

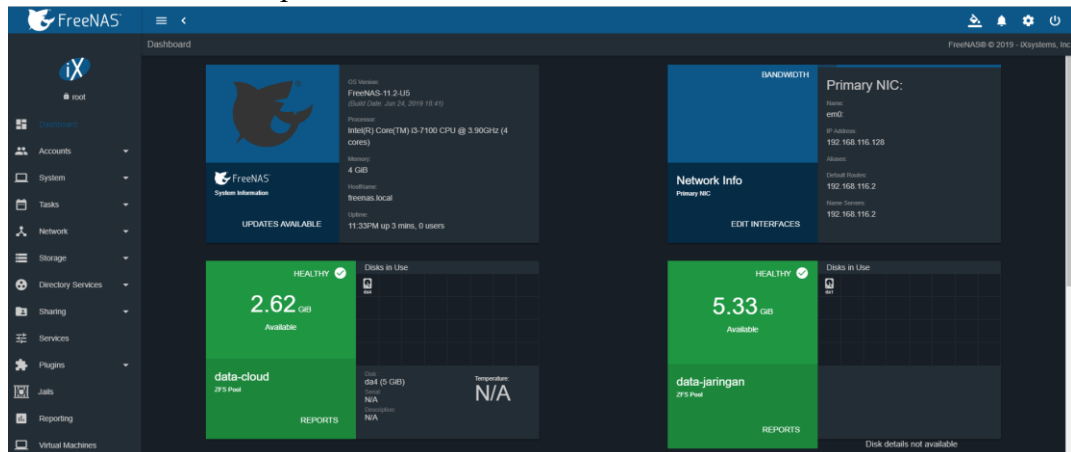
Nama : Muhamad Azam Fuadi

NIM : 123170059

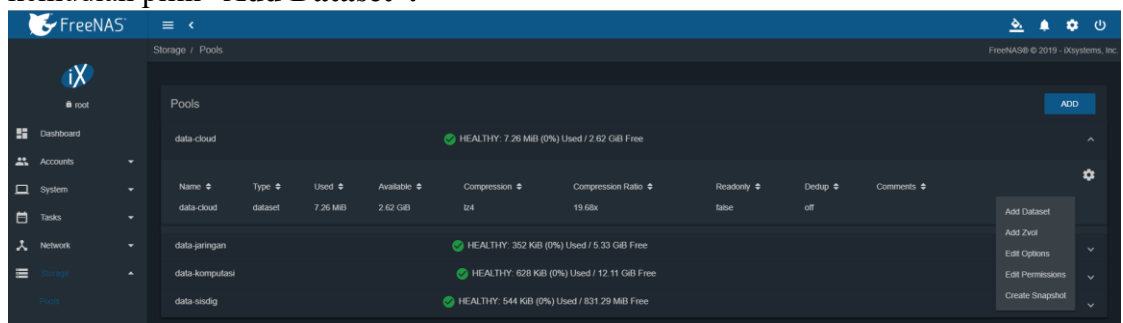
KONFIGURASI FREENAS LANJUTAN

➤ Konfigurasi S3 Bucket Service

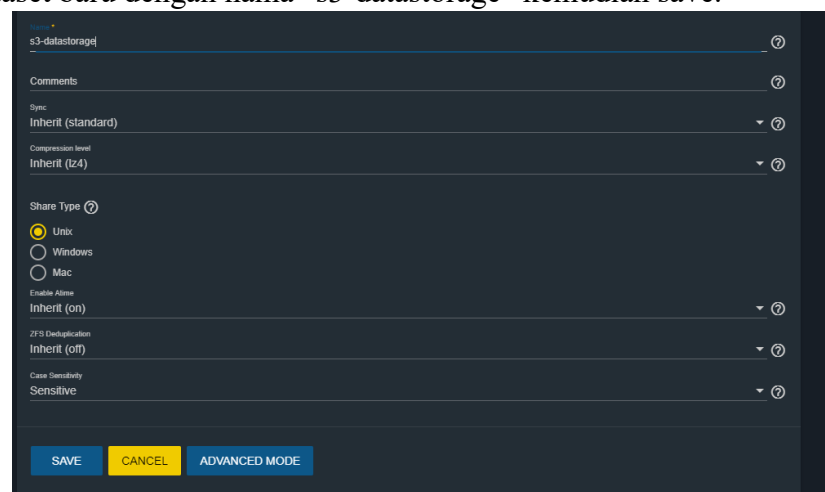
1. Login Dashboard FreeNas dengan mengakses IP pada browser, lalu login dengan username “root” dan password = NIM untuk masuk ke dashboard



