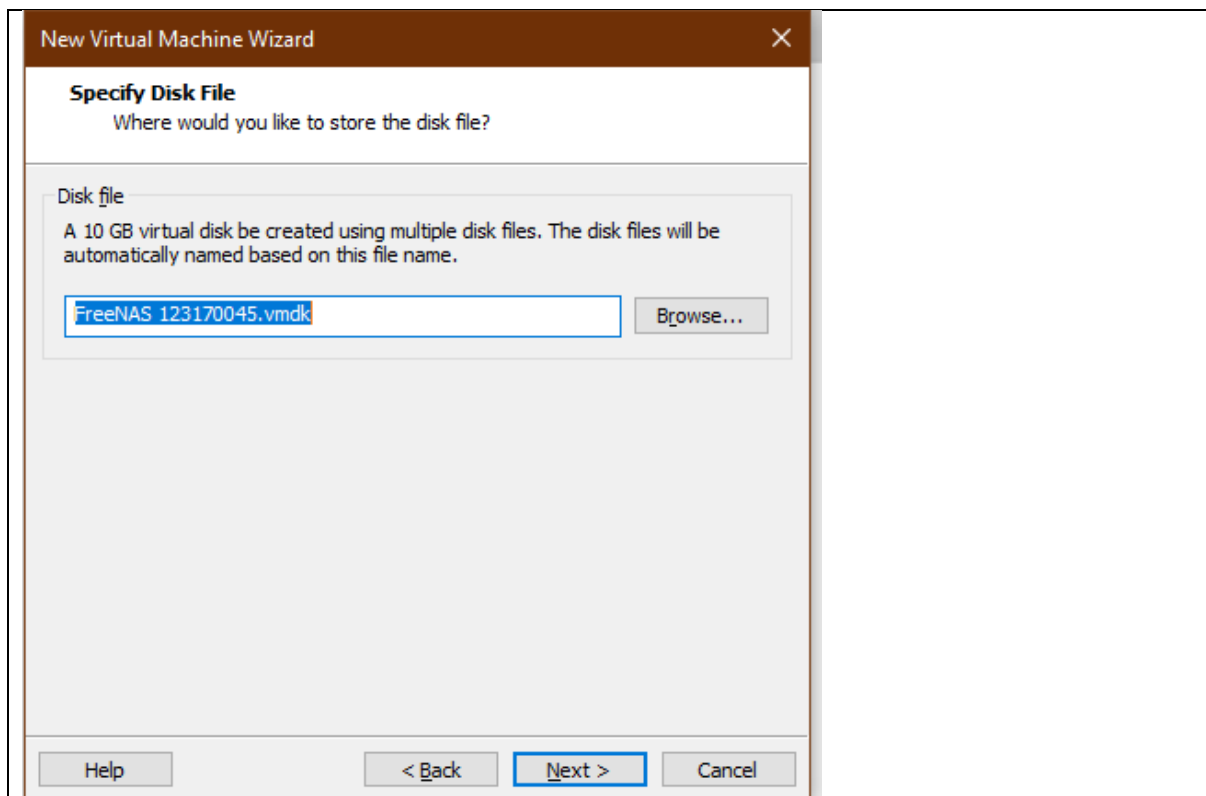
10. Pilih opsi buat virtual disk baru



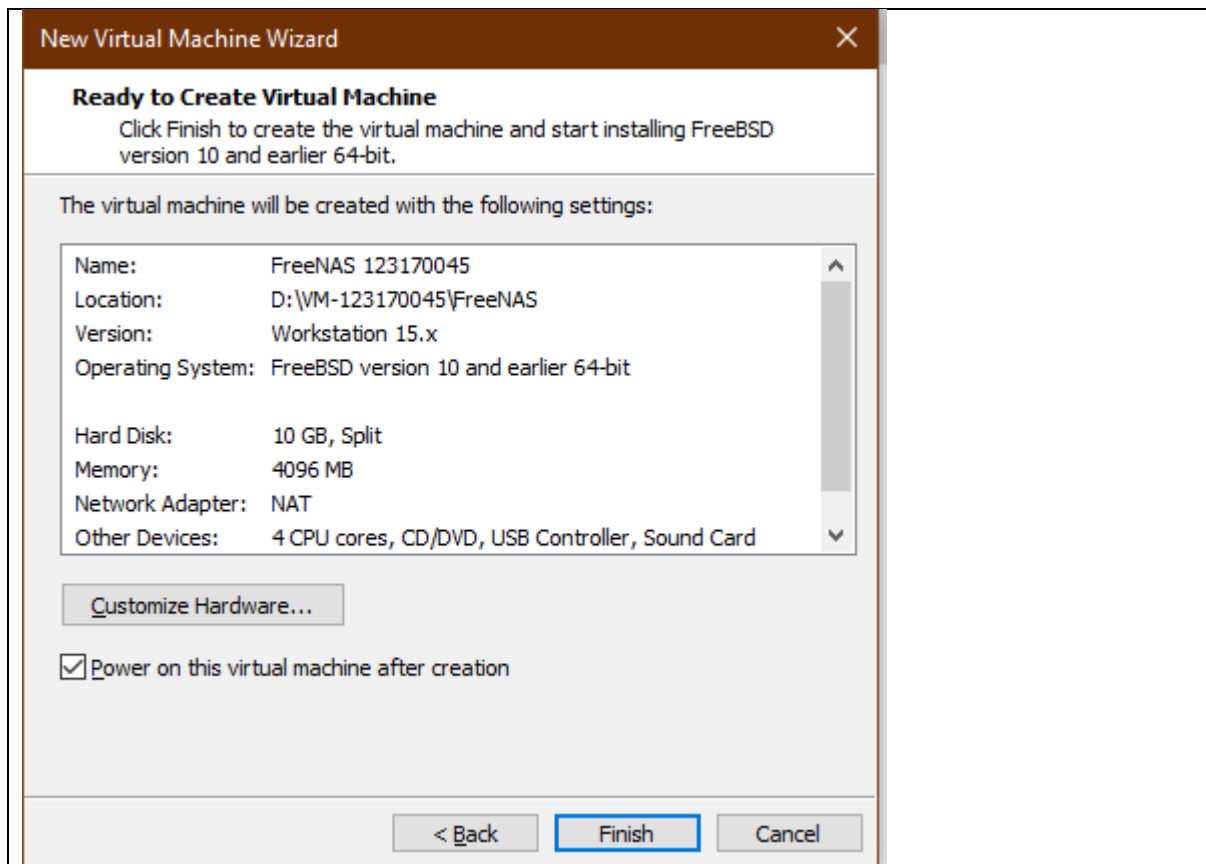
11. Buat disk untuk sistem sebesar 10 GB dengan mode Split dan hilangkan checklist allocate disk



