LAPORAN KUIS 1

(BIG DATA)

Disusun Oleh:

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M. SAIFULLOH BAHROIN GANA PERKASA	NIM. 244107027015
MUHAMAD HAFIIDH AFANDI	NIM. 244107027018
AHMAD NANA MAINGGA	NIM. 244107027007

DOSEN PENGAMPU:

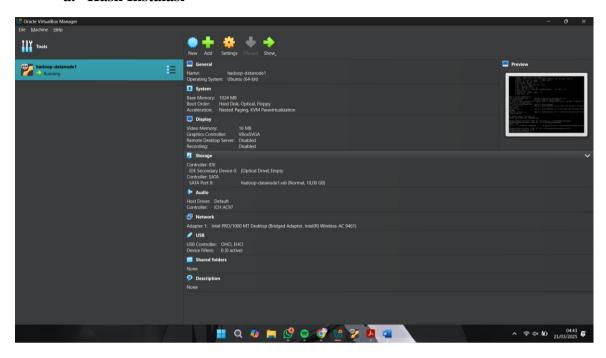
VIPKAS AL HADID FIRDAUS, S.T., M.T



D-IV TEKNIK INFORMATIKA
TEKNOLOGI INFORMASI
POLITEKNIK NEGERI MALANG
2024

1. DATANOTE 1 (MUHAMMAD HAFIDZ SETYAWAN)

a. Hasil Instalasi



b. Login Hadoop

```
Ubuntu 24.04.2 LTS hadoop-datanode1 tty1
hadoop-datanode1 login: hadoopuser
Password:
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-53-generic x86_64)
 * Documentation: https://help.ubuntu.com

* Management: https://landscape.canonical.com

* Support: https://ubuntu.com/pro
 System information as of Thu Mar 20 09:37:05 PM UTC 2025
  System load: 0.15
Usage of /: 61.0% of 9.74GB
Memory usage: 18%
                                             Processes: 97
Users logged in: 1
IPv4 address for enp0s3: 192.168.100.19
  Swap usage:
 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s just raised the bar for easy, resilient and secure K8s cluster deployment.
    https://ubuntu.com/engage/secure-kubernetes-at-the-edge
Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
The list of available updates is more than a week old.
To check for new updates run: sudo apt update
hadoopuser@hadoop-datanode1:~$
```

c. Alamat Ip: 192.168.100.19

```
Ubuntu 24.04.2 LTS hadoop-datanode1 tty1
hadoop-datanode1 login: hadoopuser
Password:
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-53-generic x86_64)
 * Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/pro
 System information as of Thu Mar 20 09:37:05 PM UTC 2025
  System load: 0.15
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                                          Processes: 97
Users logged in: 1
IPv4 address for enp0s3: 192.168.100.19
  Memory usage: 18%
  Swap usage:
                   0%
 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s just raised the bar for easy, resilient and secure K8s cluster deployment.
   https://ubuntu.com/engage/secure-kubernetes-at-the-edge
Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
The list of available updates is more than a week old.
To check for new updates run: sudo apt update
hadoopuser@hadoop-datanode1:~$
```

d. Setting /Ets/Host

```
GNU nano 7.2

127.0.0.1 localhost

# The following lines are desirable for IPv6 capable hosts
::1 ip6-localhost ip6-locaphack
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::1 ip6-allnoders

# Hadoop cluster nodes
192.168.100.11 hadoop-namenode
192.168.100.19 hadoop-datanode1
192.168.100.8 hadoop-datanode2
192.168.1000.8 hadoop-datanode3
```

e. Menghubungkan Ke Cluster Namenode

```
i:1 ip6-localhost ip6-loopback
fe0::0 ip6-mcastprefix
ff00::0 ip6-mcastprefix
ff00::1 ip6-allnodes
ff02::2 ip6-allnodes
ff02::2 ip6-allnodes
192:168.100.19 hadoop-namenode
192:168.100.19 hadoop-datanode1
192:168.100.24 hadoop-datanode2
192:168.100.8 hadoop-datanode3
```