2. Masuk menu “Storage Pool”. Pada pool “**data-cloud**” buka menu options, kemudian pilih “**Add Dataset**”.



3. Buat dataset baru dengan nama “s3-datastorage” kemudian save.



4. Berikut merupakan tampilan dataset yang telah dibuat

Pools

data-cloud

HEALTHY: 7.36 MiB (0%) Used / 2.62 GiB Free

Name	Type	Used	Available	Compression	Compression Ratio	Readonly	Dedup	Comments	
data-cloud	dataset	7.36 MiB	2.62 GiB	lz4	19.45x	false	off		
s3-datastorage	dataset	88 KiB	2.62 GiB	Inherits (lz4)	1.00x	false	off		

data-jaringan

HEALTHY: 352 KiB (0%) Used / 5.33 GiB Free

data-komputasi

HEALTHY: 628 KiB (0%) Used / 12.11 GiB Free

data-sisdig

HEALTHY: 544 KiB (0%) Used / 831.29 MiB Free

ADD

5. Masuk ke menu services. Kemudian cari service dengan nama S3. Klik pada icon pensil (Configure)

Filter Service			
Name	Running	Start Automatically	Actions
AFP	<input type="checkbox"/>	<input type="checkbox"/>	
Domain Controller	<input type="checkbox"/>	<input type="checkbox"/>	
Dynamic DNS	<input type="checkbox"/>	<input type="checkbox"/>	
FTP	<input type="checkbox"/>	<input type="checkbox"/>	
iSCSI	<input type="checkbox"/>	<input type="checkbox"/>	
LLDP	<input type="checkbox"/>	<input type="checkbox"/>	
netdata	<input type="checkbox"/>	<input type="checkbox"/>	
NFS	<input type="checkbox"/>	<input type="checkbox"/>	
Rsync	<input type="checkbox"/>	<input type="checkbox"/>	
S.M.A.R.T.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
S3	<input type="checkbox"/>	<input type="checkbox"/>	
SMB	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SNMP	<input type="checkbox"/>	<input type="checkbox"/>	

6. Konfigurasi S3 Service dengan konfigurasi sebagai berikut :

IP Address

192.168.116.128

?

Port *

9000

?

Access Key *

S3nickname

?

Secret Key *

123170059

👁 ?

Confirm Secret Key *

123170059

Disk *

/mnt/data-cloud/s3-datastorage

?

/mnt

data-cloud

s3-datastorage

data-jaringan

data-komputasi

data-sisdig

☒ Enable Browser

?

