

Nama : Syava Aprilia Puspitasari

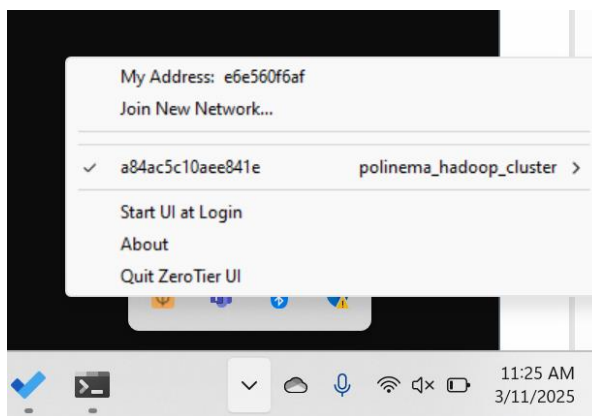
NIM : 2241760129

Kelas : 3E

BIG DATA

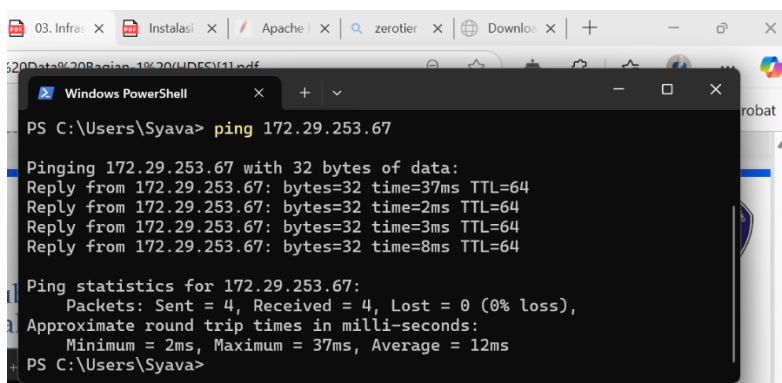
1. Download dan install VPN ZeroTier
2. Konfigurasi VPN Client dan Bergabung ke Jaringan VPN dengan :
 - Klik kanan ikon ZeroTier di system tray.
 - Klik "Join New Network".
 - Memasukkan network ID **a84ac5c10aee841e**

Hasil :



3. Menguji apakah sudah terhubung dengan jaringan VPN cluster Hadoop :
 - Buka CMD/terminal
 - Lalu ping IP 172.29.253.67

Hasil

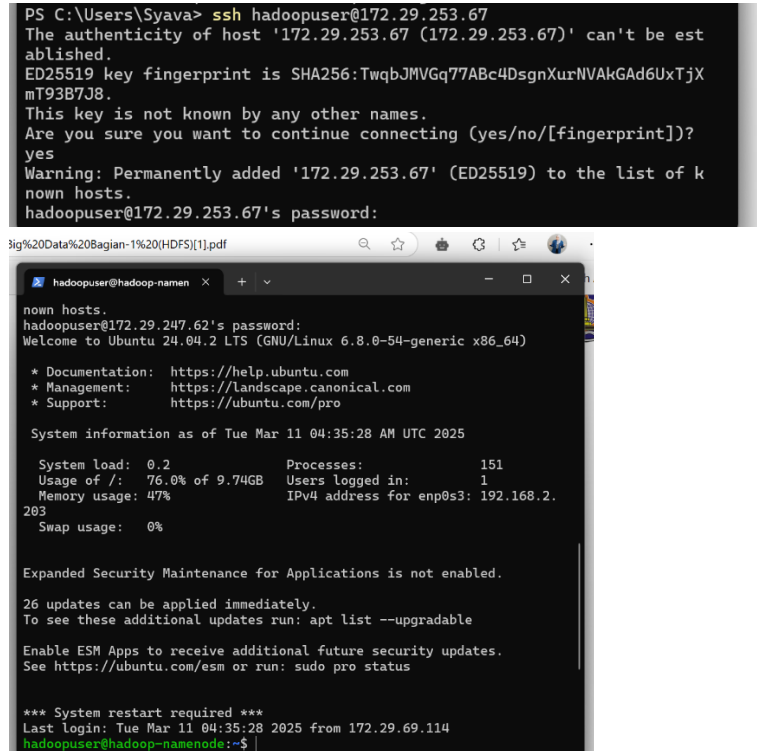


4. Mengakses Cluster Hadoop

a. Mencoba menghubungkan dengan node melalui SSH

- Ketikkan perintah: `ssh hadoopuser@172.29.253.67`
- Masukkan password: Hadoop

Hasil:

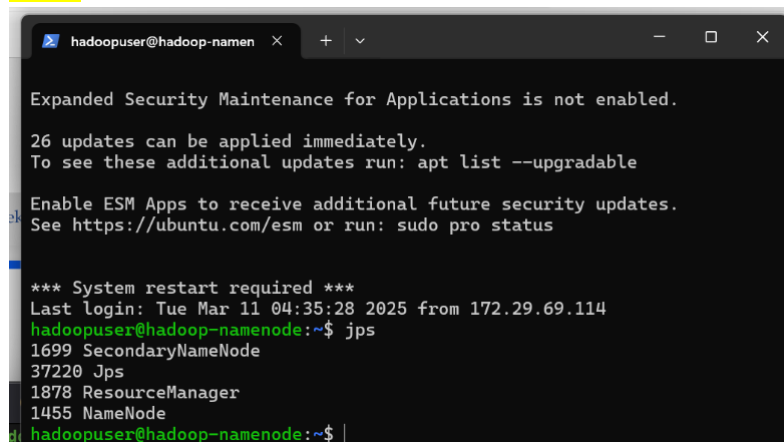


```
PS C:\Users\Syava> ssh hadoopuser@172.29.253.67
The authenticity of host '172.29.253.67 (172.29.253.67)' can't be est
ablished.
ED25519 key fingerprint is SHA256:TwqbJMVGq77ABc4DsgnXurNVakGAd6UxTjX
mT93B7J8.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])?
yes
Warning: Permanently added '172.29.253.67' (ED25519) to the list of k
nown hosts.
hadoopuser@172.29.253.67's password:
hadoopuser@hadoop-namenode:~$
```

b. Cek Status Name Node :

- Ketik perintah “jps”

Hasil:



```
hadoopuser@hadoop-namenode:~$ jps
1699 SecondaryNameNode
37220 Jps
1878 ResourceManager
1455 NameNode
hadoopuser@hadoop-namenode:~$
```

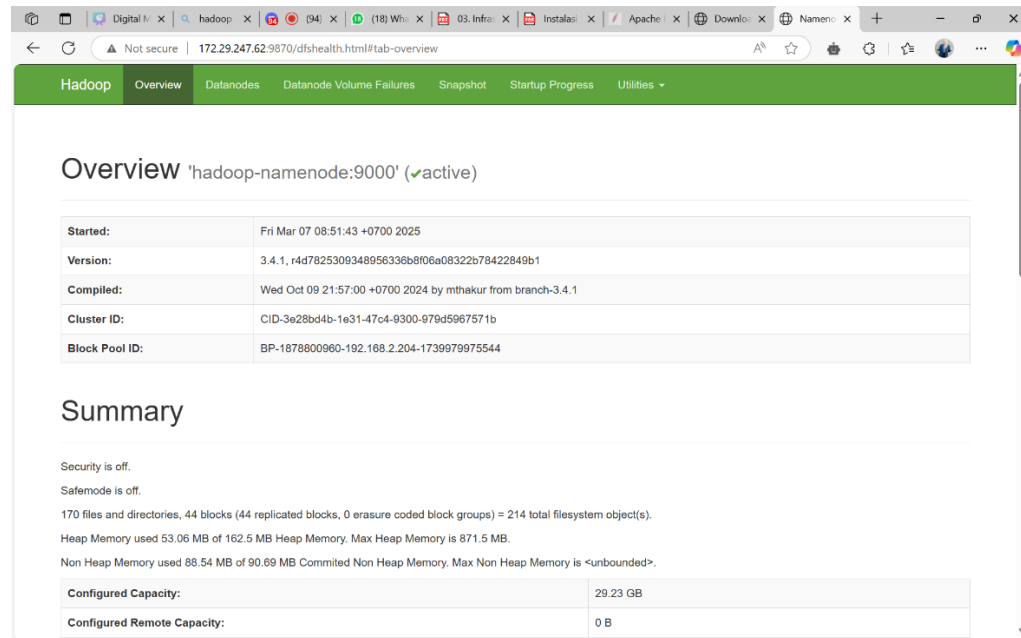
Berhasil terhubung dengan name node melalui SSH dengan cek pada terminal mengetikkan perintah “JPS” dan menampilkan status mesin saat ini yang bertugas sebagai name node.

c. Melihat Status Data Nodes

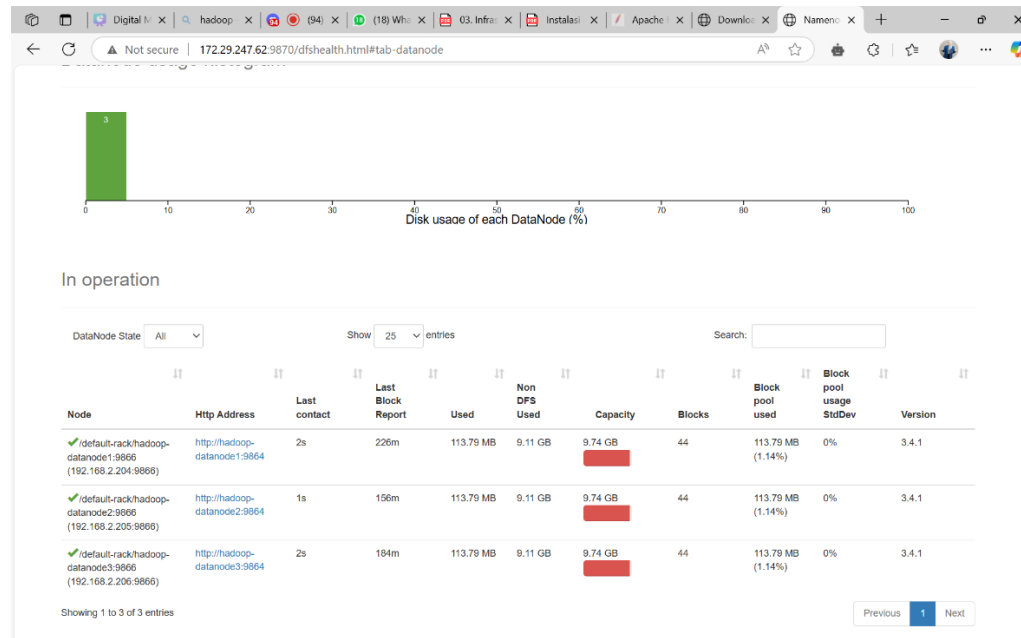
Status data nodes saat ini melalui GUI Web yang dapat diakses melalui alamat:

- <http://172.29.247.62:9870/dfshealth.html>

Hasil:



- Klik menu Datanodes untuk melihat informasi data node yang ada pada cluster.



- Melihat Status Pemrosesan MapReduce

Situs yang sebelumnya terkait dengan penyimpanan data (HDFS) untuk pemrosesan, ada GUI Web yang lain. Anda dapat mengaksesnya melalui browser Anda dengan mengetikkan alamat: [http:// 172.29.247.62:8088/cluster](http://172.29.247.62:8088/cluster)

The screenshot shows the Hadoop web interface at 172.29.247.62:8088/cluster. The 'All Applications' page displays various metrics and a table of applications.

Cluster Metrics	
Apps Submitted	0
Apps Pending	0
Apps Running	0
Apps Completed	0
Containers Running	0
Used Resources	<memory 0 B, vCores 0>
Total Resources	<memory 0 B, vCores 0>

Cluster Nodes Metrics	
Active Nodes	0
Decommissioning Nodes	0
Decommissioned Nodes	0
Lost Nodes	0

Scheduler Metrics	
Scheduler Type	Capacity Scheduler
Scheduling Resource Type	[memory-mb (unit-Mi), vcores]
Minimum Allocation	<memory 1024, vCores 1>
Maximum Allocation	<memory 8192, vCores 4>
Maximum Cluster Application Priority	0

ID	User	Name	Application Type	Application Tags	Queue	Application Priority	StartTime	LaunchTime	FinishTime	State	FinalStatus	Running Containers	Allocated CPU Vcores
No data available in table													

Showing 0 to 0 of 0 entries

- Melihat Versi Hadoop
 - Ketik : `hadoop version`

Hasil:

```
hadoopuser@hadoop-namenode:~$ hadoop version
Hadoop 3.4.1
Source code repository https://github.com/apache/hadoop.git -r 4d7825
309348956336b8f06a08322b78422849b1
Compiled by mthakur on 2024-10-09T14:57Z
Compiled on platform linux-x86_64
Compiled with protoc 3.23.4
From source with checksum 7292fe9dba5e2e44e3a9f763f3e3e680
This command was run using /usr/local/hadoop/share/hadoop/common/hadoop-common-3.4.1.jar
hadoopuser@hadoop-namenode:~$
```

- Membuat Folder
 - Ketik : `hadoop fs -mkdir /SIB-3E/18_SyavaApriliaP`

Hasil:

```
hadoopuser@hadoop-namenode:~$ hadoop fs -mkdir /SIB-3E/18_SyavaApriliaP
```

- Melihat Folder-folder yang ada
 - Ketik : `hadoop fs -ls /SIB-3E`

Hasil:

```
hadoopuser@hadoop-namenode:~$ hadoop fs -ls /SIB-3E
Found 9 items
drwxr-xr-x - hadoopuser supergroup 0 2025-03-11 04:49 /SIB-3E/03_AgtaFadjrinAminullah
drwxr-xr-x - hadoopuser supergroup 0 2025-03-11 04:57 /SIB-3E/04_AgungNugroho
drwxr-xr-x - hadoopuser supergroup 0 2025-03-11 04:48 /SIB-3E/05_Al baniRajataMalik
drwxr-xr-x - hadoopuser supergroup 0 2025-03-11 04:51 /SIB-3E/10_HertinNurhayati
drwxr-xr-x - hadoopuser supergroup 0 2025-03-11 04:47 /SIB-3E/11_HilmyZakyy
drwxr-xr-x - hadoopuser supergroup 0 2025-03-11 04:47 /SIB-3E/12_FikriSetiawan
drwxr-xr-x - hadoopuser supergroup 0 2025-03-11 04:51 /SIB-3E/16_RegaDaneWijayanta
drwxr-xr-x - hadoopuser supergroup 0 2025-03-11 04:57 /SIB-3E/18_SyavaApriliaP
drwxr-xr-x - hadoopuser supergroup 0 2025-03-11 04:46 /SIB-3E/19_ZanuarAldiSyahputra
```