f. Membuat File Local

```
hadoopuser@hadoop-datanode1:~$ ls
Hafidz.tx@
hadoopuser@hadoop-datanode1:~$ cat Hafidz.txt
Muhammad Hafidz Setyawan_TI 4k RPL
hadoopuser@hadoop-datanode1:~$
```

g. Membuat Direktori Pada Cluster

h. Upload File Pada Direktori

```
[-rmdir [--ignore-fail-on-non-empty] <dir> ...]
[-setfacl [-R] [{-b|-k} {-m|-x <acl_spec>} <path>]|[--set <acl_spec> <path>]]
[-setfattr {-n name [-v value] | -x name} <path>]
[-setrep [-R] [-w] <rep> <path> ...]
[-stat [format] <path> ...]
[-tail [-f] [-s <sleep interval>] <file>]
[-test - [defswrz] <path>]
[-test [-ignoreCrc] <src> ...]
[-touch [-a] [-m] [-t TIMESTAMP (yyyyMMdd:HHmmss) ] [-c] <path> ...]
[-touchz <path> ...]
                [-touchz <path> ...]
[-truncate [-w] <length> <path> ...]
                [-usage [cmd ...]]
Generic options supported are:
-conf <configuration file> specify an application configuration file
-D <property=value> define a value for a given property
-fs <file://|hdfs://namenode:port> specify default filesystem URL to use, overrides 'fs.defaultFS'
-TS <TILE:///|nurs://hammende:port/ specify default filesgs
property from configurations.

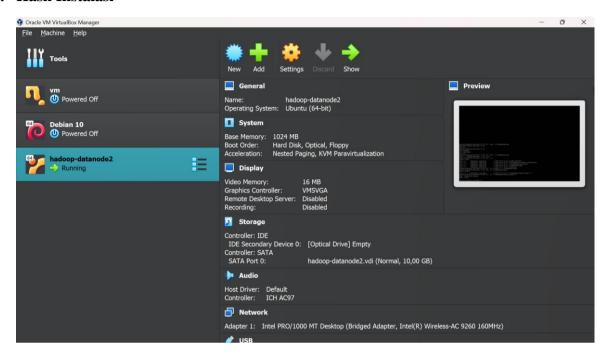
-jt <local|resourcemanager:port/ specify a ResourceManager

-files <file1,.../ specify a comma-separated

duce cluster
                                                                 specify a comma-separated list of files to be copied to the map re
 -libjars <jar1,...>
                                                                 specify a comma-separated list of jar files to be included in the
classpath
 -archives <archive1,...>
                                                                 specify a comma-separated list of archives to be unarchived on the
  compute machines
The general command line syntax is:
command [genericOptions] [commandOptions]
hadoopuser@hadoop-datanode1:~$ hdfs dfs -put Hafidz.txt /14_MuhammadHafidzSetyawan/
hadoopuser@hadoop-datanode1:~$ hdfs dfs -ls /14_MuhammadHafidzSetyawan/
Found 1 items
-rw-r--r--
                        3 hadoopuser supergroup
                                                                                     35 2025-03-20 21:32 /14_MuhammadHafidzSetyawan/Hafidz.t
hadoopuser@hadoop-datanode1:~$ hdfs dfs -cat /14_MuhammadHafidzSetyawan/Haf<u>idz.tx</u>t
Muhammad Hafidz Setyawan_TI 4k RPL
hadoopuser@hadoop-datanode1:~$ _
```