12. Gunakan pengaturan default untuk nama disk

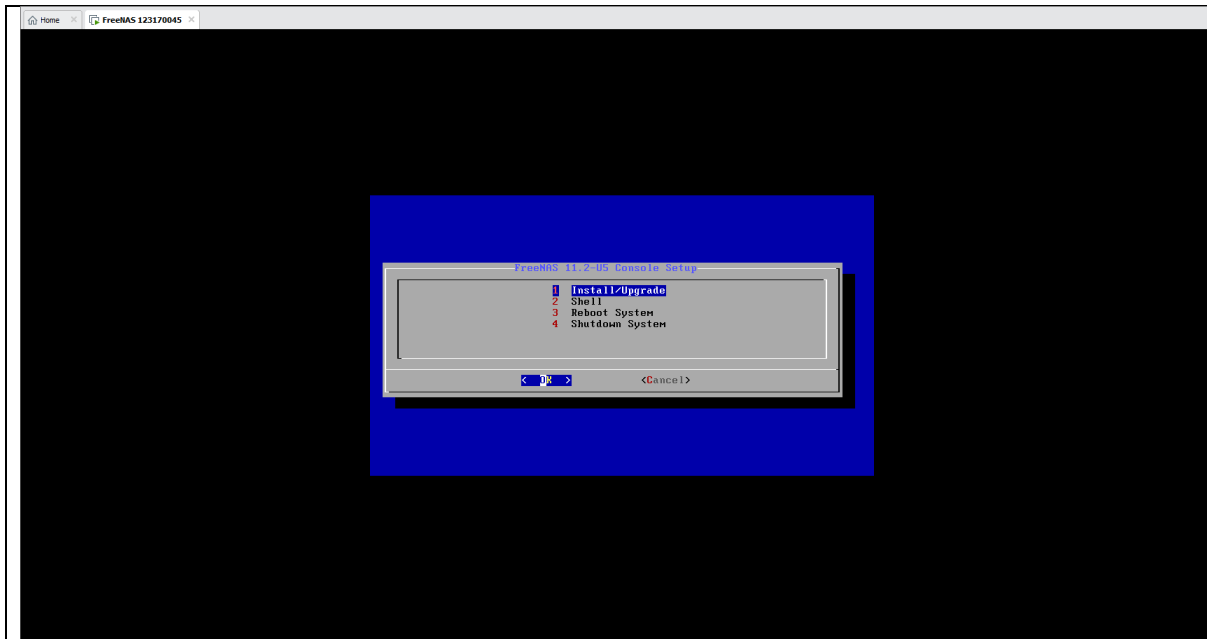


13. Tampilkan tangkapan layar dari ringkasan konfigurasi Virtual Machine (tahap akhir Wizard) lalu nyalakan VM

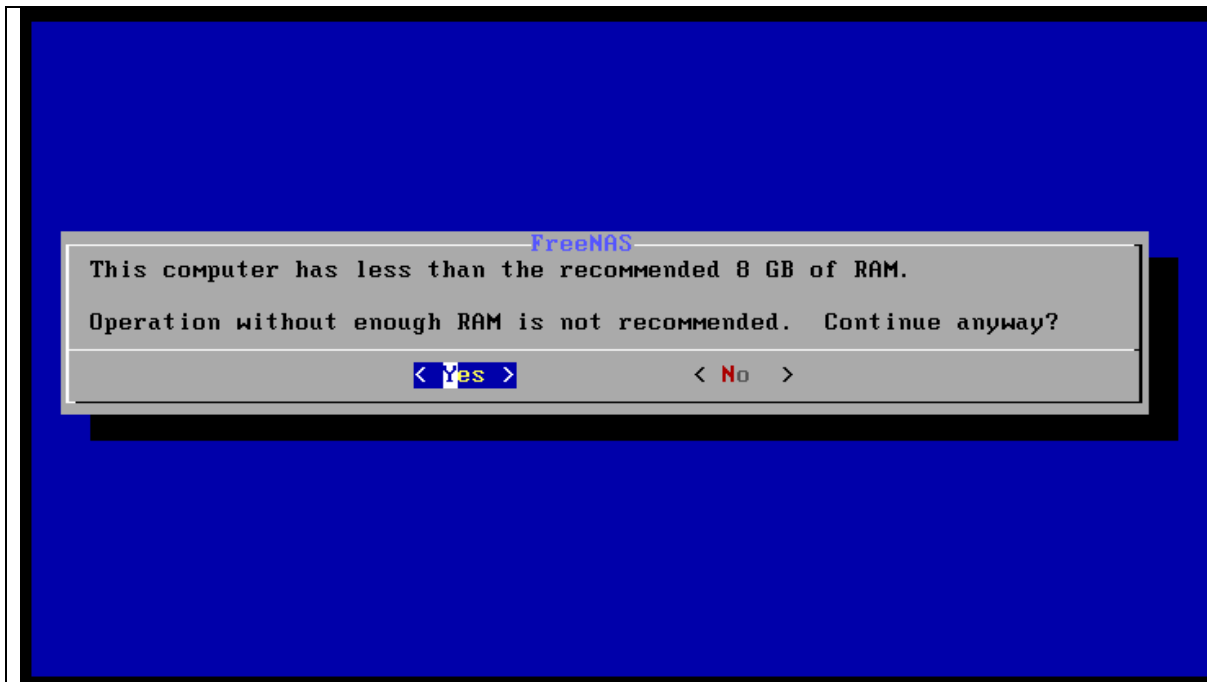


TUGAS BAGIAN KEDUA – INSTALASI FREENAS:

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



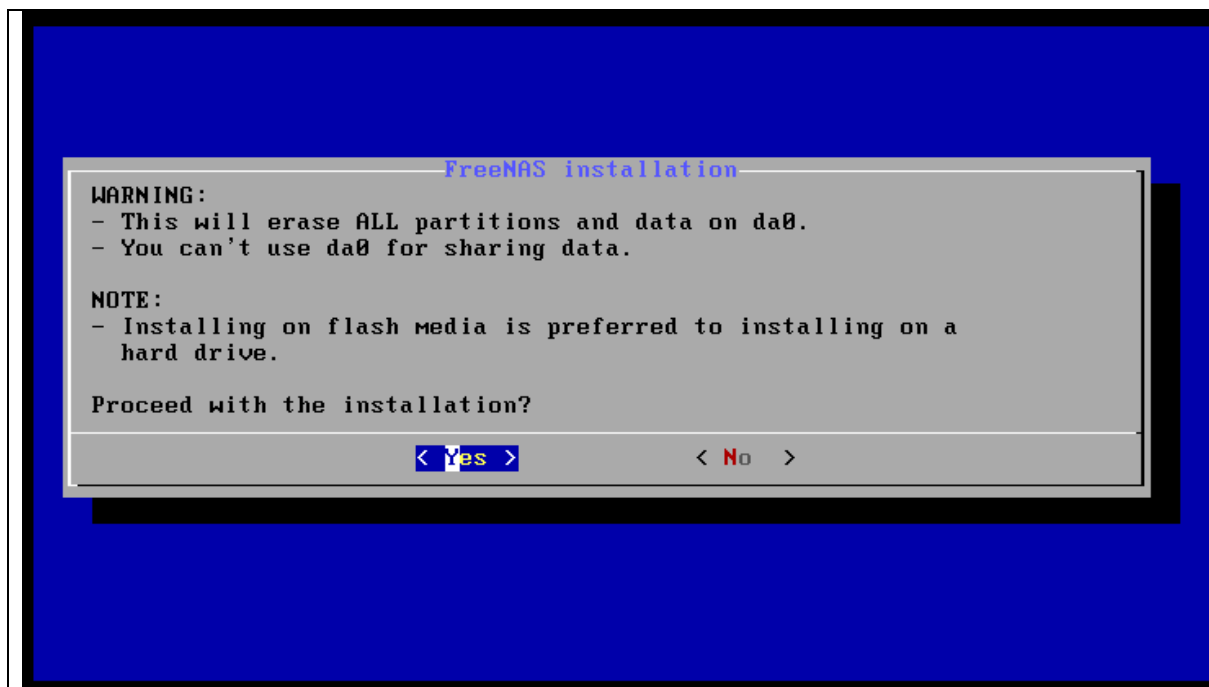
2. Tampilan warning RAM kurang dari 8GB, pilih Yes



