LAPORAN KUIS 1

(BIG DATA)

Disusun Oleh :

MUHAMMAD HAFIDZ SETYAWAN	**NIM. 244107027013**
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

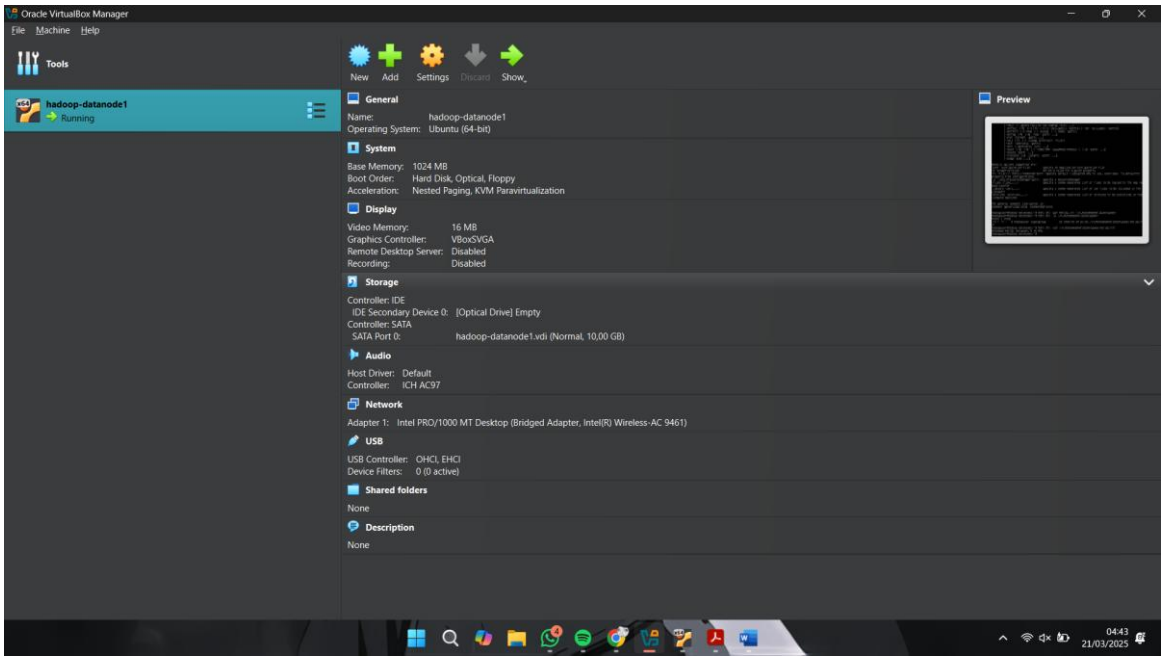
TEKNOLOGI INFORMASI

POLITEKNIK NEGERI MALANG

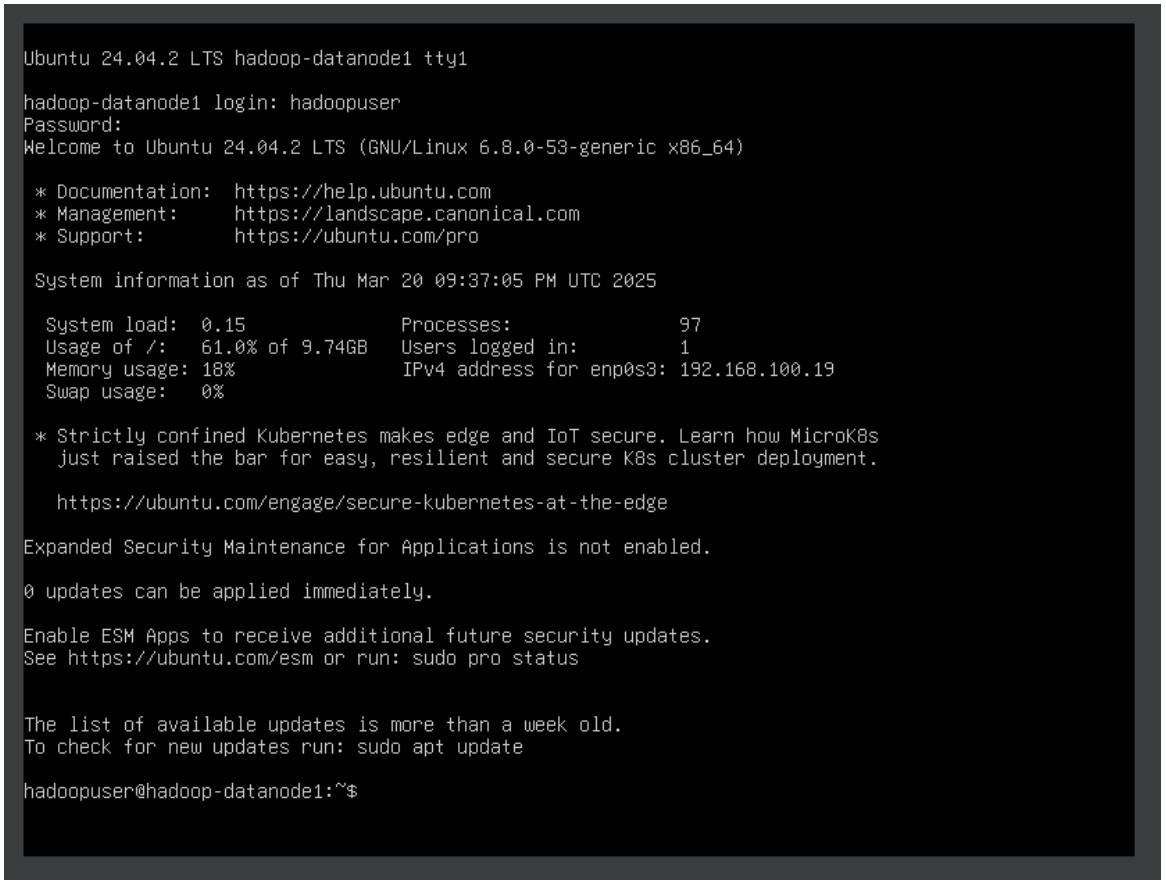
2024

1. DATANOTE 1 (MUHAMMAD HAFIDZ SETYAWAN)

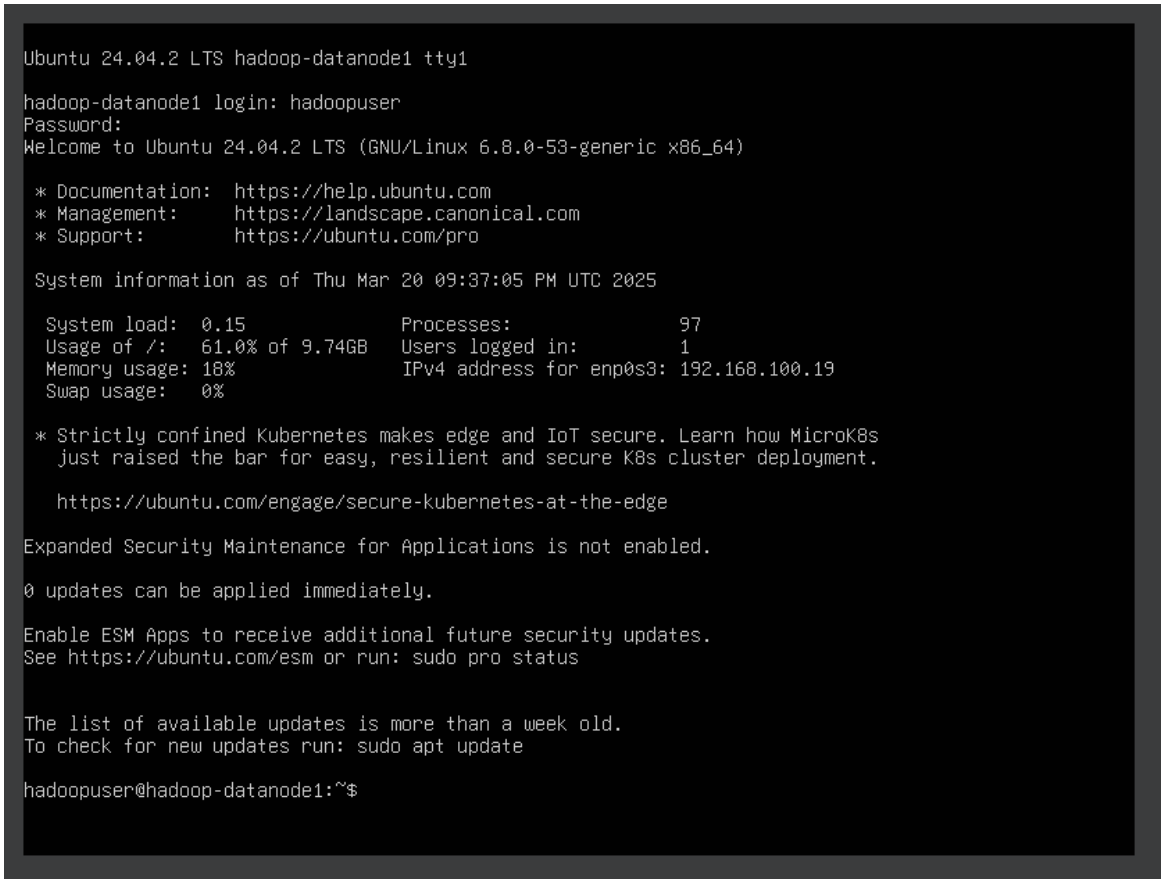
a. Hasil Instalasi



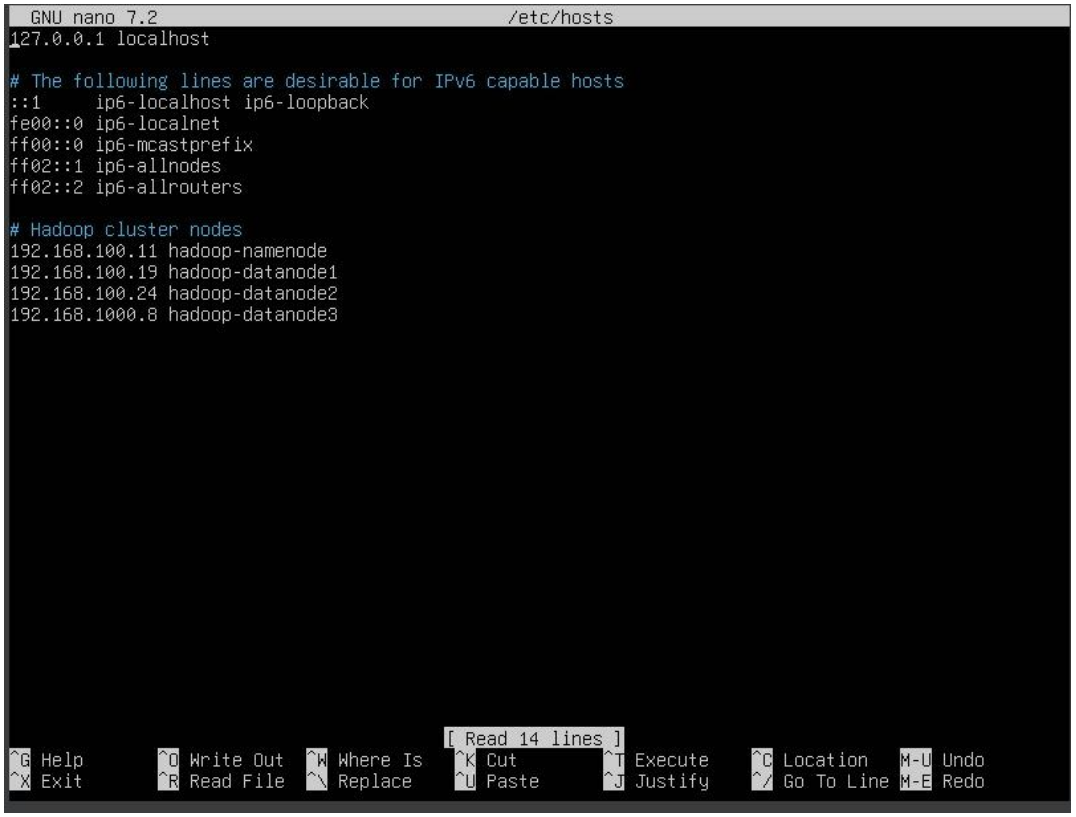
b. Login Hadoop



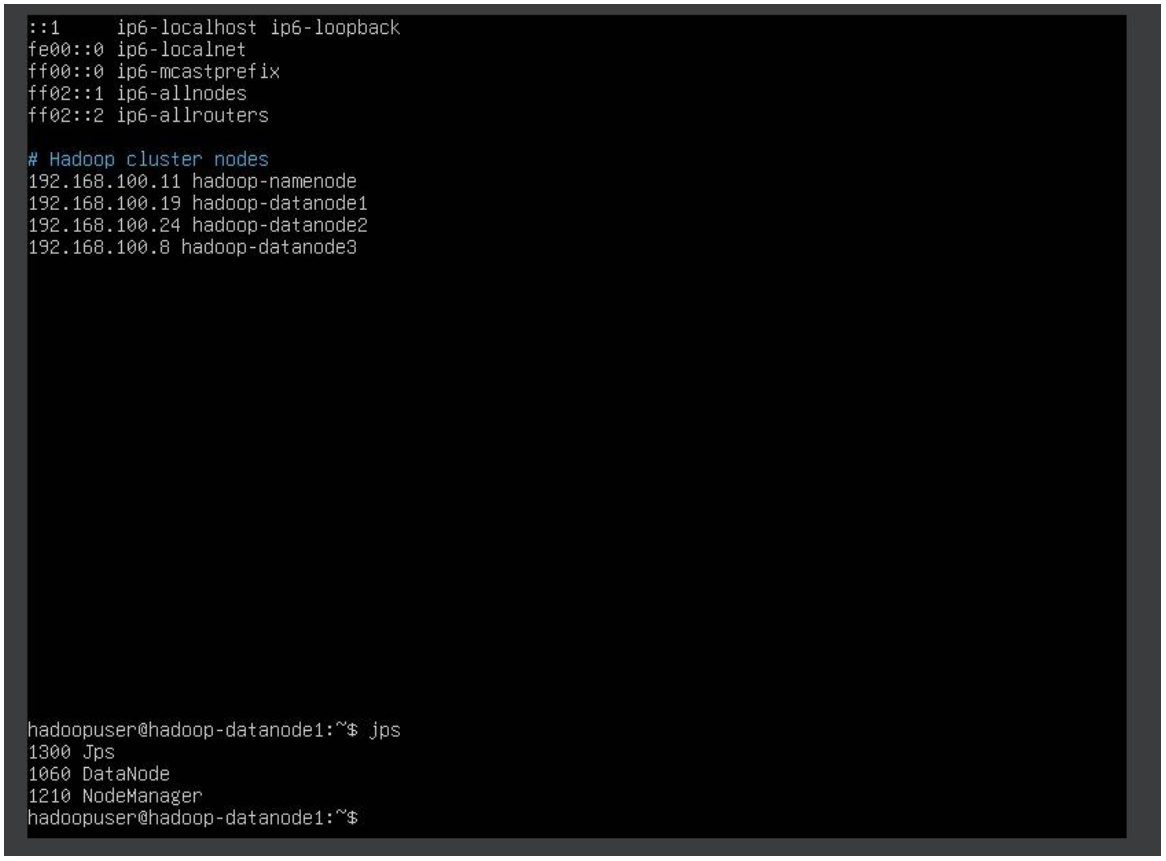
c. Alamat Ip : 192.168.100.19