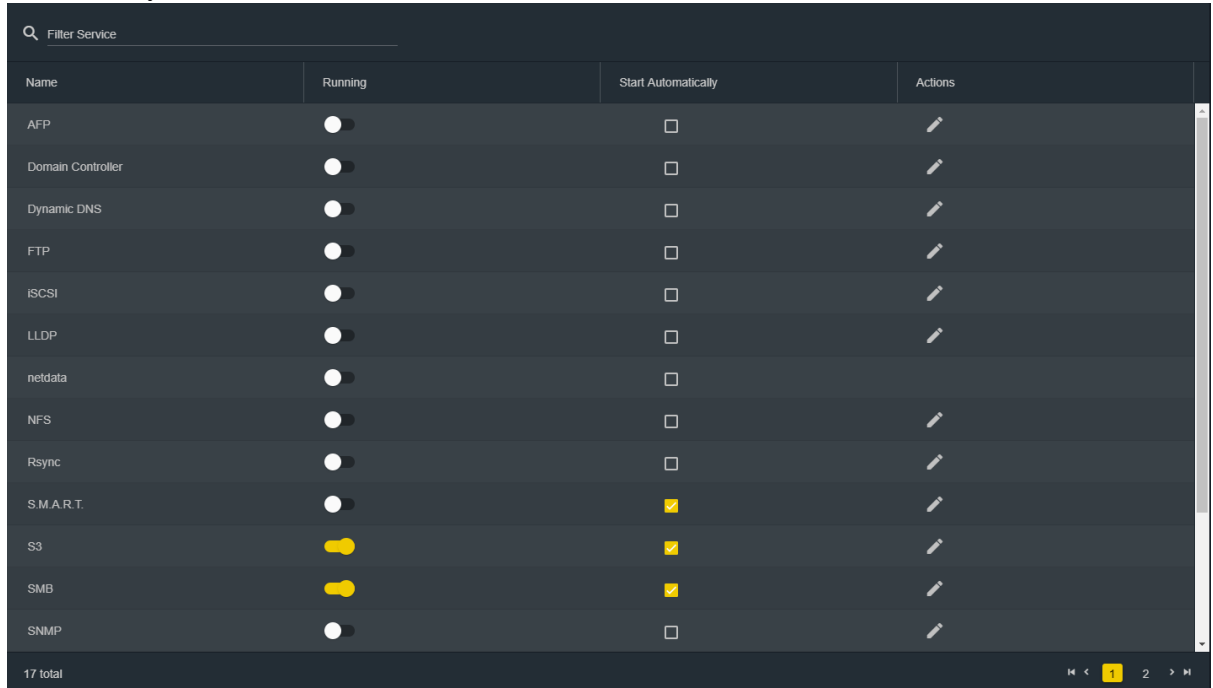
Certificate

?

SAVE

CANCEL

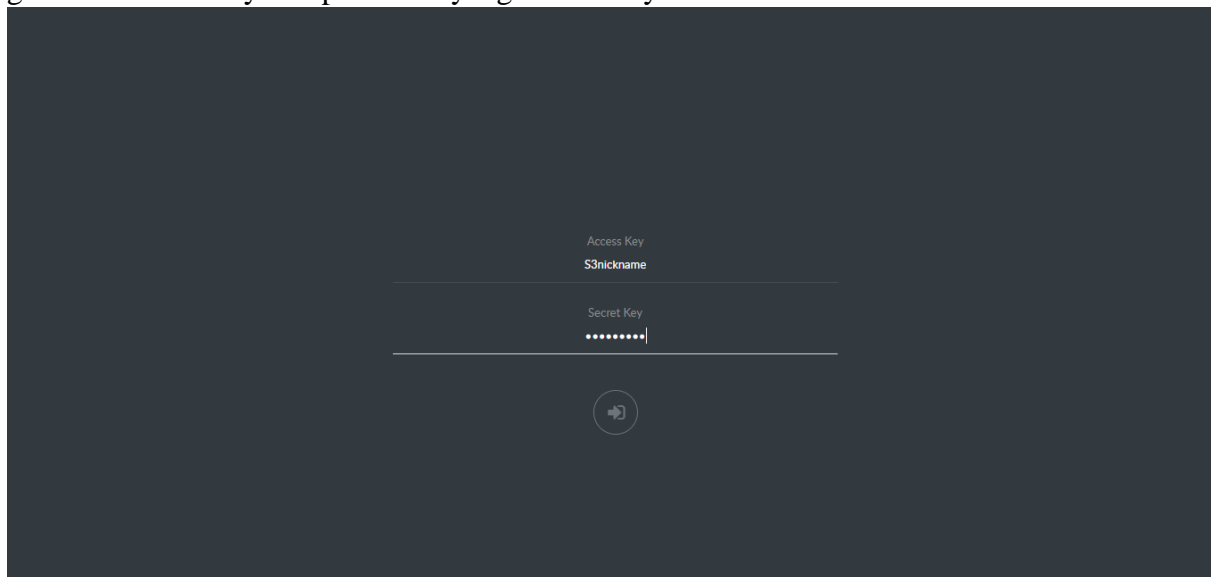
7. Aktivasi layanan S3



Name	Running	Start Automatically	Actions
AFP	<input type="checkbox"/>	<input type="checkbox"/>	
Domain Controller	<input type="checkbox"/>	<input type="checkbox"/>	
Dynamic DNS	<input type="checkbox"/>	<input type="checkbox"/>	
FTP	<input type="checkbox"/>	<input type="checkbox"/>	
iSCSI	<input type="checkbox"/>	<input type="checkbox"/>	
LLDP	<input type="checkbox"/>	<input type="checkbox"/>	
netdata	<input type="checkbox"/>	<input type="checkbox"/>	
NFS	<input type="checkbox"/>	<input type="checkbox"/>	
Rsync	<input type="checkbox"/>	<input type="checkbox"/>	
S.M.A.R.T.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
S3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SMB	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SNMP	<input type="checkbox"/>	<input type="checkbox"/>	