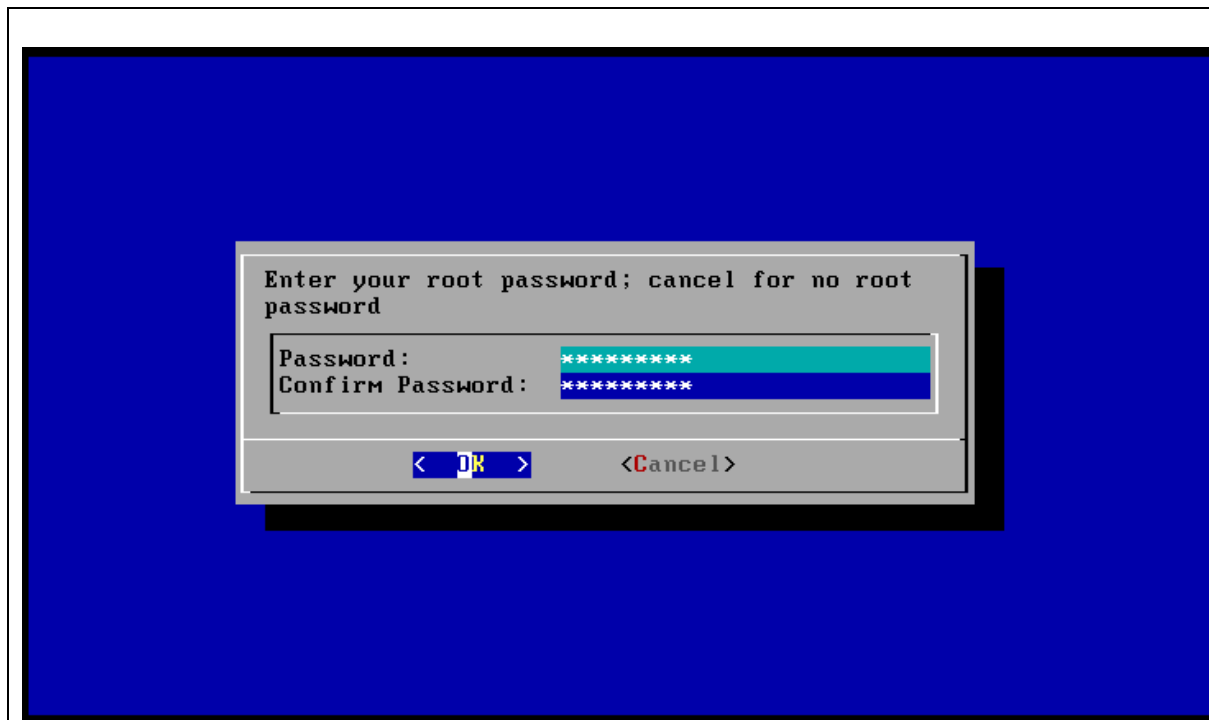
3. Tampilan pemilihan destination media untuk dipasang FreeNAS, pilih da0



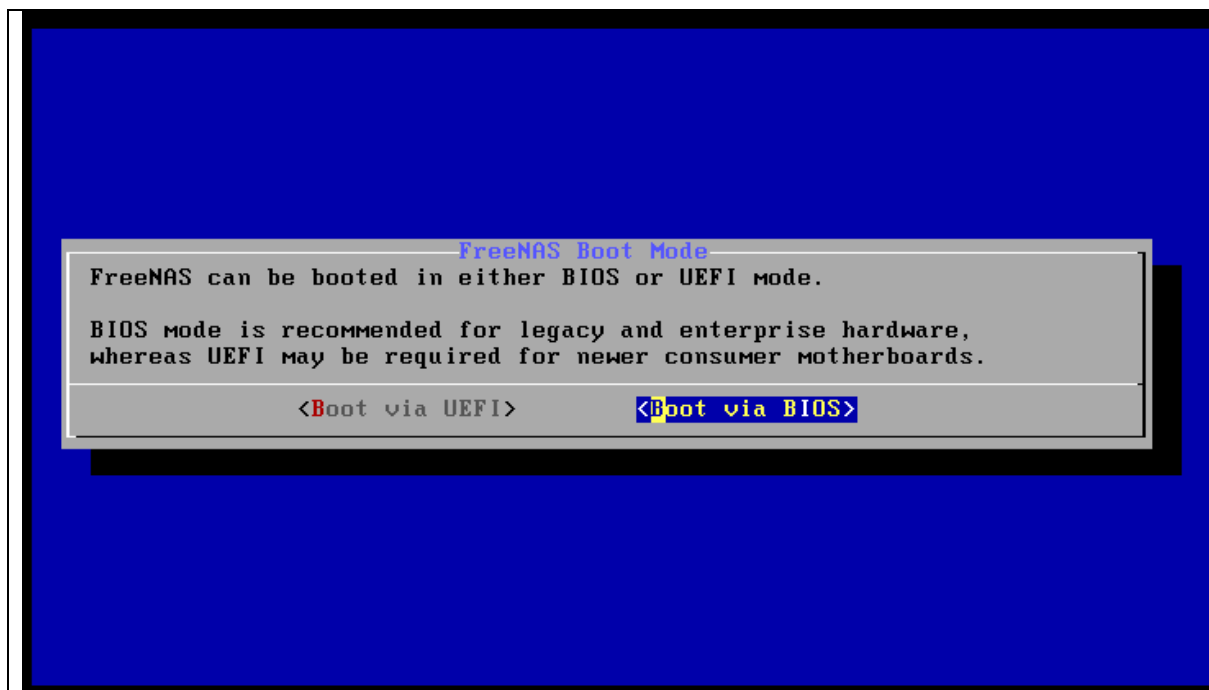
4. Tampilan konfirmasi penghapusan/format media yang terpilih, pilih Yes



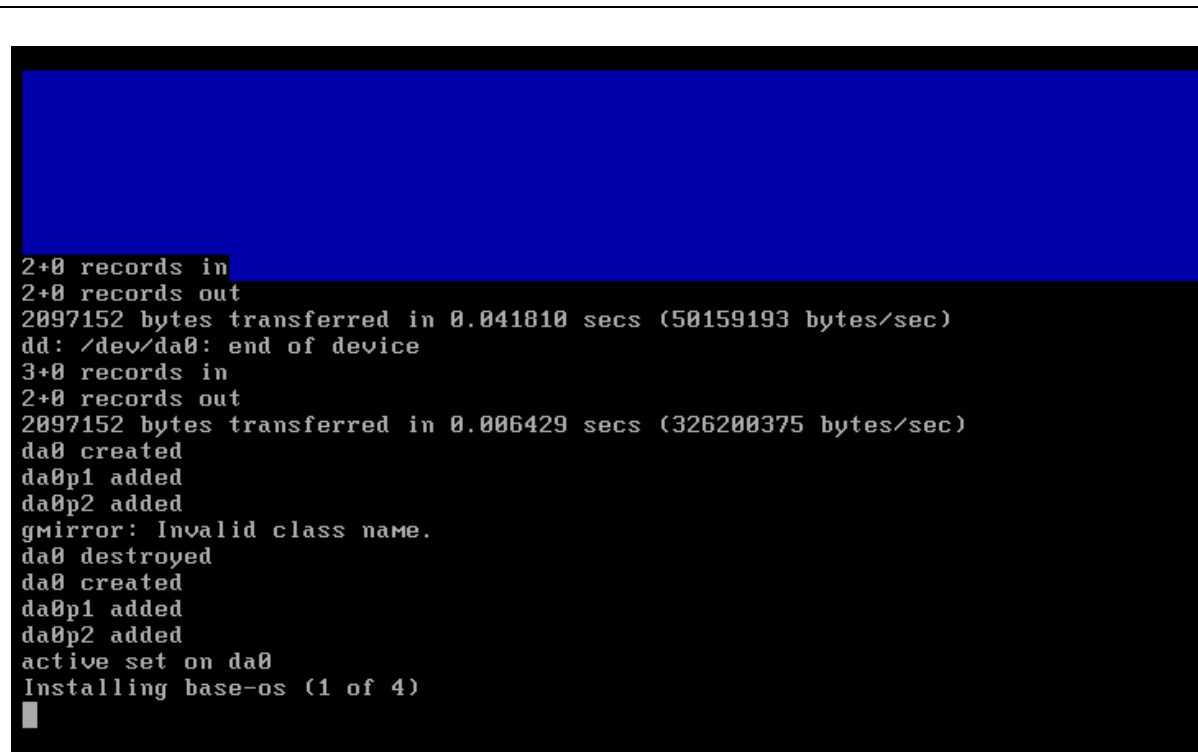
5. Tampilan pengaturan kata sandi, gunakan NIM atau bebas