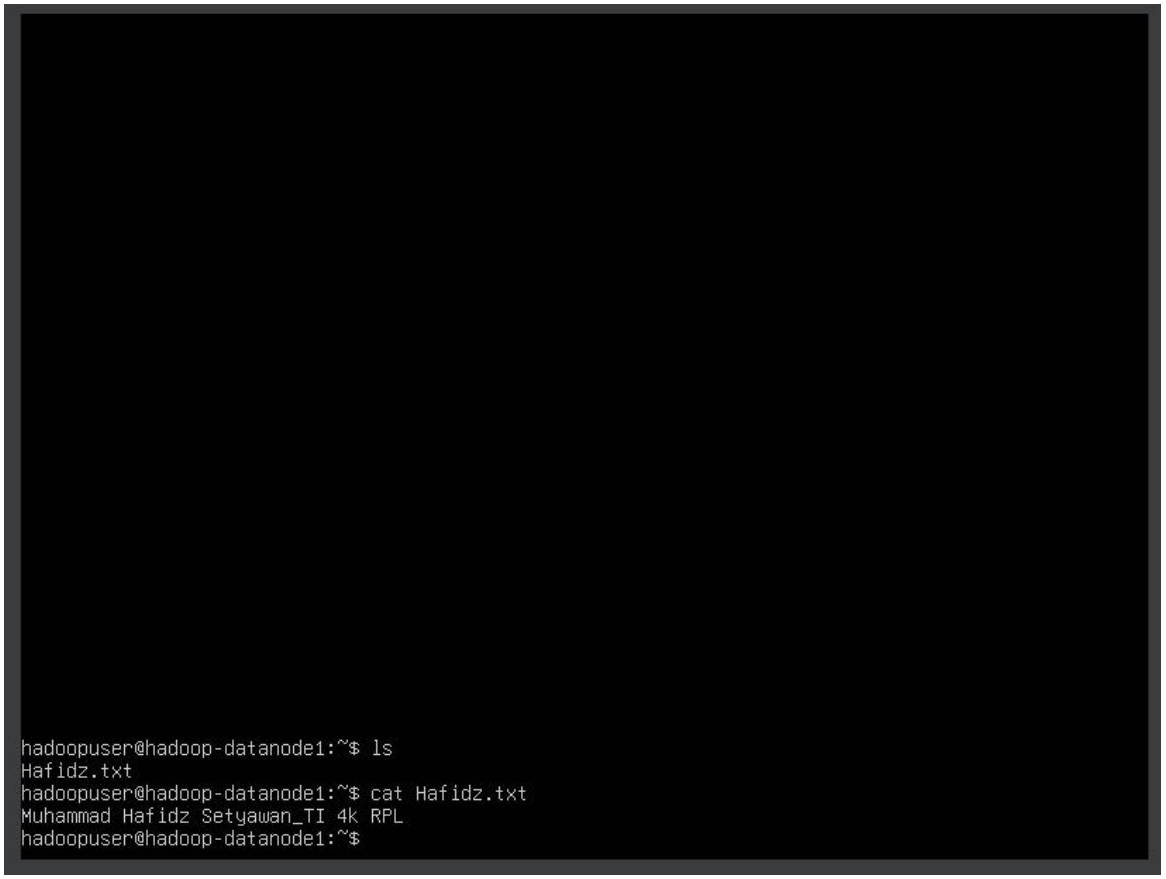
d. Setting /Ets/Host



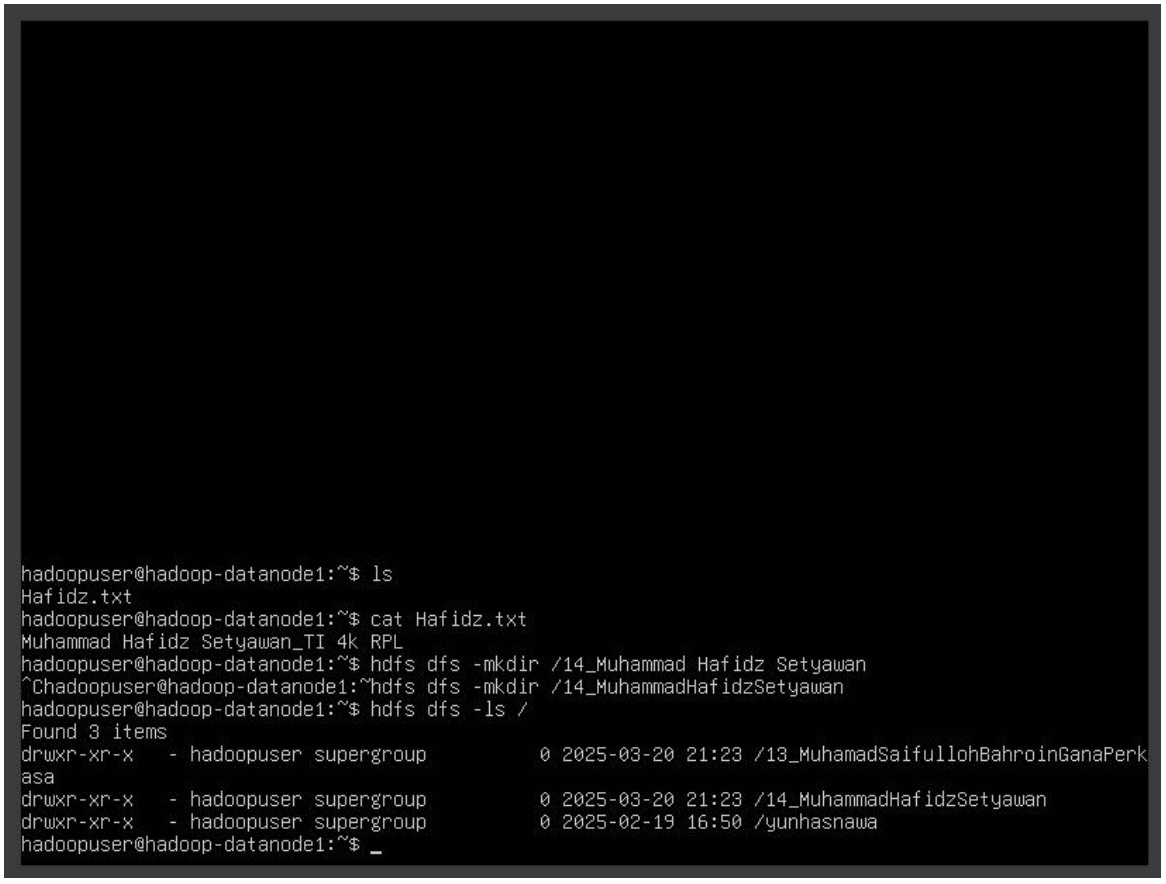
e. Menghubungkan Ke Cluster Namenode



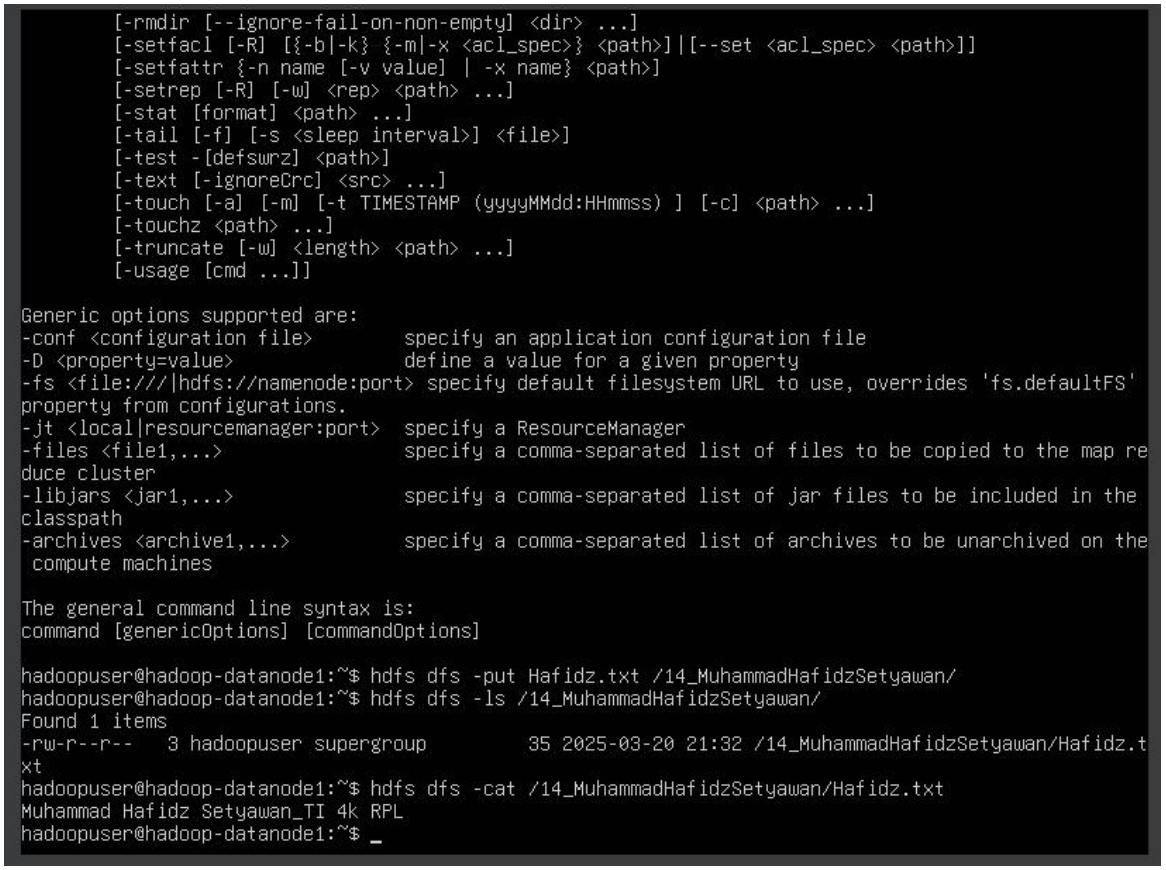
f. Membuat File Local



g. Membuat Direktori Pada Cluster

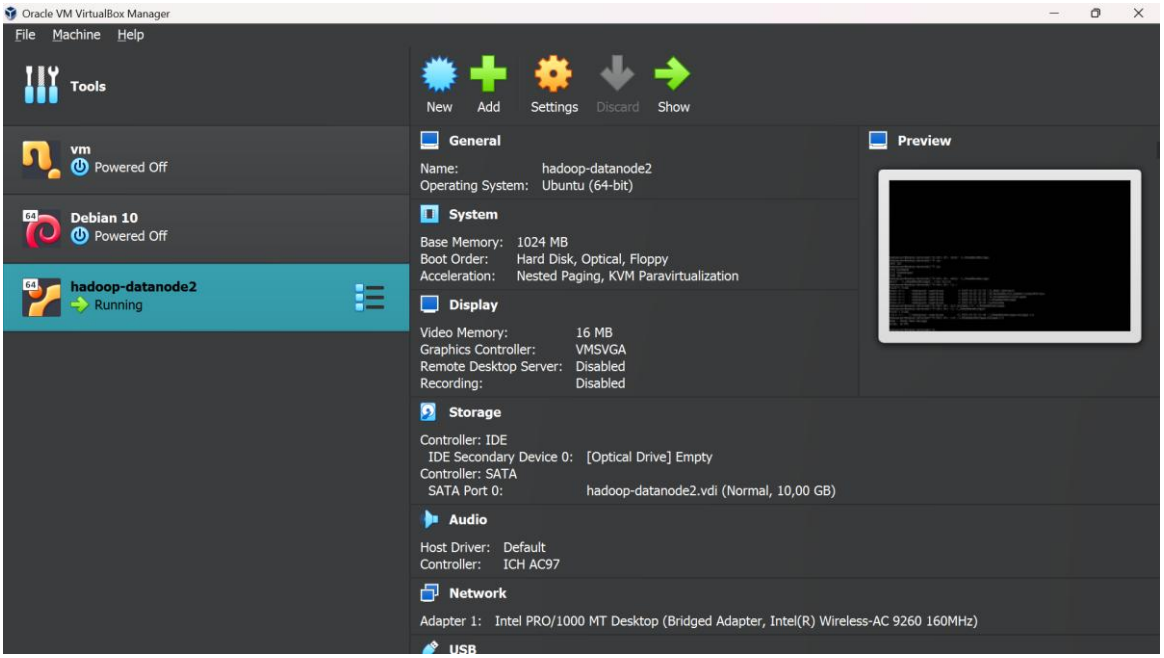


h. Upload File Pada Direktori



2. DATANOTE 2 (AHMAD NANA MAINGGA)

a. Hasil Instalasi



b. Login Hadoop

c. Alamat Ip : 192.168.100.24

```
hadoopuser@hadoop-datanode2:~$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
       valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:c9:55:36 brd ff:ff:ff:ff:ff:ff
    inet 192.168.100.24/24 metric 100 brd 192.168.100.255 scope global dynamic enp0s3
       valid_lft 85289sec preferred_lft 85289sec
    inet6 fe80::a00:27ff:fec9:5536/64 scope link
       valid_lft forever preferred_lft forever
hadoopuser@hadoop-datanode2:~$
```

d. Setting /Ets/Host

```
  GNU nano 7.2                                  /etc/hosts                                  S
127.0.0.1 localhost

# The following lines are desirable for IPv6 capable hosts
::1     ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters

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

                                [ Soft wrapping of overlong lines enabled ]
^G Help      ^O Write Out  ^W Where Is  ^K Cut       ^I Execute   ^C Location  M-U Undo    M-A Set Mark  M-] To Bracket  M-Q Previous
^X Exit      ^R Read File  ^\ Replace   ^U Paste     ^J Justify   ^/ Go To Line M-E Redo    M-6 Copy      ^Q Where Was    M-W Next
```

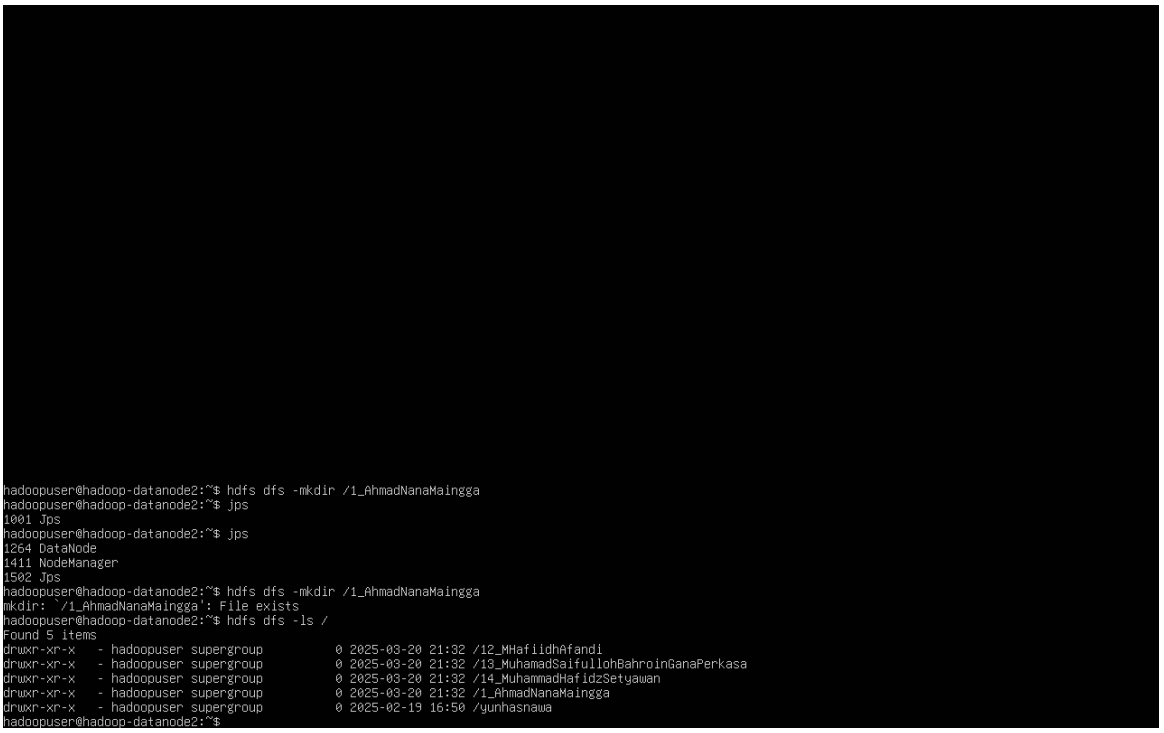
e. Menghubungkan Ke Cluster Namenode

```
Ubuntu 24.04.2 LTS hadoop-datanode2 tty1

hadoop-datanode2 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 09:56:41 PM UTC 2025

  System load:  0.24              Processes:               96
  Usage of /:   60.8% of 9.74GB   Users logged in:         0
  Memory usage: 16%               IPv4 address for enp0s3: 192.168.100.24
  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-datanode2:~$ _
```