17 total

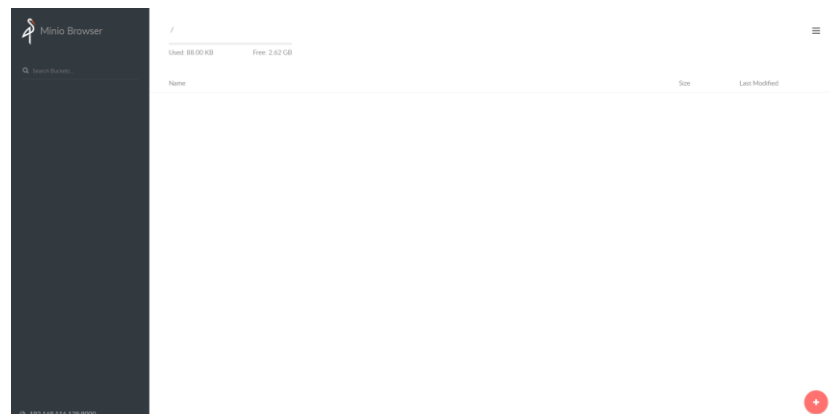
8. Akses layanan S3 dengan MinIO Web Based. Dengan cara : <http://IP:9000> gunakan access key dan password yang sebelumnya



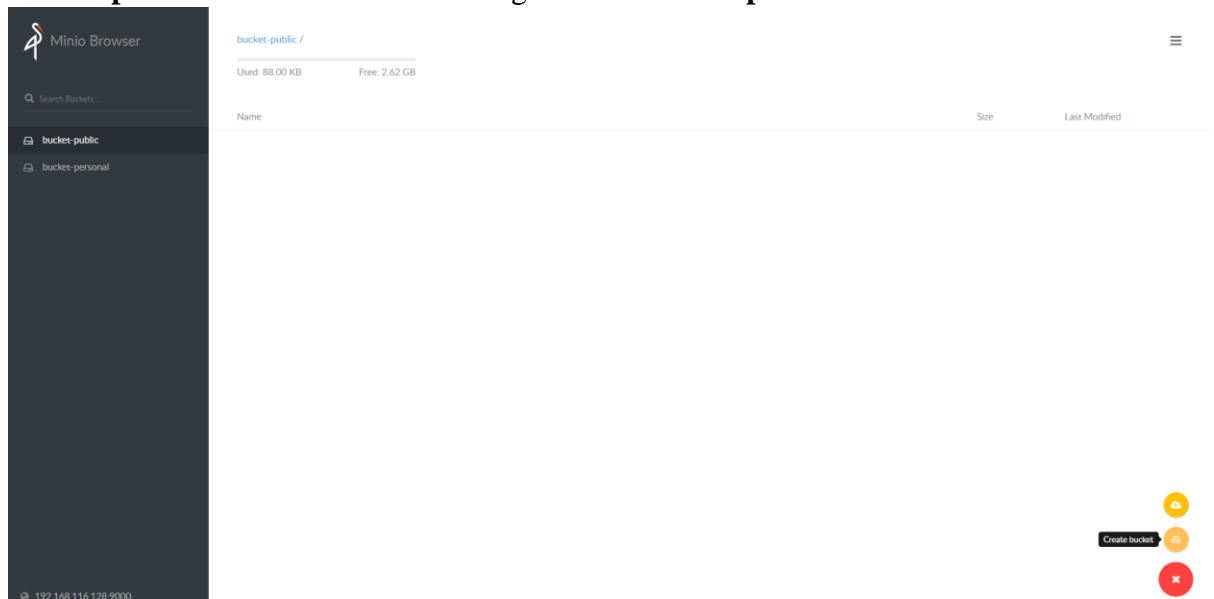
Access Key
S3nickname

Secret Key
.....

