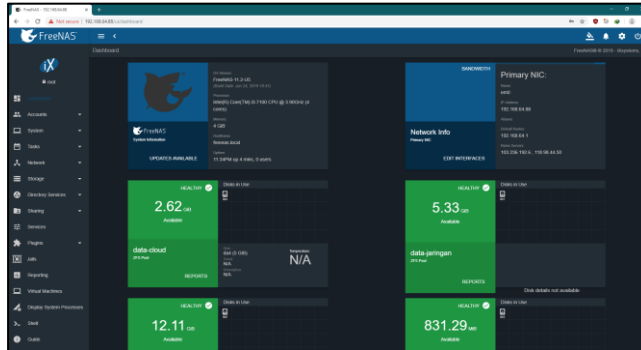


Nama : Muhammad Yora Reza Alfajri

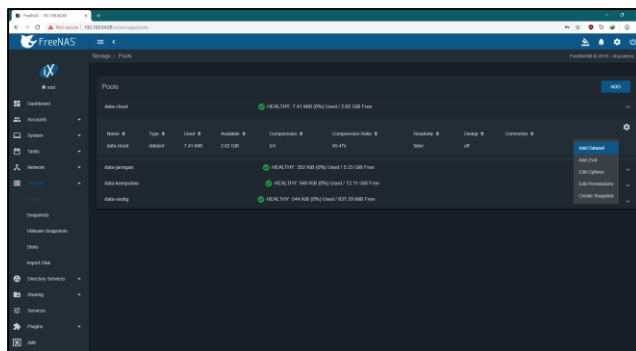
NIM : 123170070

1. Konfigurasi FREENAS Lanjutan

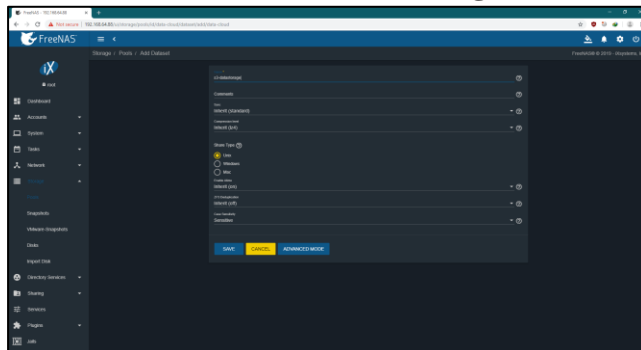
a. Login dashboard FreeNAS



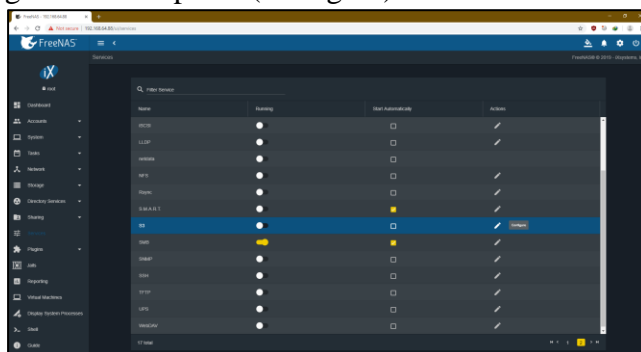
b. Masuk menu storage pool, lalu pada **data-cloud** buka menu options kemudian pilih **Add Dataset**



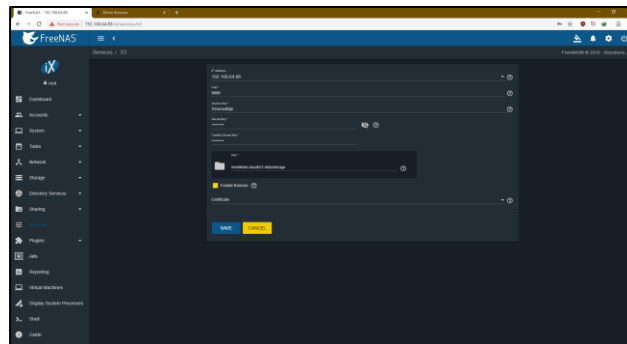
c. Gunakan nama dataset **s3-datastorage** kemudian **save**



d. Masuk ke menu services, kemudian cari service dengan nama **S3**, klik pada gambar ikon pensil (configure)



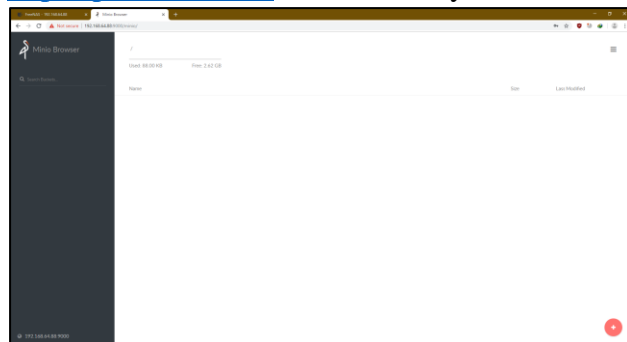
- e. Konfigurasi S3 Service. Pada bagian IP Address, pilih IP FreeNAS masing-masing. Pada bagian Access Key, isikan S3nickname masing-masing. Pada bagian Secret Key isikan NIM. Folder /mnt/data-cloud/s3-datastorage lalu checklist enable browser. Lalu save.