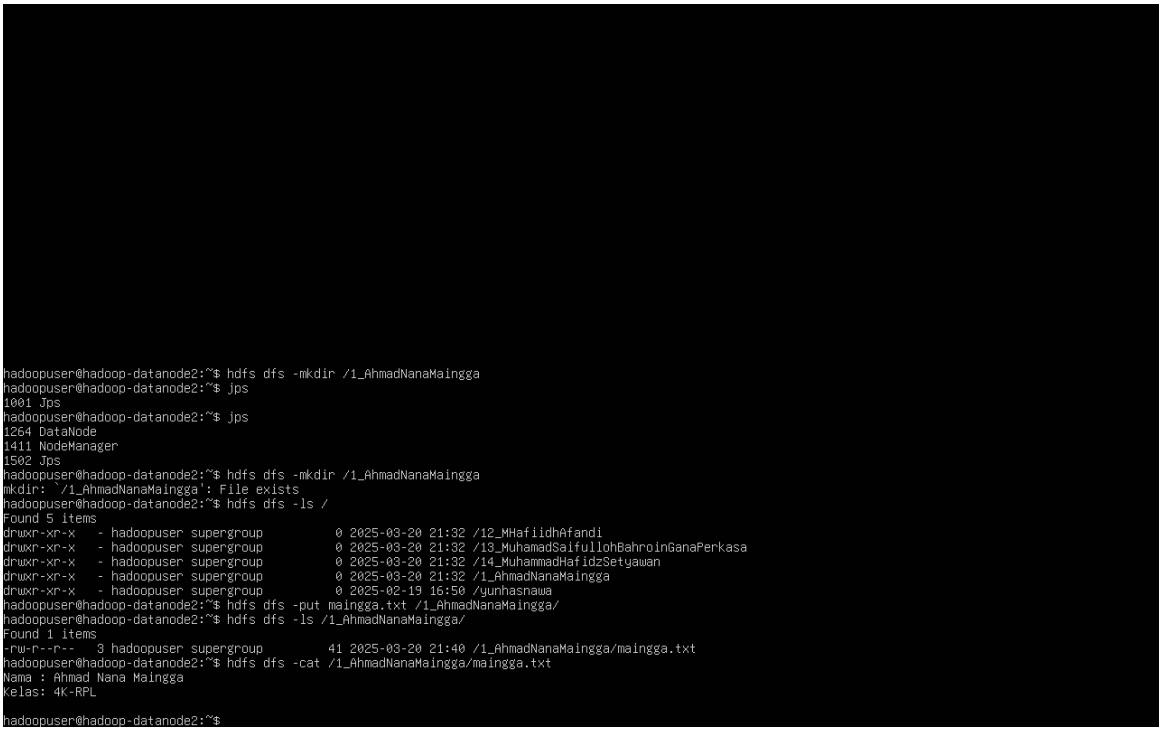
f. Membuat File Local

```
hadoopuser@hadoop-datanode2:~$ ls
maingga.txt
hadoopuser@hadoop-datanode2:~$ cat maingga.txt
Nama : Ahmad Nana Maingga
Kelas: 4K-RPL

hadoopuser@hadoop-datanode2:~$ _
```