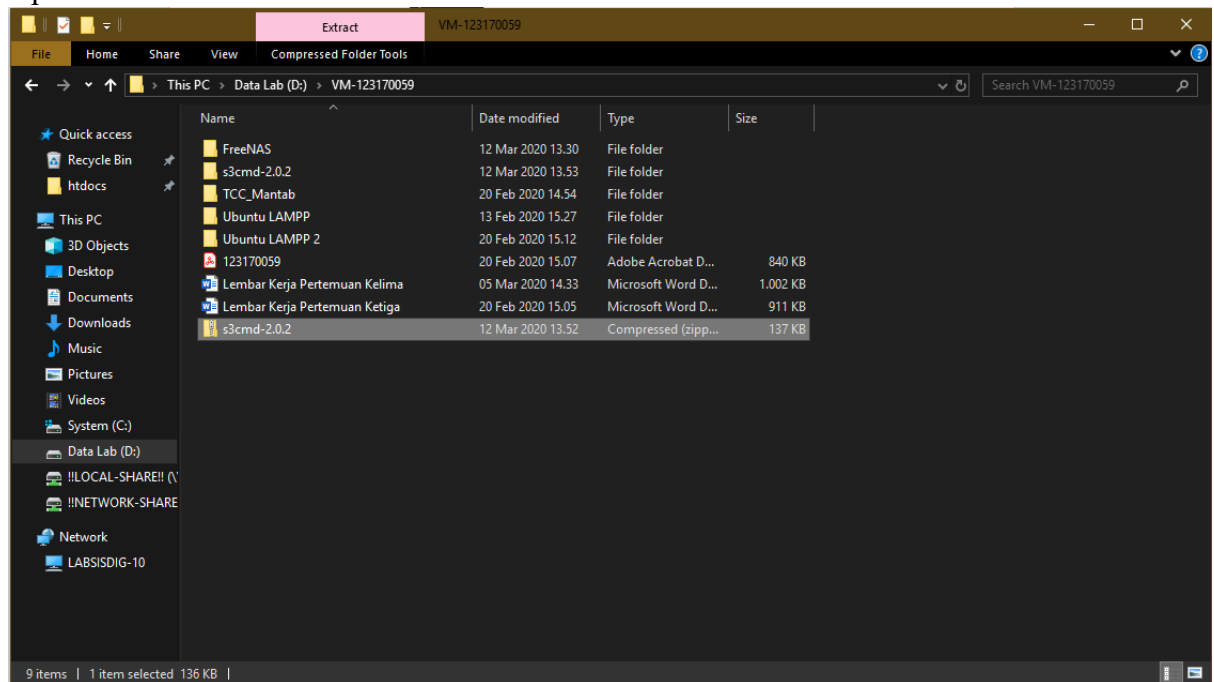
9. Tampilan dashboard MinIO



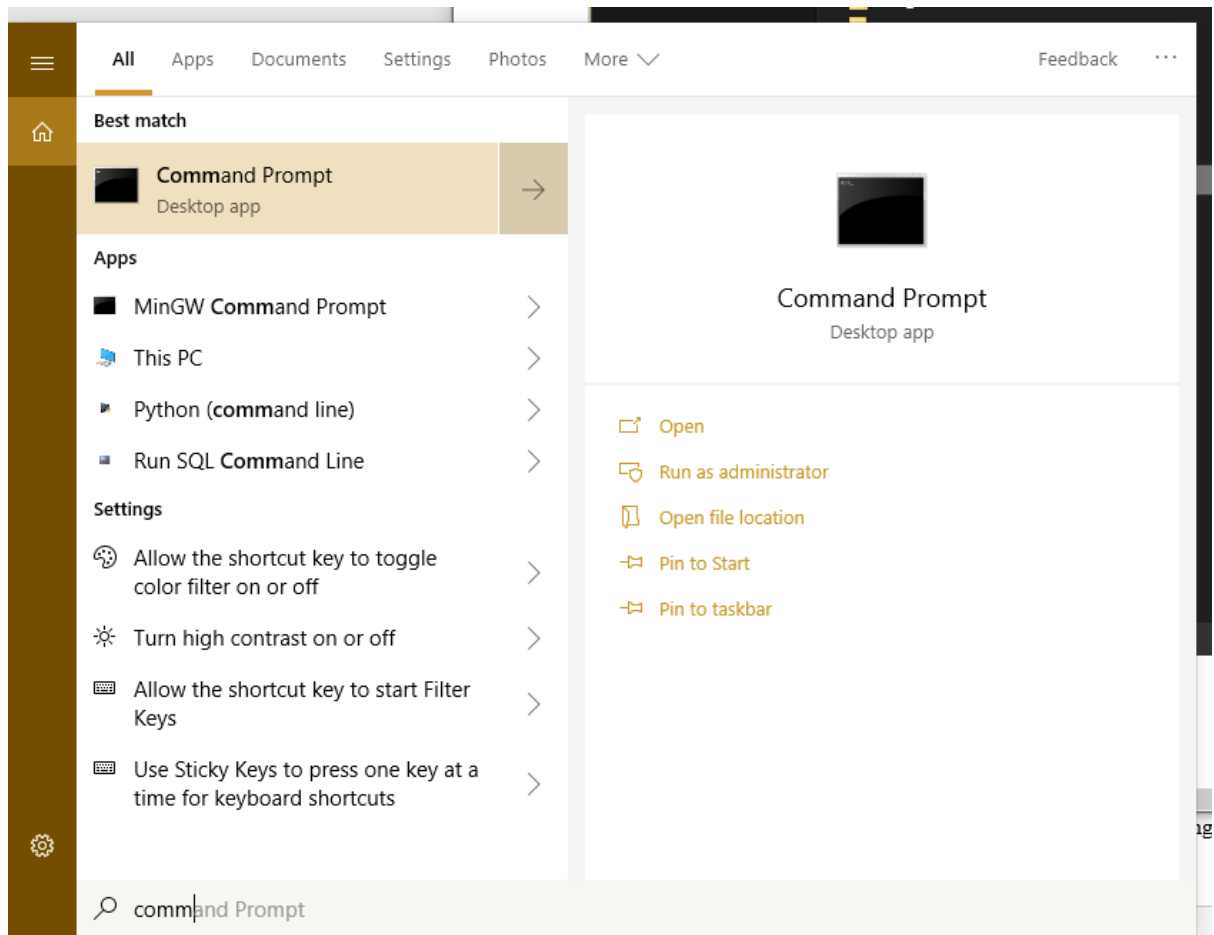
10. Pada bagian bawah, klik tombol add, kemudian pilih create bucket. Beri nama **bucket-personal** dan buat kembali dengan nama **bucket-public**