2. DATANOTE 2 (AHMAD NANA MAINGGA)

a. Hasil Instalasi

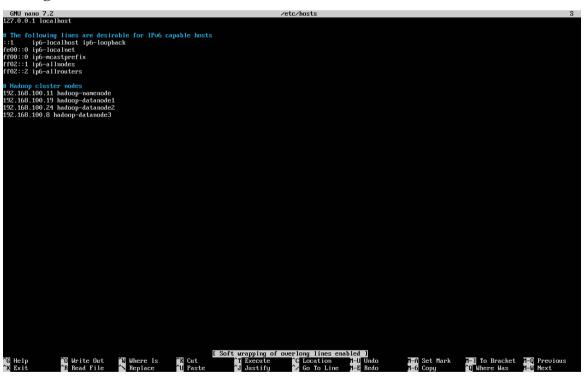


b. Login Hadoop



c. Alamat Ip: 192.168.100.24

d. Setting /Ets/Host



e. Menghubungkan Ke Cluster Namenode

```
Deutit 24.04.2 LTS hadoop-datamode2 tty1
hadoop-datamode2 login: hadoopuser
Passanod4
McLone to Ubuntu 24.04.2 LTS (GMUL/inx 6.8.0-53-generic x86.64)

- Documentation: https://haly.ubuntu.com
- Panagement: https://haly.ubuntu.com
- Panagement: https://haly.ubuntu.com
- Panagement: https://haly.ubuntu.com/pro

System information as of The Har 26 09:56-41 PH UTC 2025

System load: 0.24

Frocesses: 96

If Value load: 0.24

System load: 0.24

System load: 0.24

System load: 0.24

System load: 0.24

Frocesses: 96

If Value load: 0.24

System load: 0.24

System load: 0.24

System load: 0.24

Frocesses: 96

If Value load: 0.24

System load: 0.24

System load: 0.24

Frocesses: 96

If Value load: 0.24

System load: 0.24

System load: 0.24

Frocesses: 96

If Value load: 0.24

System load: 0.24

Frocesses: 96

If Value load: 0.24

System load: 0.24

System load: 0.24

Frocesses: 96

If Value load: 0.24

System load: 0.24

Frocesses: 96

If Value load: 0.24

Frocesses: 96

Frocesses: 96

Frocesses: 96

Frocesses: 96

Frocesses: 96

Frocesses: 96
```

f. Membuat File Local

```
hadoopuser@hadoop-datanode2:"$ Is
moingas.at
Hadoopuser@hadoop-datanode2:"$ cet moingga.txt
Hadoopuser@hadoop-datanode2:"$ _
Hadoopuser@hadoop-datanode2:"$ _
```

g. Membuat Direktori Pada Cluster

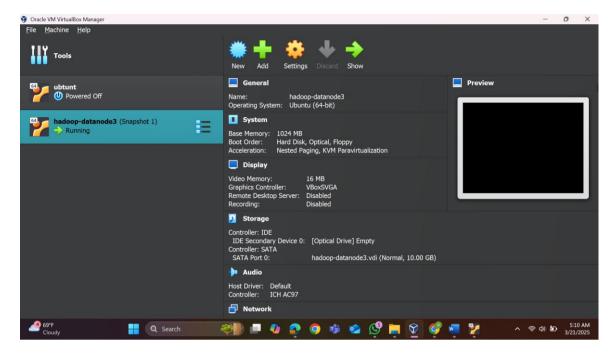
```
hadoopuser@hadoop-datanode2:"$ hdfs dfs -mkdir /l_AhmadNanaMaingga
hadoopuser@hadoop-datanode2:"$ jps
1091 Jps
1092 Jps
1093 Jps
1094 Jps
1094 Jps
1095 Jps
1095 Jps
1096 Jps
```

h. Upload File Pada Direktori

```
hadoopuser@hadoop-datanode2:"$ hdfs dfs -mkdir /1_AhmadNanaMeingga
hadoopuser@hadoop-datanode2:"$ jps
loe! Jps
radoopuse@hadoop-datanode2:"$ jps
radoopuse@hadoop-datanode2:"$ hdfs dfs -mkdir /1_AhmadNanaMeingga
loe! Jps
```