g. Membuat Direktori Pada Cluster

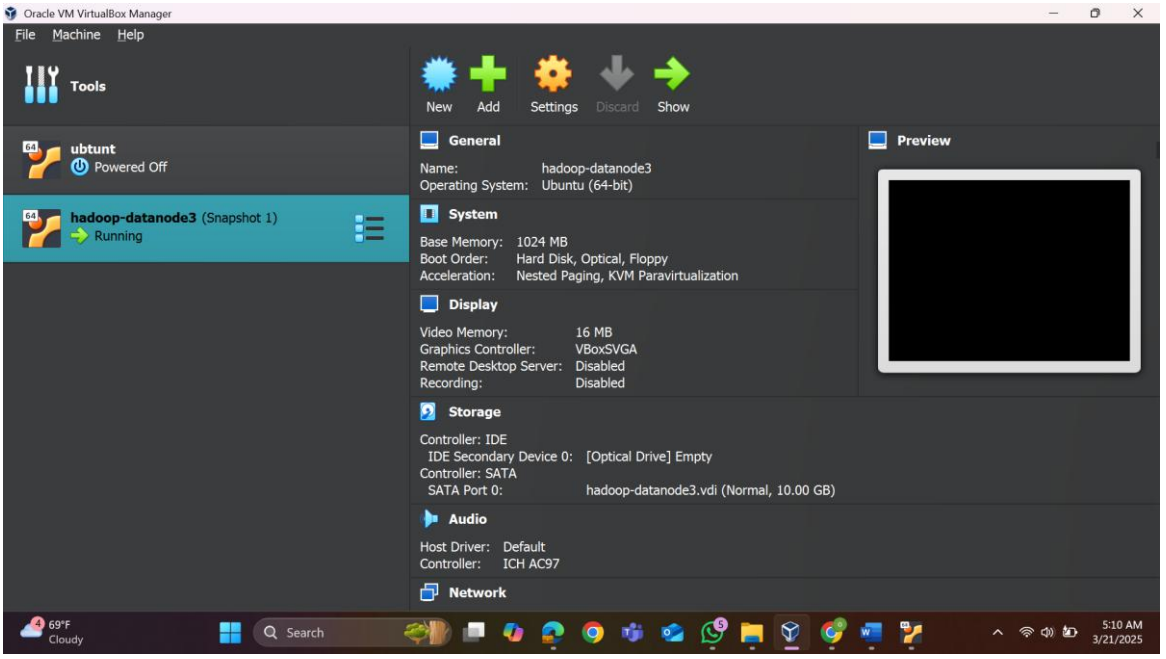


h. Upload File Pada Direktori

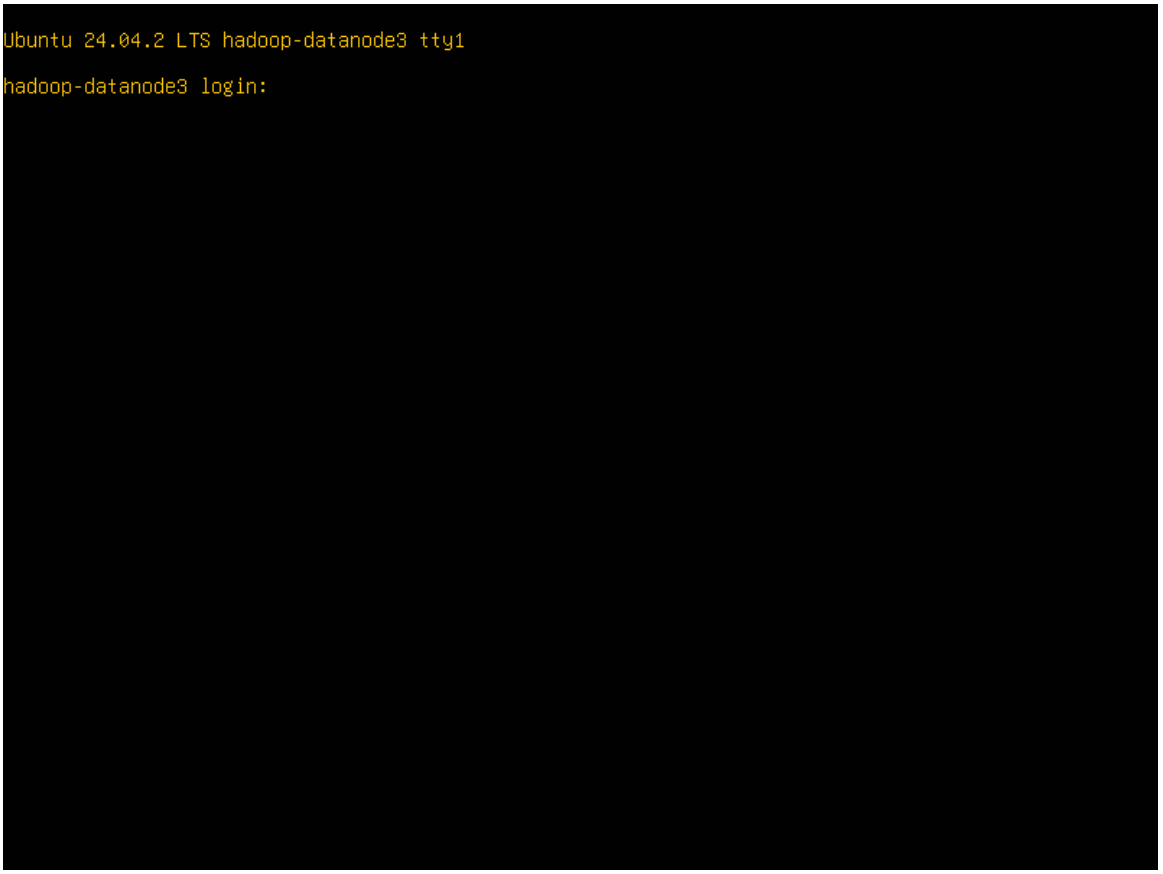


3. DATANOTE 3 (MUHAMAD HAFIIDH AFANDI)

a. Hasil Instalasi



b. Login Hadoop



c. Alamat Ip : 192.168.100.8

```
 System information as of Thu Mar 20 10:14:46 PM UTC 2025

  System load:  0.13              Processes:               94
  Usage of /:   68.2% of 9.74GB   Users logged in:         0
  Memory usage: 16%               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:~$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
       valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 100
0
    link/ether 08:00:27:a6:58:94 brd ff:ff:ff:ff:ff:ff
    inet 192.168.100.8/24 metric 100 brd 192.168.100.255 scope global dynamic enp0s3
       valid_lft 86226sec preferred_lft 86226sec
    inet6 fe80::a00:27ff:fea6:5894/64 scope link
       valid_lft forever preferred_lft forever
hadoopuser@hadoop-datanode3:~$
```

d. Setting /Etc/Host

```
ff02::2 ip6-allrouters

# Hadoop cluster nodes
192.168.100.11 hadoop-namenode
192.168.100.19 hadoop-datanode1
192.168.100.24 hadoop-datanode2
192.168.100.8 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
1060 Jps
hadoopuser@hadoop-datanode3:~$
```

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               Processes:               95
  Usage of /:   68.3% of 9.74GB   Users logged in:         1
  Memory usage: 17%               IPv4 address for enp0s3: 192.168.100.8
  Swap usage:   0%

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
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   https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