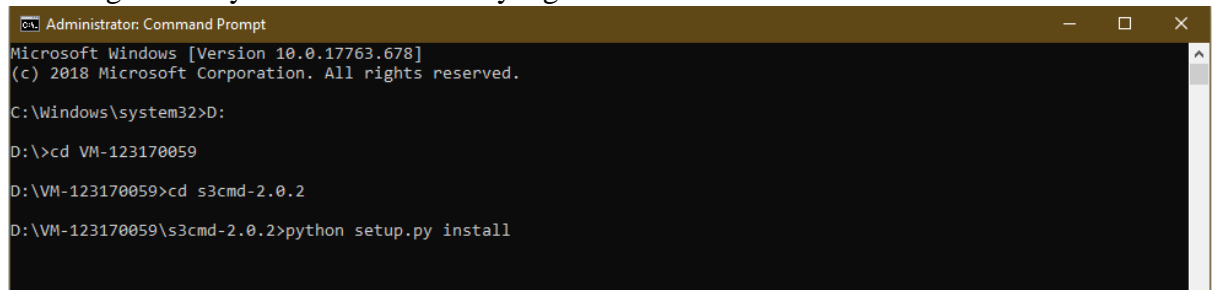
11. Mencoba s3cmd untuk upload data. Buka situs <http://link.upnyk.ac.id/s3cmd> atau <https://s3tools.org/download> kemudian unduh paket aplikasi s3cmd dalam bentuk zip. Ekstrak dalam folder “VM-NIM”



12. Install s3cmd dengan python. Buka command prompt dengan elevated privileges (run as admin)



13. Working directory folder ke folder s3 yang diunduh kemudian lakukan instalasi



14. Hasil setelah proses instalasi

```
Administrator: Command Prompt
Processing python_magic-0.4.15-py2.py3-none-any.whl
Installing python_magic-0.4.15-py2.py3-none-any.whl to c:\program files (x86)\python37-32\lib\site-packages
Adding python_magic 0.4.15 to easy-install.pth file

Installed c:\program files (x86)\python37-32\lib\site-packages\python_magic-0.4.15-py3.7.egg
Searching for python-dateutil
Reading https://pypi.org/simple/python-dateutil/
Downloading https://files.pythonhosted.org/packages/d4/70/d60450c3dd48ef87586924207ae8907090de0b306af2bce5d134d78615cb/p
python_dateutil-2.8.1-py2.py3-none-any.whl#sha256=75bb3f31ea686f1197762692a9ee6a7550b59fc6ca3a1f4b5d7e32fb98e2da2a
Best match: python-dateutil 2.8.1
Processing python_dateutil-2.8.1-py2.py3-none-any.whl
Installing python_dateutil-2.8.1-py2.py3-none-any.whl to c:\program files (x86)\python37-32\lib\site-packages
Writing requirements to c:\program files (x86)\python37-32\lib\site-packages\python_dateutil-2.8.1-py3.7.egg\EGG-INFO\re
quires.txt
Adding python-dateutil 2.8.1 to easy-install.pth file

Installed c:\program files (x86)\python37-32\lib\site-packages\python_dateutil-2.8.1-py3.7.egg
Searching for six>=1.5
Reading https://pypi.org/simple/six/
Downloading https://files.pythonhosted.org/packages/65/eb/1f97cb97bfc2390a276969c6fae16075da282f5058082d4cb10c6c5c1dba/s
ix-1.14.0-py2.py3-none-any.whl#sha256=8f3cd2e254d8f793e7f3d6d9df77b92252b52637291d0f0da013c76ea2724b6c
Best match: six 1.14.0
Processing six-1.14.0-py2.py3-none-any.whl
Installing six-1.14.0-py2.py3-none-any.whl to c:\program files (x86)\python37-32\lib\site-packages
Adding six 1.14.0 to easy-install.pth file

Installed c:\program files (x86)\python37-32\lib\site-packages\six-1.14.0-py3.7.egg
Finished processing dependencies for s3cmd==2.0.2

D:\VM-123170059\s3cmd-2.0.2>
```