3. DATANOTE 3 (MUHAMAD HAFIIDH AFANDI)

a. Hasil Instalasi



b. Login Hadoop

```
Ubuntu 24.04.2 LTS hadoop-datanode3 tty1
hadoop-datanode3 login:
```

c. Alamat Ip: 192.168.100.8

d. Setting /Etc/Host

```
### Hadoop cluster nodes
192.168.100.11 hadoop-namenode
192.168.100.24 hadoop-datanode2
192.168.100.8 hadoop-datanode3
192.168.100.8 hadoop-datanode3
192.168.100.8 hadoop-datanode3
192.168.100.8 hadoop-datanode3
192.168.100.8 hadoop-datanode3:

192.168.100.8 hadoop-datanode3:

192.168.100.8 hadoop-datanode3:

193.1001 Jps
194.100.8 hadoopser@hadoop-datanode3:

194.100.8 hadoopser@hadoop-datanode3:

195.100.8 hadoopser@hadoopser@hadoop-datanode3:

195.100.8 hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@hadoopser@h
```

e. Menghubungkan Ke Cluster Namenode

```
Ubuntu 24.04.2 LTS hadoop-datanode3 tty6
hadoop-datanode3 login: hadoopuser
Password:
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-53-generic x86_64)
 * Documentation: https://help.ubuntu.com

* Management: https://landscape.canonical.com

* Support: https://ubuntu.com/pro
 System information as of Thu Mar 20 10:19:00 PM UTC 2025
  System load: 0.0
Usage of /: 68.3% of 9.74GB
Memory usage: 17%
                                                 Processes:
                                                                                     95
                                                Users logged in:
                                                 IPv4 address for enp0s3: 192.168.100.8
  Swap usage:
                     0%
 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s just raised the bar for easy, resilient and secure K8s cluster deployment.
    https://ubuntu.com/engage/secure-kubernetes-at-the-edge
Expanded Security Maintenance for Applications is not enabled.
83 updates can be applied immediately.
35 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
hadoopuser@hadoop-datanode3:~$
```

f. Membuat File Local

```
hadoopuser@hadoop-datanode3:~$ ls
Hafiidh.txt
hadoopuser@hadoop-datanode3:~$ cat Hafiidh.txt
Nama : Muhamad Hafiidh Afandi
Kelas ; TI 4K-RPL
hadoopuser@hadoop-datanode3:~$ _
```