6. Tampilan mode boot dari FreeNAS, pilih BIOS

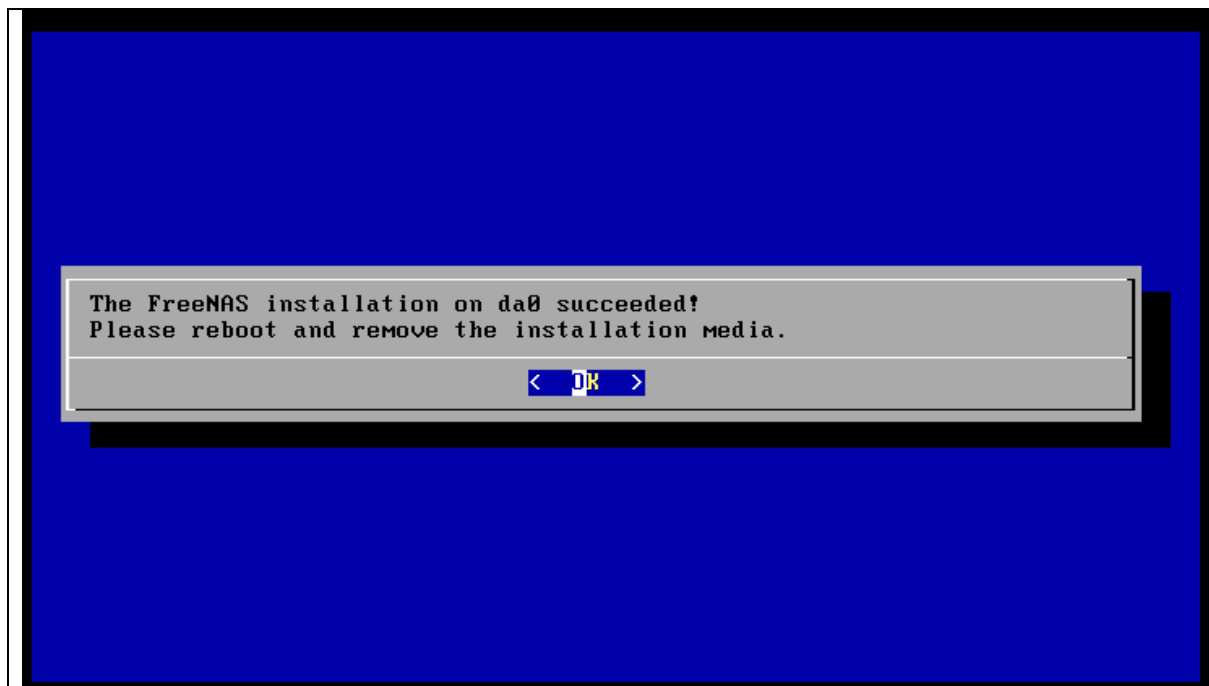


7. Tampilan proses instalasi FreeNAS

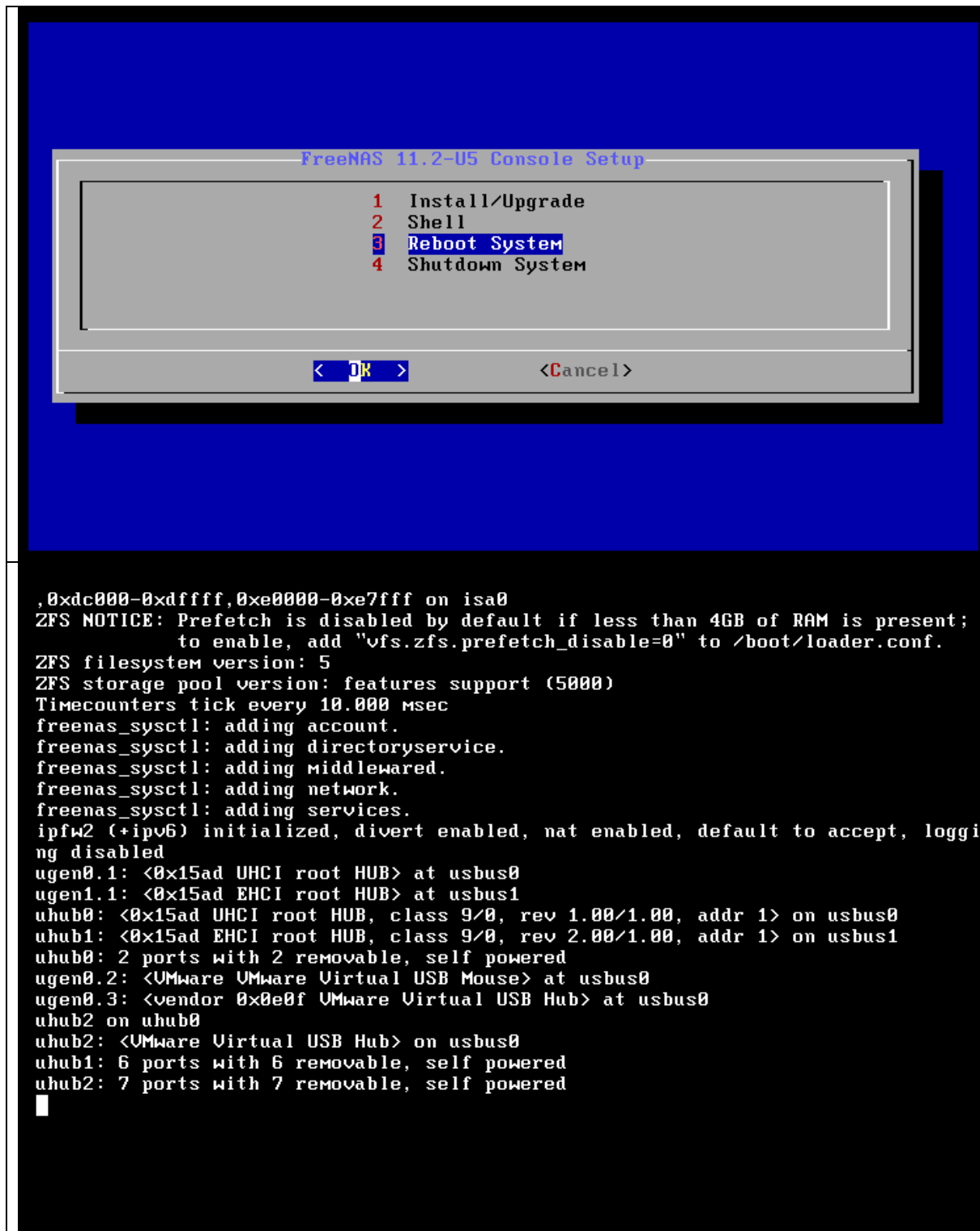


```
2+0 records in
2+0 records out
2097152 bytes transferred in 0.041810 secs (50159193 bytes/sec)
dd: /dev/da0: end of device
3+0 records in
2+0 records out
2097152 bytes transferred in 0.006429 secs (326200375 bytes/sec)
da0 created
da0p1 added
da0p2 added
gmirror: Invalid class name.
da0 destroyed
da0 created
da0p1 added
da0p2 added
active set on da0
Installing base-os (1 of 4)
█
```