15. Konfigurasi s3cmd. Ketikkan perintah **python s3cmd --configure**

```
ERROR: Consider using --configure parameter to create one.
```

```
D:\VM-123170059\s3cmd-2.0.2>python s3cmd --configure
```

16. Parameter Konfigurasi Isikan Access Key dengan “**S3nickname**” dan secret key dengan “**123170059**” . Kosongkan region. Untuk Endpoint isikan “**192.168.116.128:9000**” kosongkan bucket, encryption, dan GPG. Pada bagian https isikan “**No.**” kosongkan bagian proxy . Selanjutnya pilih “**Y**” dan save settings pilih “**Y**”

```
Administrator: Command Prompt - python s3cmd --configure
Enter new values or accept defaults in brackets with Enter.
Refer to user manual for detailed description of all options.

Access key and Secret key are your identifiers for Amazon S3. Leave them empty for using the env variables.
Access Key: S3nickname
Secret Key: 123170059
Default Region [US]:

Use "s3.amazonaws.com" for S3 Endpoint and not modify it to the target Amazon S3.
S3 Endpoint [s3.amazonaws.com]: 192.168.116.128:9000

Use "%(bucket)s.s3.amazonaws.com" to the target Amazon S3. "%(bucket)s" and "%(location)s" vars can be used
if the target S3 system supports dns based buckets.
DNS-style bucket+hostname:port template for accessing a bucket [% (bucket)s.s3.amazonaws.com]:

Encryption password is used to protect your files from reading
by unauthorized persons while in transfer to S3
Encryption password:
Path to GPG program:

When using secure HTTPS protocol all communication with Amazon S3
servers is protected from 3rd party eavesdropping. This method is
slower than plain HTTP, and can only be proxied with Python 2.7 or newer
Use HTTPS protocol [Yes]: No

On some networks all internet access must go through a HTTP proxy.
Try setting it here if you can't connect to S3 directly
HTTP Proxy server name:

New settings:
```

17. Tampilan setelah selesai

```
Administrator: Command Prompt
slower than plain HTTP, and can only be proxied with Python 2.7 or newer
Use HTTPS protocol [Yes]: No

On some networks all internet access must go through a HTTP proxy.
Try setting it here if you can't connect to S3 directly
HTTP Proxy server name:

New settings:
Access Key: S3nickname
Secret Key: 123170059
Default Region: US
S3 Endpoint: 192.168.116.128:9000
DNS-style bucket+hostname:port template for accessing a bucket: %(bucket)s.s3.amazonaws.com
Encryption password:
Path to GPG program: None
Use HTTPS protocol: False
HTTP Proxy server name:
HTTP Proxy server port: 0

Test access with supplied credentials? [Y/n] Y
Please wait, attempting to list all buckets...
Success. Your access key and secret key worked fine :-))

Now verifying that encryption works...
Not configured. Never mind.

Save settings? [y/N] y
Configuration saved to 'C:\Users\Lab Informatika\AppData\Roaming\s3cmd.ini'

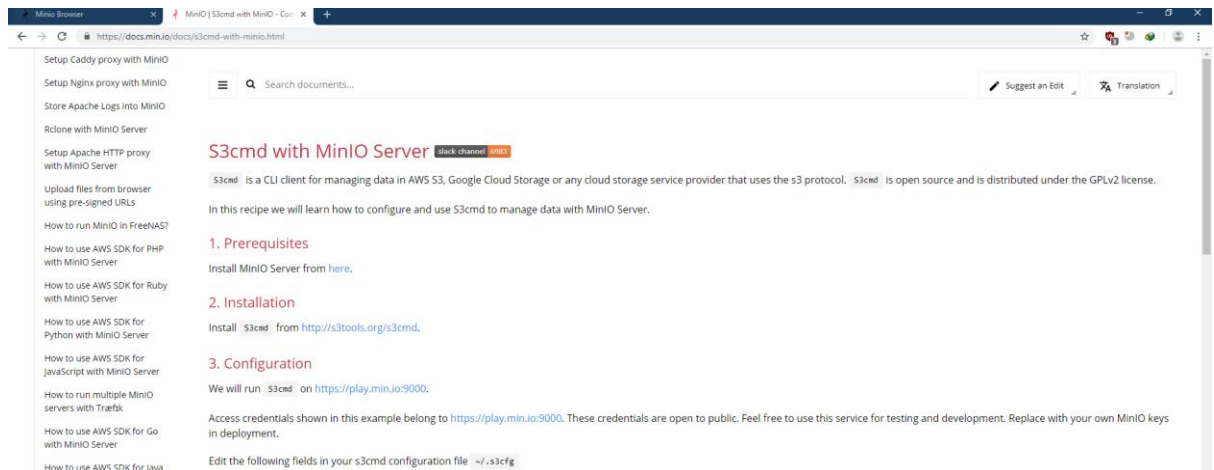
D:\VM-123170059\s3cmd-2.0.2>
```