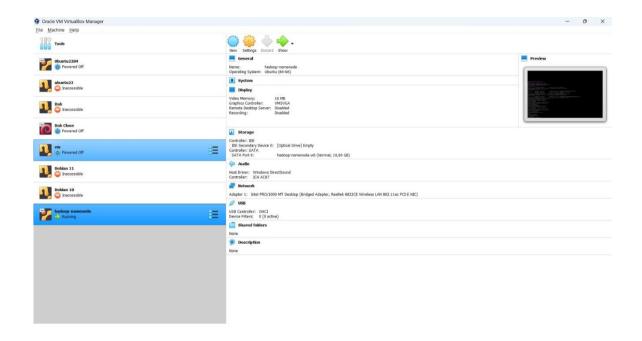
```
hadoopuser@hadoop-datanode3:~$ hdfs dfs -mkdir /12_MHafiidhAfandi
hadoopuser@hadoop-datanode3:~$ jps
1001 Jps
hadoopuser@hadoop-datanode3:~$ hdfs dfs -mkdir /12_MHafiidhAfandi
mkdir: `/12_MHafiidhAfandi': File exists
hadoopuser@hadoop-datanode3:~$ jps
1050 Jps
hadoopuser@hadoop-datanode3:~$ jps
hadoopuser@hadoop-datanode3:~$ jps
2006 Jps
1768 DataNode
1912 NodeManager
hadoopuser@hadoop-datanode3:~$ hdfs dfs -mkdir /12_MHafiidhAfandi
mkdir: `/12_MHafiidhAfandi': File exists
hadoopuser@hadoop-datanode3:~$ ls
Hafiidh.txt
hadoopuser@hadoop-datanode3:~$ hdfs dfs -ls /
 ound 5 items
                                                                  0 2025-03-20 21:32 /12_MHafiidhAfandi
0 2025-03-20 21:32 /13_MuhamadSaifullohBahroinGanaPerk
drwxr-xr-x
                 - hadoopuser supergroup
                  - hadoopuser supergroup
drwxr-xr-x
asa
drwxr-xr-x
                  - hadoopuser supergroup
                                                                  0 2025-03-20 21:32 /14_MuhammadHafidzSetyawan
0 2025-03-20 21:32 /1_AhmadNanaMaingga
                 - hadoopuser supergroup
- hadoopuser supergroup
drwxr-xr-x
                                                                  0 2025-02-19 16:50 /yunhasnawa
drwxr-xr-x
hadoopuser@hadoop-datanode3:~$ hdfs dfs -put Hafiidh.txt
put: `.': No such file or directory: `hdfs://hadoop-namenode:9000/user/hadoopuser'
^Chadoopuser@hadoop-datanode3:~$ hdfs dfs -put Hafiidh.txt /12_MHafiidhAfandi
hadoopuser@hadoop-datanode3:~$ hdfs dfs -put Hafiidh.txt /12_MHafiidhAfandi
put: `/12_MHafiidhAfandi/Hafiidh.txt': File exists
hadoopuser@hadoop-datanode3:~$ hdfs dfs -ls /12_MHafiidhAfandi/
                  3 hadoopuser supergroup
                                                                 48 2025-03-20 21:40 /12_MHafiidhAfandi/Hafiidh.txt
hadoopuser@hadoop-datanode3:~$ _
```

h. Upload File Pada Direktori

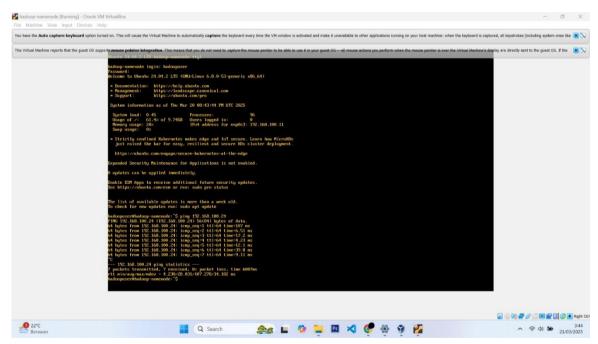
```
hadoopuser@hadoop-datanode3:~$ hdfs dfs -mkdir /12_MHafiidhAfandi
hadoopuser@hadoop-datanode3:~$ jps
hadoopuser@hadoop-datanode3:~$ hdfs dfs -mkdir /12_MHafiidhAfandi
mkdir: `/12_MHafiidhAfandi': File exists
hadoopuser@hadoop-datanode3:~$ jps
1050 Jps
hadoopuser@hadoop-datanode3:~$ jps
1060 Jps
hadoopuser@hadoop-datanode3:~$ jps
2006 Jps
1768 DataNode
1912 NodeManager
hadoopuser@hadoop-datanode3:~$ hdfs dfs -mkdir /12_MHafiidhAfandi
mkdir: `/12_MHafiidhAfandi': File exists
hadoopuser@hadoop-datanode3:~$ ls
Hafiidh.txt
hadoopuser@hadoop-datanode3:~$ hdfs dfs -ls /
Found 5 items
drwxr-xr-x - hadoopuser supergroup
drwxr-xr-x - hadoopuser supergroup
                                                                                0 2025-03-20 21:32 /12_MHafiidhAfandi
0 2025-03-20 21:32 /13_MuhamadSaifullohBahroinGanaPerk
asa
                                                                                0 2025-03-20 21:32 /14_MuhammadHafidzSetyawan
0 2025-03-20 21:32 /1_AhmadNanaMaingga
drwxr-xr-x
                     - hadoopuser supergroup
drwxr-xr-x - hadoopuser supergroup 0 2025-03-20 21:32 /14_hamadNanaMaingy
drwxr-xr-x - hadoopuser supergroup 0 2025-02-19 16:50 /yunhasnawa
hadoopuser@hadoop-datanode3:~$ hdfs dfs -put Hafiidh.txt
put: `.': No such file or directory: `hdfs://hadoop-namenode:9000/user/hadoopuser'
^Chadoopuser@hadoop-datanode3:~$ hdfs dfs -put Hafiidh.txt /12_MHafiidhAfandi
hadoopuser@hadoop-datanode3:~$ hdfs dfs -put Hafiidh.txt /12_MHafiidhAfandi
put: `/12_MHafiidhAfandi/Hafiidh.txt': File exists
hadoopuser@hadoop-datanode3:~$ hdfs dfs -ls /12_MHafiidhAfandi/
 ound 1 items
-cw-r--r-- 3 hadoopuser supergroup 48 2025-03-20 21:40 /12_MHafiidhAfandi/Hafiidh.txt
hadoopuser@hadoop-datanode3:~$ hdfs dfs -cat /12_MHafiidhAfandi/Hafiidh.txt
Nama : Muhamad Hafiidh Afandi
Kelas ; TI 4K-RPL
nadoopuser@hadoop-datanode3:~$ _
```