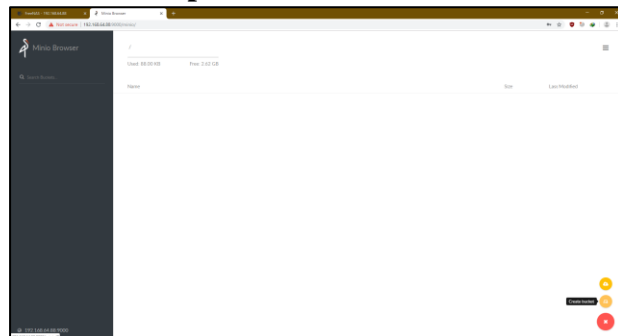
- f. Lalu run S3

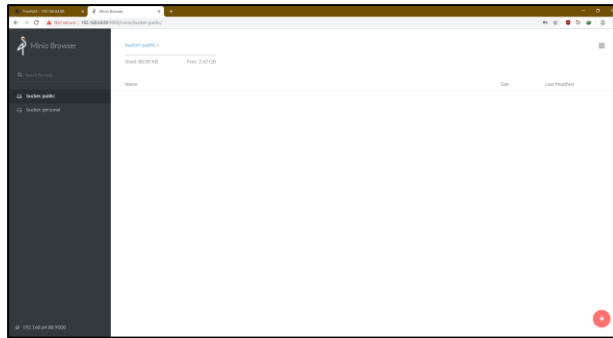


- g. Akses layanan S3 dengan MinIO Web Based. Buka browser, arahkan pada alamat <http://ipfreenas:9000>. Isi access key dan secret key

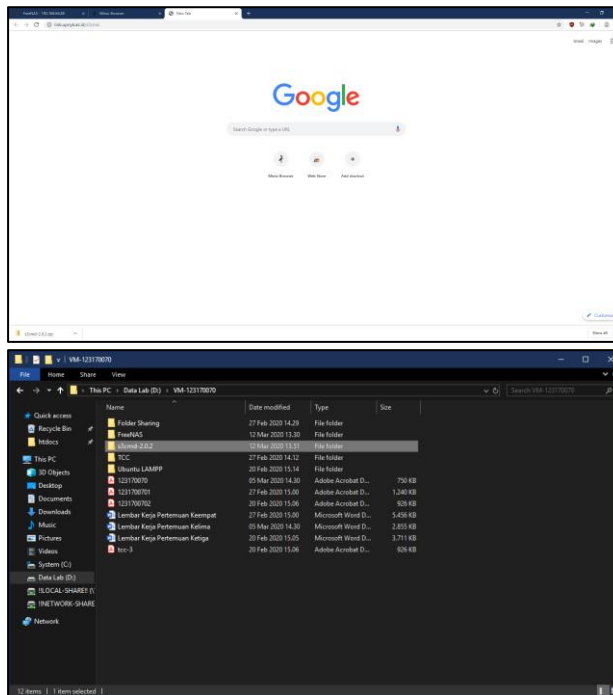


- h. Tampilan dashboard MinIO. Pada bagian kanan bawah klik tombol **Add** kemudian pilih **create bucket** beri nama **bucket-personal**. Buat kembali dan beri nama **bucket-public**.

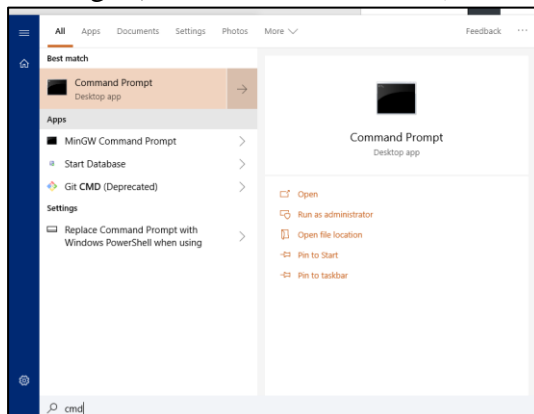




- i. Mencoba s3cmd untuk upload data. Buka situs <http://link.upnyk.ac.id/s3cmd>. Kemudian unduh paket aplikasi s3cmd dalam bentuk zip. Ekstrak ke folder **VM-NIM**.