18. Mencoba perintah s3cmd. Pada jendela cmd ketikkan **python s3cmd ls** untuk melisting isi dari bucket 23 pada freenas

```
D:\VM-123170059\s3cmd-2.0.2>python s3cmd ls
2020-03-12 06:50 s3://bucket-personal
2020-03-12 06:50 s3://bucket-public

D:\VM-123170059\s3cmd-2.0.2>
```

19. Dokumentasi s3cmd dapat dilihat pada dokumentasi yang dapat diakses melalui <https://docs.min.io/docs/s3cmd-with-minio.html> cobalah sintaks upload dan download



20. Contoh perintah upload file pada bucket : **python s3cmd put mencoba.txt s3://bucket-personal**

➤ Monitoring dengan net data service. KONFIGURASI NET DATA

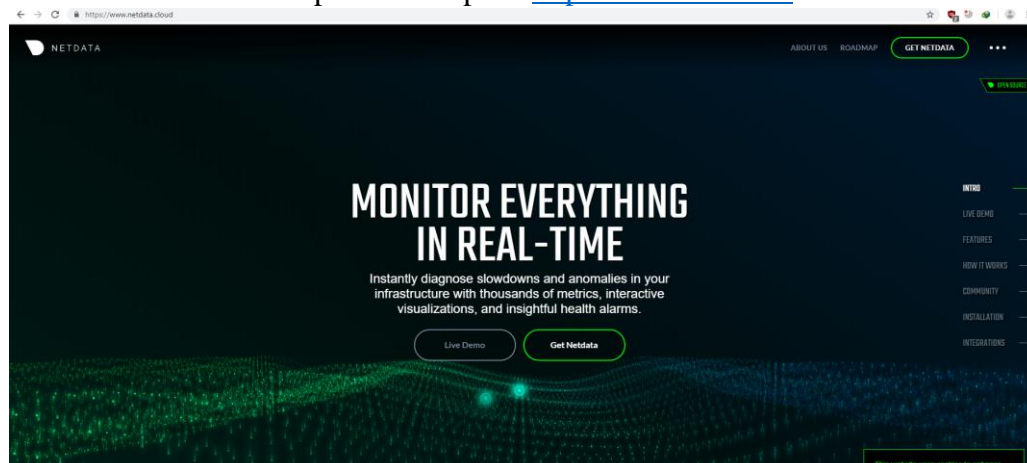
1. Login kembali pada FreeNas
2. Masuk menu services, cari nama service dengan nama **netdata**
3. Aktifkan dan jangan lupa checklist pada bagian **Start Automatically**. Kemudian klik pada **actions > launch**

Filter Service			
Name	Running	Start Automatically	Actions
AFP	<input type="checkbox"/>	<input type="checkbox"/>	
Domain Controller	<input type="checkbox"/>	<input type="checkbox"/>	
Dynamic DNS	<input type="checkbox"/>	<input type="checkbox"/>	
FTP	<input type="checkbox"/>	<input type="checkbox"/>	
iSCSI	<input type="checkbox"/>	<input type="checkbox"/>	
LLDP	<input type="checkbox"/>	<input type="checkbox"/>	
netdata	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
NFS	<input type="checkbox"/>	<input type="checkbox"/>	
Rsync	<input type="checkbox"/>	<input type="checkbox"/>	
S.M.A.R.T.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
S3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
SMB	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
17 total			

4. Tampilan **netdata** dapat juga diakses dengan <https://IP/netdata>



5. Dokumentasi **netdata** dapat diakses pada <https://netdata.cloud>



➤ **Jails dengan Transmission**

1. Login dashboard FreeNas
2. Masuk Bagian services
3. Lanjutannya dapat dicari di youtube