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



9. Tampilan proses booting menuju FreeNAS OS



10. Tampilan hasil akhir booting yang menunjukkan Console Setup

```
Wed Mar  4 22:48:12 PST 2020
FreeBSD/amd64 (freenas.local) (ttyv0)

Console setup
-----

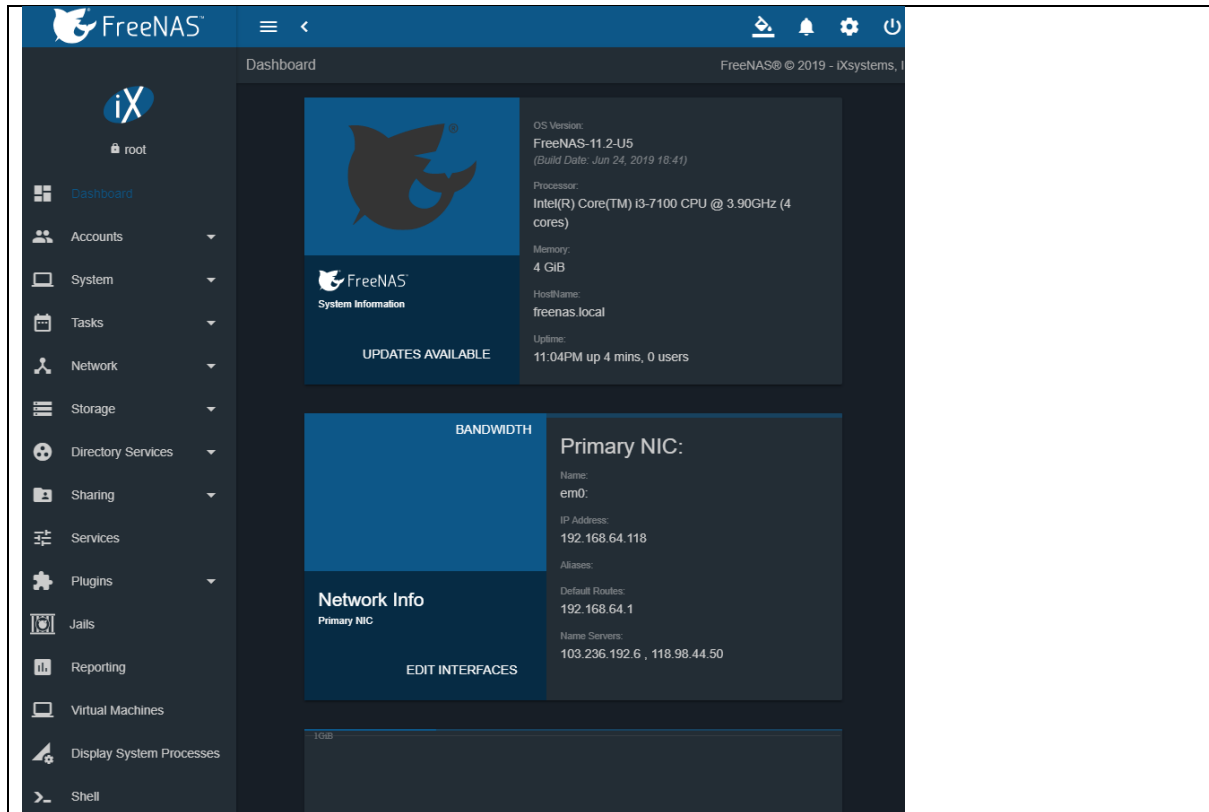
1) Configure Network Interfaces
2) Configure Link Aggregation
3) Configure VLAN Interface
4) Configure Default Route
5) Configure Static Routes
6) Configure DNS
7) Reset Root Password
8) Reset Configuration to Defaults
9) Shell
10) Reboot
11) Shut Down

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

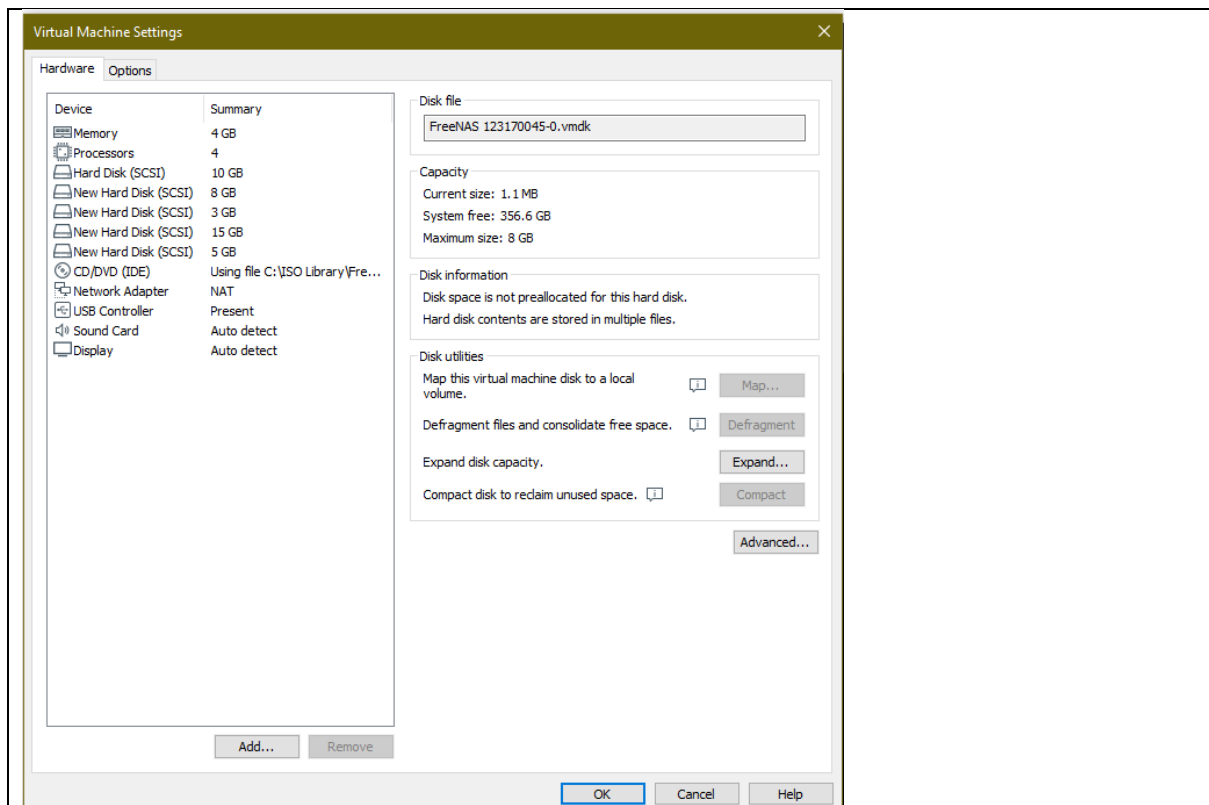
Enter an option from 1-11: █
```

TUGAS BAGIAN KETIGA – KONFIGURASI FREENAS:

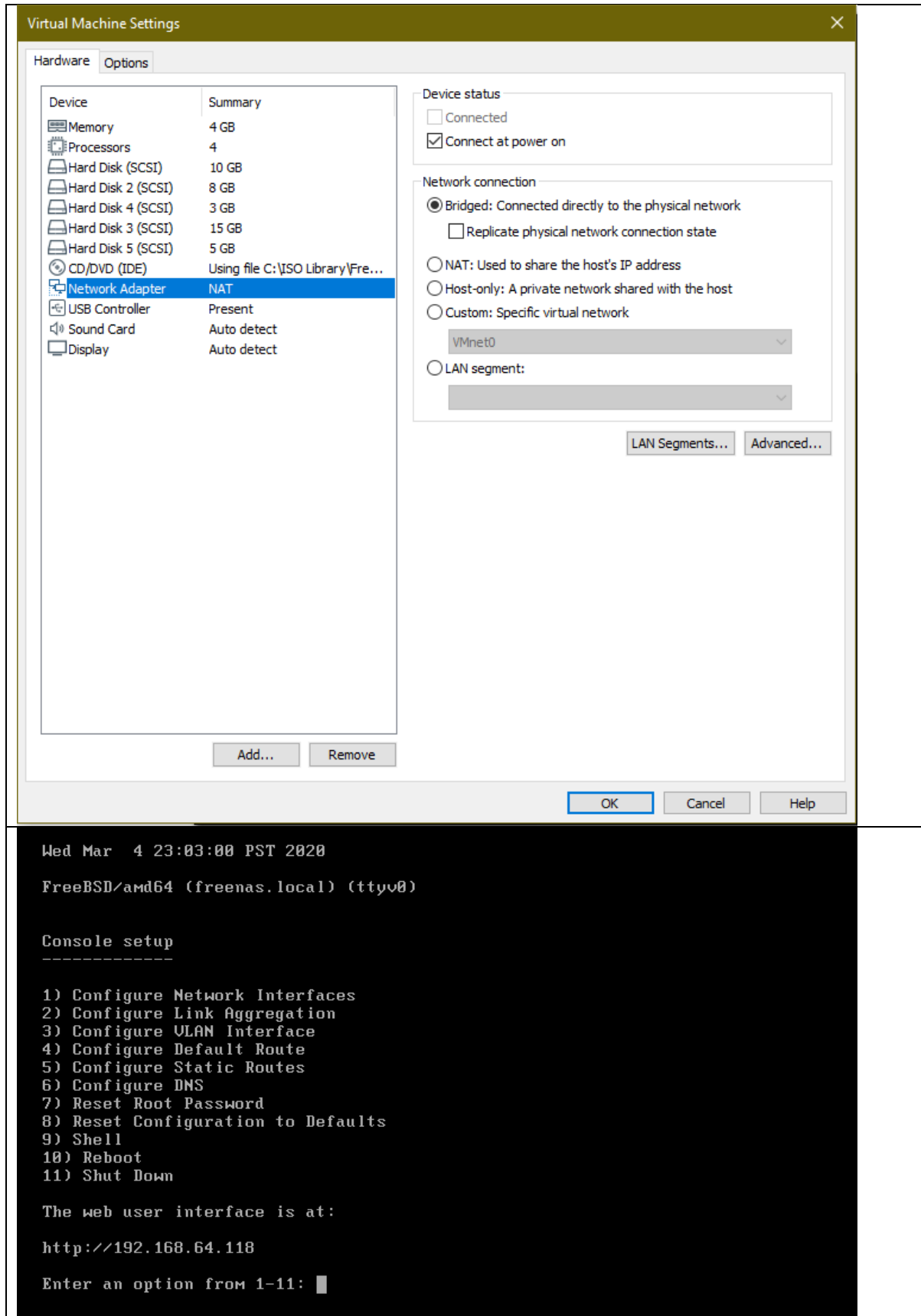
1. Tampilan dashboard setelah login FreeNAS