- j. Install s3cmd dengan Python. Buka **Command Prompt** dengan mode Elevated Privileges(**Run as Administrator**).



- k. Working directory ke folder S3 hasil unduh. Arahkan working directory CMD ke isi folder yang telah diunduh sebelumnya. Gunakan **D:** kemudian **cd VM-NIM** kemudian **cd s3cmd-2.0.2**. Kemudian ketikkan perintah **pyhton setup.py install**.

```
Administrator Command Prompt
Microsoft Windows [Version 10.0.17763.578]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Windows\System32>D:
D:\>cd VM-123170070
D:\VM-123170070>cd s3cmd-2.0.2
D:\VM-123170070>s3cmd-2.0.2python setup.py install
Using setuptools.ElementTree for XML processing
running install
running egg_info
writing s3cmd.egg-info\PKG-INFO
writing dependency_links to s3cmd.egg-info\dependency_links.txt
writing requirements to s3cmd.egg-info\requires.txt
writing top-level names to s3cmd.egg-info\top_level.txt
reading manifest file 's3cmd.egg-info\SOURCES.txt'
reading manifest template 'MANIFEST.in'
writing manifest file 's3cmd.egg-info\SOURCES.txt'
installing library code to build\bdist.win32\egg
running install_lib
running build_py
creating build\lib
creating build\lib\site-packages
copying S3Accessing.py -> build\lib\site-packages
copying S3ACL.py -> build\lib\site-packages
copying S3VidInfo.py -> build\lib\site-packages

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/d68456c3d448ef97586924207ae007090d4e0306af28c6d134d78615c8c/p
ython_dateutil-2.8.1-py2.py3-none-any.whl#sha256=755b3f31ea886f1197762092a9ee6a7550b59fcca3a1f4b5d7e32fb98a2da2a
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/1f97cb07bfc2390a27696c6fae16075da282f5058082d4cb18c6c5c1d0a/s
ix-1.14.0-py2.py3-none-any.whl#sha256=8f3cd2e54d8793e7f3d60d4f77b92252b52637291d0fda013c76ea2724bdc
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-123170070>s3cmd-2.0.2_
```

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

```
Administrator Command Prompt: python s3cmd --configure
python_dateutil-2.8.1-py2.py3-none-any.whl#sha256=755b3f31ea886f1197762092a9ee6a7550b59fcca3a1f4b5d7e32fb98a2da2a
Best match: python_dateutil 2.8.1
Installing python_dateutil-2.8.1-py2.py3-none-any.whl
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/1f97cb07bfc2390a27696c6fae16075da282f5058082d4cb18c6c5c1d0a/s
ix-1.14.0-py2.py3-none-any.whl#sha256=8f3cd2e54d8793e7f3d60d4f77b92252b52637291d0fda013c76ea2724bdc
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-123170070>s3cmd-2.0.2python s3cmd --configure
ERROR: Option --preserve is not yet supported on MS Windows platform. Assuming --no-preserve.
ERROR: Option --progress is not yet supported on MS Windows platform. Assuming --no-progress.

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: _
Secret Key: _
```

- m. Parameter konfigurasi. Isikan Access Key **S3nickname** dan Secret Key **NIM**. Untuk pilihan region **kosongkan** dan untuk Endpoint isikan **IP.FreeNASL:9000**. Isian bucket, encryption, dan GPG **kosongkan**. Bagaian https isi **No**. Bagian proxy **kosongkan**. Test settings, isikan **Y**. Bila berhasil statusnya akan **Success**. Kemudian save settings dengan isian **Y**.

```
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:

Now settings:
Access Key: S3rezaalfajri
Secret Key: 123170070
Default region: US
S3 Endpoint: 192.168.64.88:9000
DNS-style bucket/hostname: port template for accessing a bucket: s(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-123170070>s3cmd-2.0.2_
```