4. NAMENOTE 1 (M. SAIFULLOH BAHROIN GANA PERKASA)

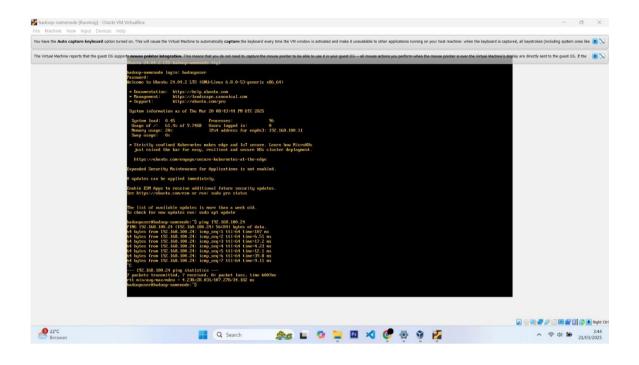
a. Hasil Instalasi



b. Login Hadoop



c. Alamat Ip: 192.168.100.11



d. Setting /Ets/Host

```
The following lines are desirable for TPvG capable hosts

"The following lines are desirable for TPvG capable hosts

"The following lines are desirable for TPvG capable hosts

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"The following lines are desirable for TPvG capable hosts

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"The following lines are desirable for TPvG capable hosts

"The following lines are desirable for TPvG capable hosts

"The following lines are desirable for TPvG capable hosts

"The following lines are desirable for TP
```

e. Menghubungkan Ke Cluster Namenode

```
haddopuser@haddop-namenode:"$ start-dfs.sh
Starting namenodes on (haddop-namenode)
Starting secondary namenodes (haddop-namenode)
Starting detamodes
Starting secondary namenodes (haddop-namenode)
Starting secondary namenodes (haddop-namenode)
Starting secondary namenodes (haddop-namenode)
Starting reconder namenodes (haddop-namenode)
Starting necondernamenodes (haddop-namenode)
Starting necondernamenodes (haddop-namenode)
Starting necondernamenodes (haddop-namenode)
Starting namenodes (haddop-namenode)
Addoption (haddop-namenode)
Starting namenodes (haddop-namenode)
```

f. Membuat File Local

g. Membuat Direktori Pada Cluster

h. Upload File Pada Direktori