2. Tampilan konfigurasi VM pada Eksperimen #1



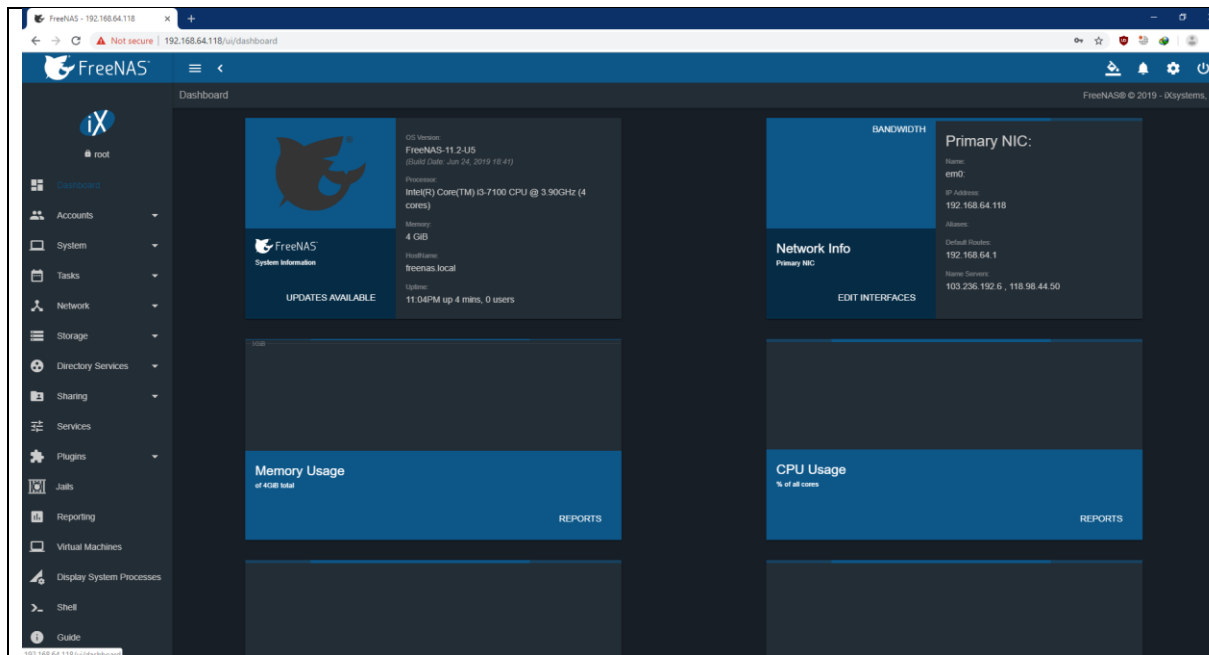
3. Tampilan IP pada dashboard Console Setup pada Eksperimen #2



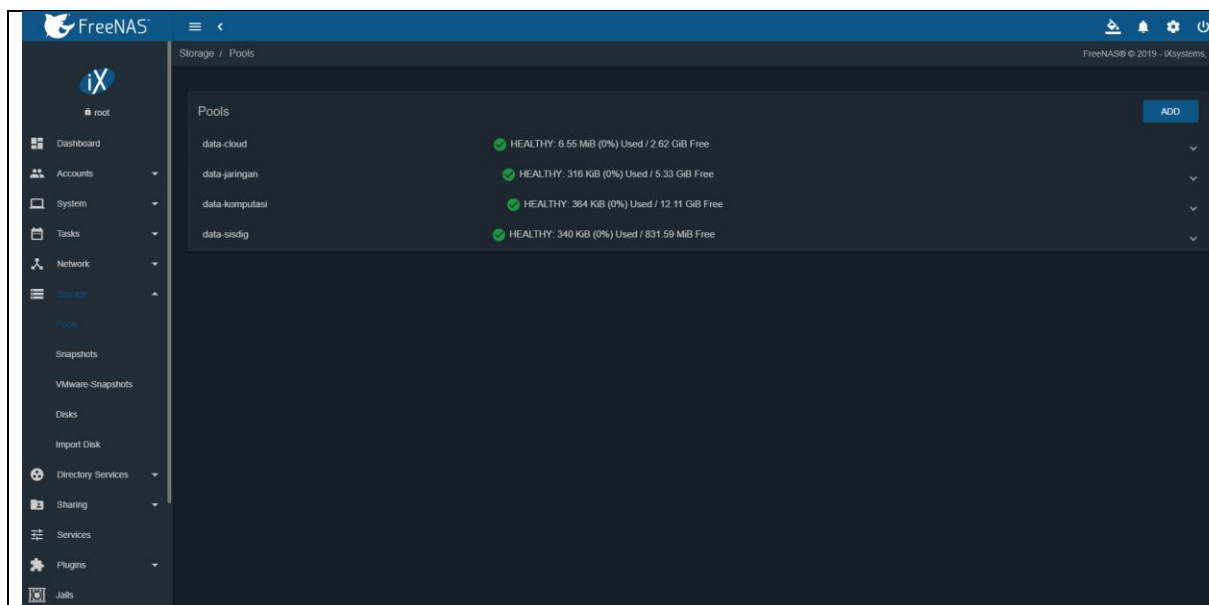
The image shows two screenshots related to a virtual machine setup.

The top screenshot is the "Virtual Machine Settings" window, specifically the "Options" tab. The "Network Adapter" is selected in the left pane, showing a summary of 4 GB memory, 4 processors, and 10 GB hard disk. The "Device status" section shows "Connect at power on" is checked. The "Network connection" section shows "Bridged: Connected directly to the physical network" is selected, with "Replicate physical network connection state" unchecked. The "NAT" option is also visible, along with "Host-only" and "Custom". The "VMnet0" dropdown is visible. The "LAN segment" dropdown is also visible. The "LAN Segments..." and "Advanced..." buttons are at the bottom right.

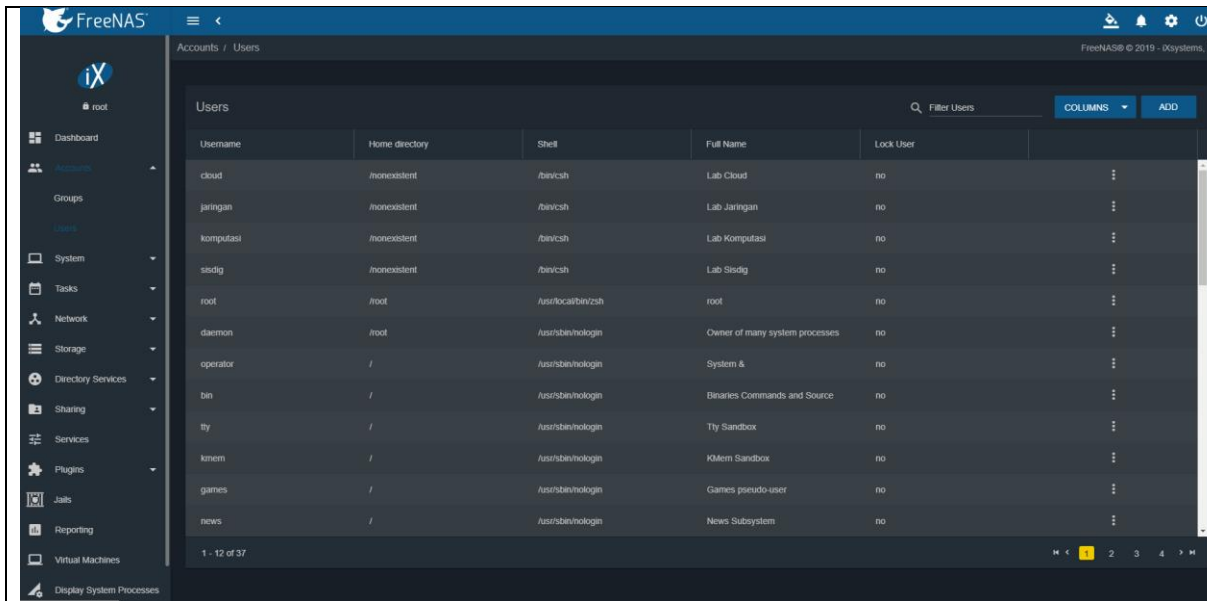
The bottom screenshot is the "Console setup" screen of a FreeBSD virtual machine. It shows the date and time: "Wed Mar 4 23:03:00 PST 2020". The prompt is "FreeBSD/amd64 (freenas.local) (ttyv0)". The "Console setup" menu is displayed, listing 11 options: 1) Configure Network Interfaces, 2) Configure 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, and 11) Shut Down. The prompt "The web user interface is at:" is followed by the URL "http://192.168.64.118". The prompt "Enter an option from 1-11:" is followed by a cursor.