- n. Mencoba perintah s3cmd. Pada jendela CMD, ketikkan **python s3cmd ls** untuk melisting isi dari bucket pada s3 FreeNAS.

```

Administrator Command Prompt
Try setting it here if you can't connect to S3 directly
HTTP Proxy server name:

Now settings:
Access Key: S3rezaalfajri
Secret Key: 123170070
Default Region: us
S3 Endpoint: 192.168.64.88:9000
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'

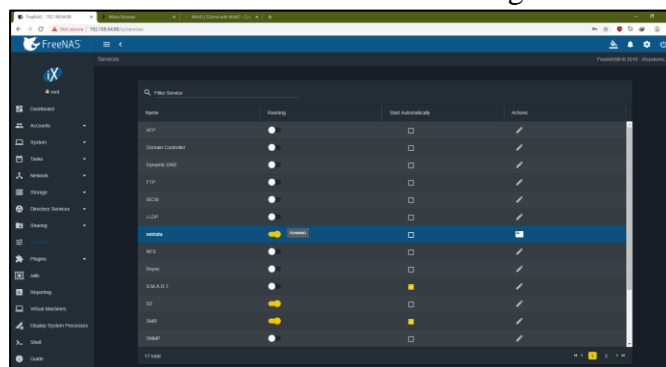
D:\VM-123170070\s3cmd-2.0.2>python s3cmd ls
2020-03-12 06:49 s3://bucket-personal
2020-03-12 06:50 s3://bucket-public
D:\VM-123170070\s3cmd-2.0.2>

```

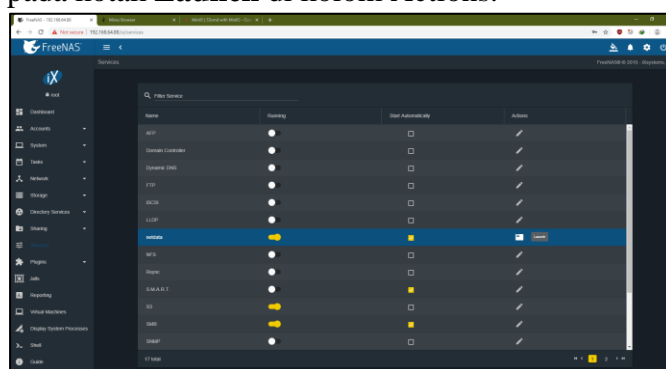
- o. Dokumentasi s3cmd. Buka dokumentasi s3cmd pada alamat <https://docs.min.io/docs/s3cmd-with-minio.html> kemudian cobalah sintaks **Upload dan Download**.
- p. Perintah upload file pada bucket. **python s3cmd put mencoba.txt s3://bucket-personal**.

2. Monitoring dengan NETDATA Service

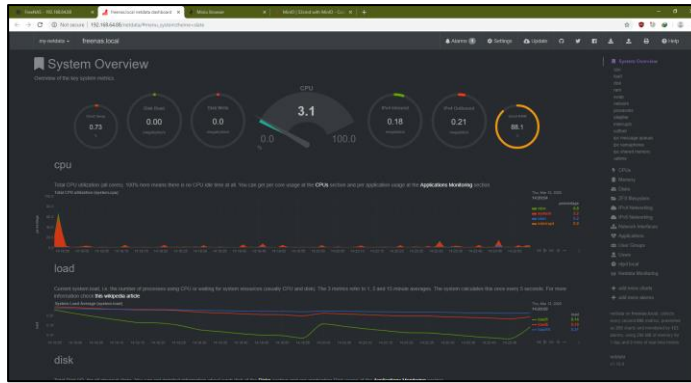
- a. Login FreeNAS.
- b. Masuk menu services. Cari service dengan nama netdata.



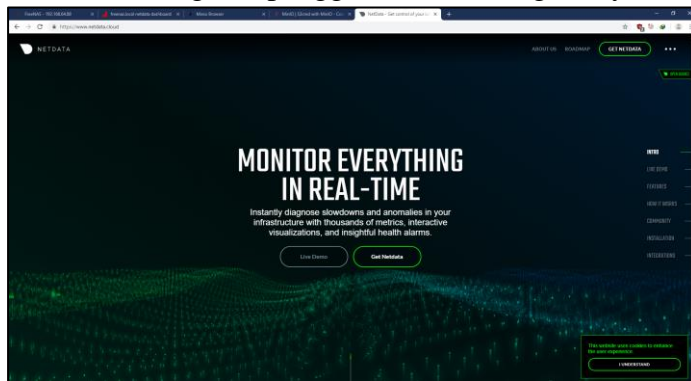
- c. Nyalakan service netdata. Geser slider hingga statusnya **Running**, jangan lupa beri checklist pada bagian **Start Automatically** di sebelahnya. Kemudian klik pada kotak **Launch** di kolom Actions.



- d. Tampilan netdata. Netdata juga dapat diakses melalui <http://IP.FREENAS/netdata>



- e. Dokumentasi netdata. Buka laman <https://netdata.cloud> untuk mendapatkan informasi mengenai penggunaan dan integrasinya.



3. Mencoba JAILS dengan TRANSMISSION
 - a. Login FreeNAS.
 - b.