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



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

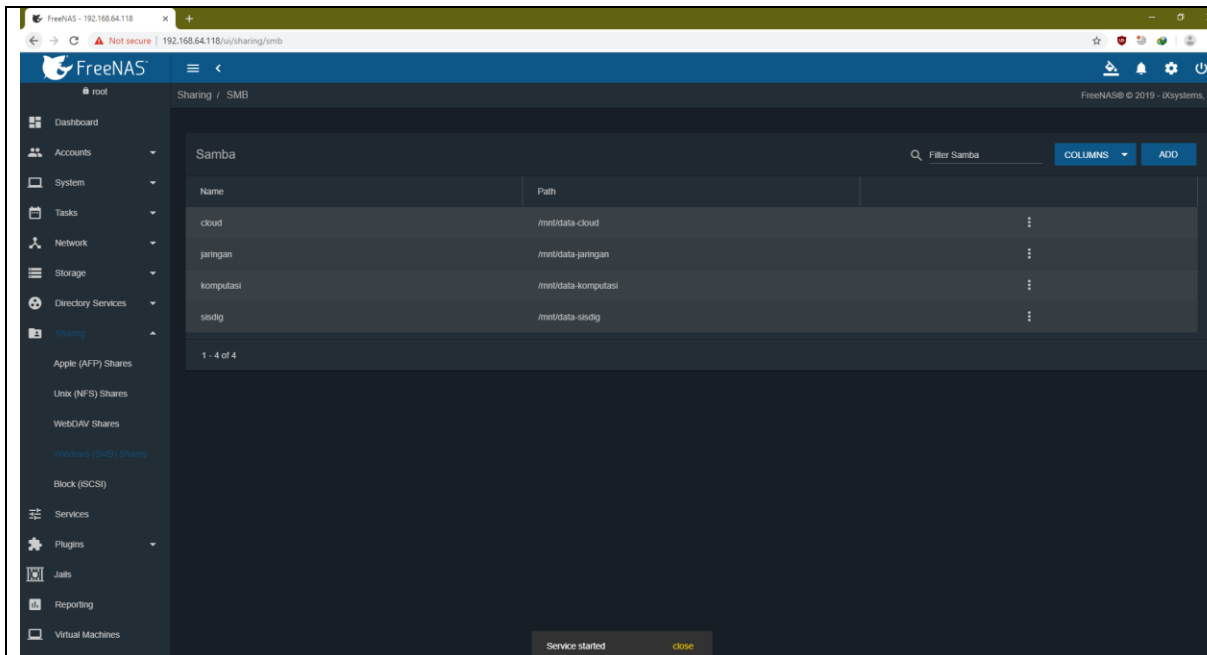


The screenshot shows the FreeNAS web interface with the 'Accounts / Users' menu selected. The 'Users' table lists the following users:

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
stidig	/nonexistent	/bin/csh	Lab Stidig	no
root	/root	/usr/local/bin/zsh	root	no
daemon	/root	/usr/sbin/nologin	Owner of many system processes	no
operator	/	/usr/sbin/nologin	System &	no
bin	/	/usr/sbin/nologin	Binaries Commands and Source	no
thy	/	/usr/sbin/nologin	Thy Sandbox	no
knem	/	/usr/sbin/nologin	Knem Sandbox	no
games	/	/usr/sbin/nologin	Games pseudo-user	no
news	/	/usr/sbin/nologin	News Subsystem	no

At the bottom of the table, it indicates '1 - 12 of 37' users.

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

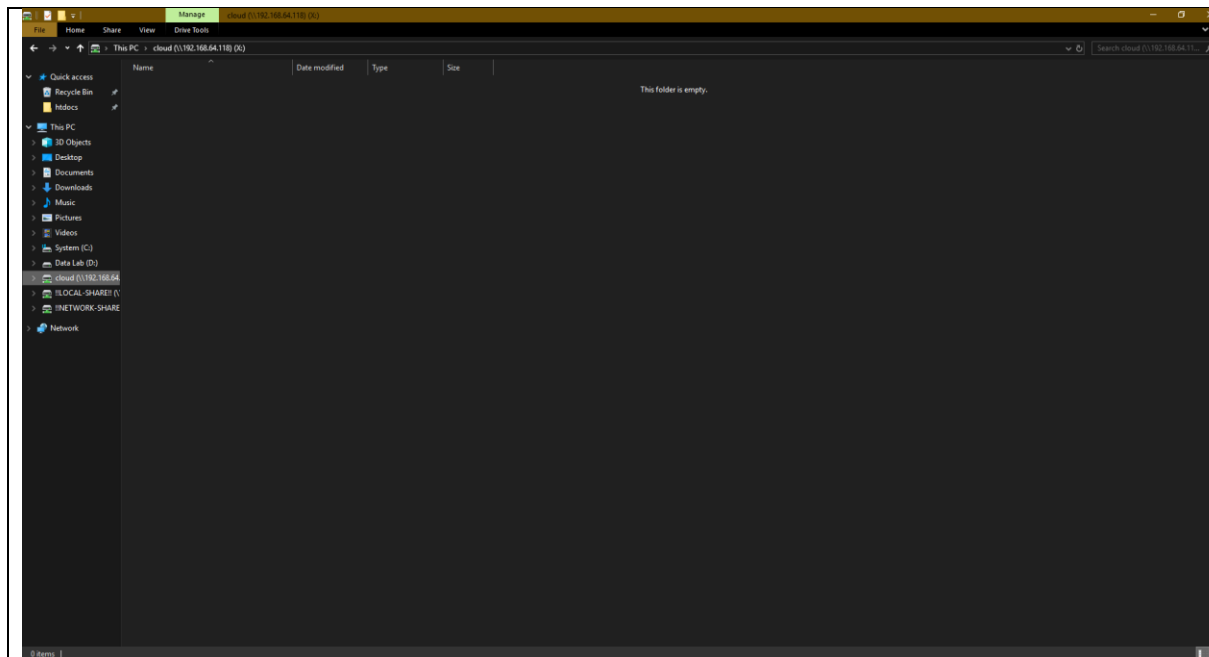


The screenshot shows the FreeNAS web interface with the 'Sharing / SMB' menu selected. The 'Samba' table lists the following shares:

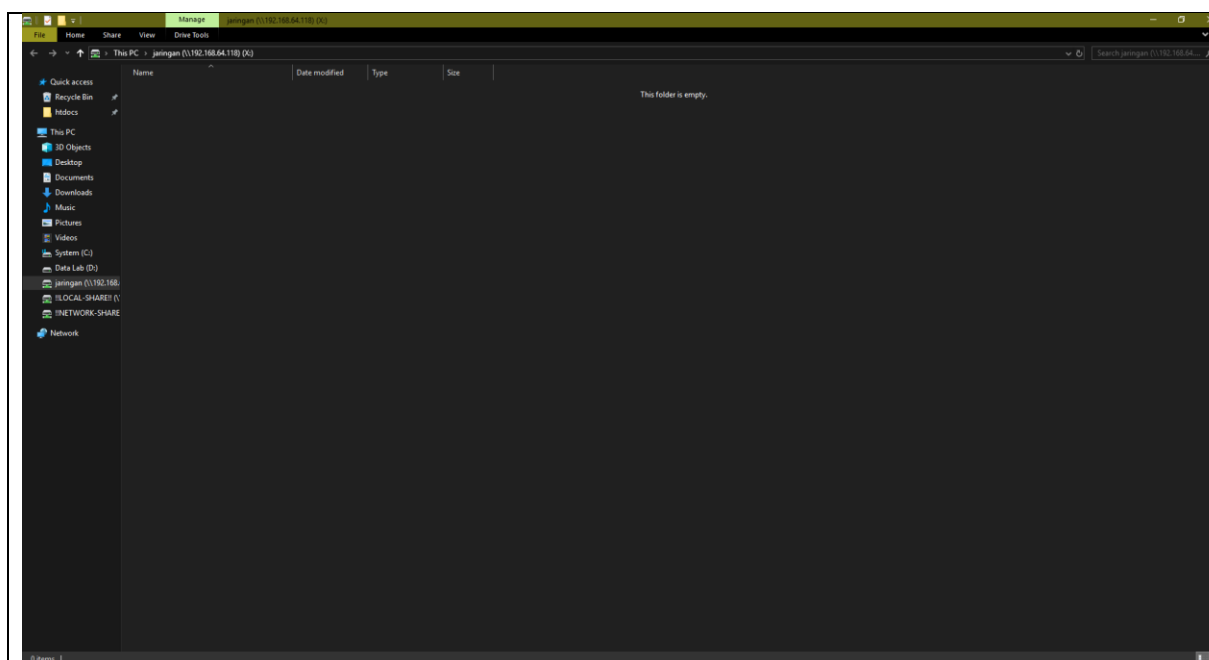
Name	Path
cloud	/mnt/data-cloud
jaringan	/mnt/data-jaringan
komputasi	/mnt/data-komputasi
stidig	/mnt/data-stidig

At the bottom of the table, it indicates '1 - 4 of 4' shares. A 'Service started' message is visible at the bottom of the page.

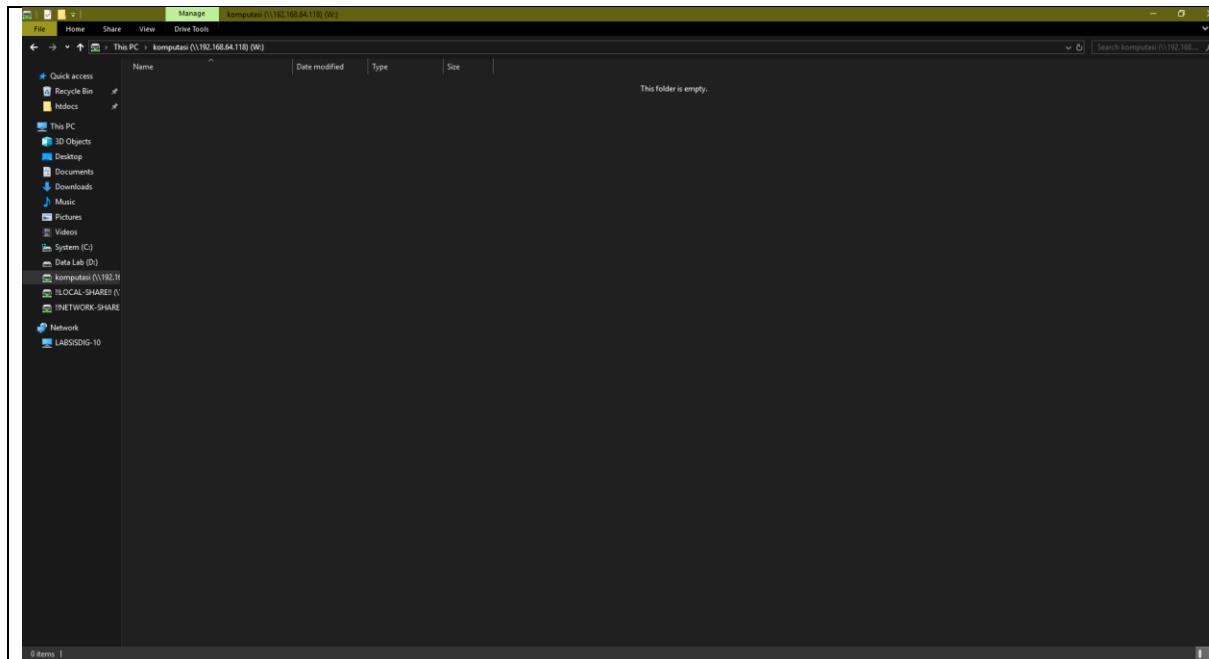
7. Tampilkan hasil akses shares pada Windows Explorer (hasil mapping) untuk Lab Cloud (yang pertama kali dibuat)



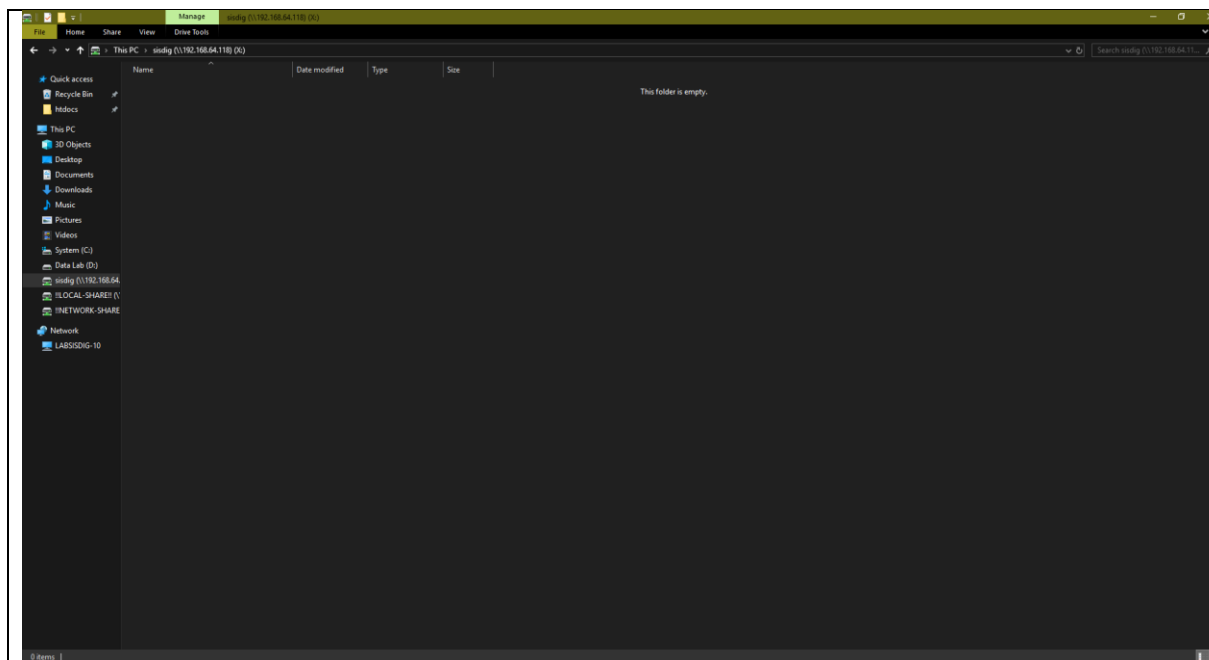
8. Tampilkan hasil akses shares untuk Lab Jaringan



9. Tampilkan hasil akses shares untuk Lab Komputasi



10. Tampilkan hasil akses shares untuk Lab Sisdig



DOKUMENTASI PERTEMUAN KELIMA (BILA ADA)

Storage Tech (teknologi penyimpanan yang ada)

1. NAS (penyimpanan dengan server dimana user perlu hak akses khusus jika ingin menggunakan)
2. SAN(penyimpanan dengan memberikan 1 folder/hardisk virtual kepada user)
3. DAS(penyimpanan dengan memberikan hardisk eksternal kepada user)