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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:~$ _
```

g. Membuat Direktori Pada Cluster

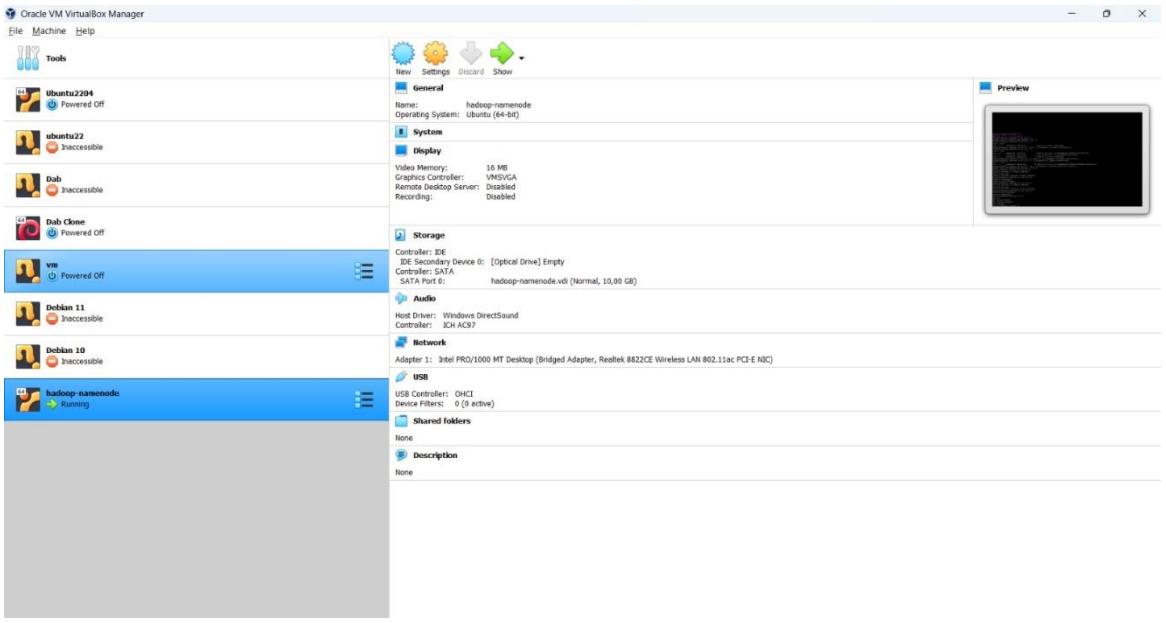
```
hadoopuser@hadoop-datanode3:~$ hdfs dfs -mkdir /12_MHafiidhAfandi
hadoopuser@hadoop-datanode3:~$ jps
1001 Jps
hadoopuser@hadoop-datanode3:~$ hdfs dfs -mkdir /12_MHafiidhAfandi
mkdir: `/12_MHafiidhAfandi': File exists
hadoopuser@hadoop-datanode3:~$ jps
1050 Jps
hadoopuser@hadoop-datanode3:~$ jps
1060 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          0 2025-03-20 21:32 /12_MHafiidhAfandi
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-20 21:32 /13_MuhamadSaifullohBahroinGanaPerk
asa
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-20 21:32 /14_MuhammadHafidzSetyawan
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-20 21:32 /1_AhmadNanaMaingga
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/
Found 1 items
-rw-r--r--   3 hadoopuser supergroup         48 2025-03-20 21:40 /12_MHafiidhAfandi/Hafiidh.txt
hadoopuser@hadoop-datanode3:~$ _
```

h. Upload File Pada Direktori

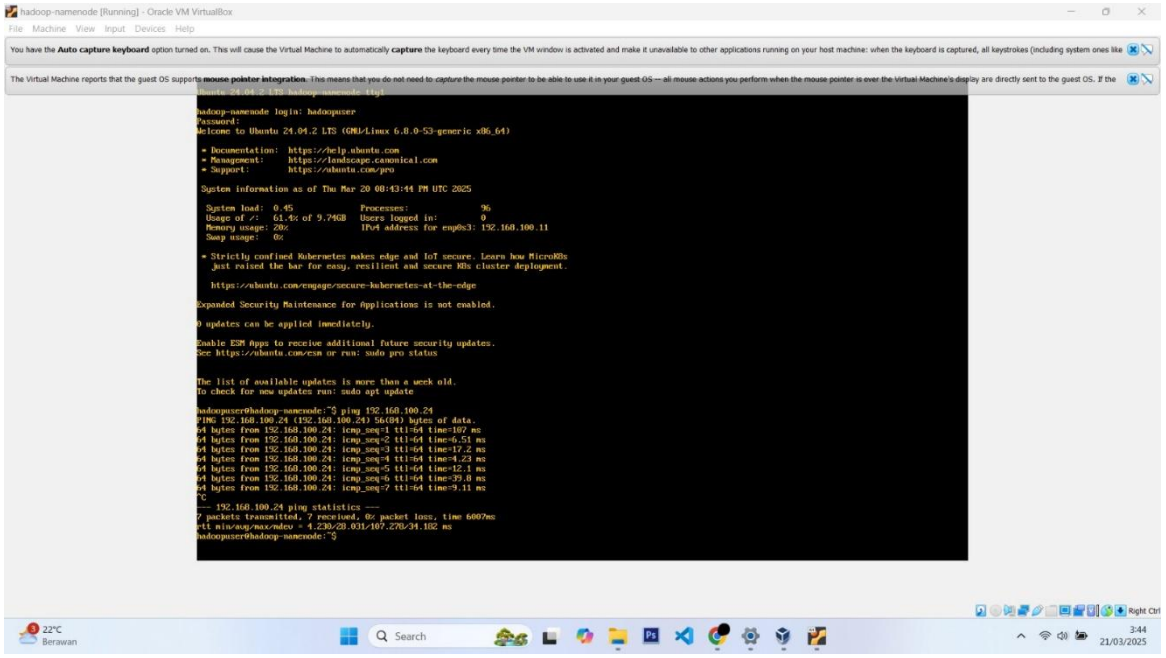
```
hadoopuser@hadoop-datanode3:~$ hdfs dfs -mkdir /12_MHafiidhAfandi
hadoopuser@hadoop-datanode3:~$ jps
1001 Jps
hadoopuser@hadoop-datanode3:~$ hdfs dfs -mkdir /12_MHafiidhAfandi
mkdir: `/12_MHafiidhAfandi': File exists
hadoopuser@hadoop-datanode3:~$ jps
1050 Jps
hadoopuser@hadoop-datanode3:~$ jps
1060 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          0 2025-03-20 21:32 /12_MHafiidhAfandi
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-20 21:32 /13_MuhamadSaifullohBahroinGanaPerk
asa
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-20 21:32 /14_MuhammadHafidzSetyawan
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-20 21:32 /1_AhmadNanaMaingga
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/
Found 1 items
-rw-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
hadoopuser@hadoop-datanode3:~$ _
```

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

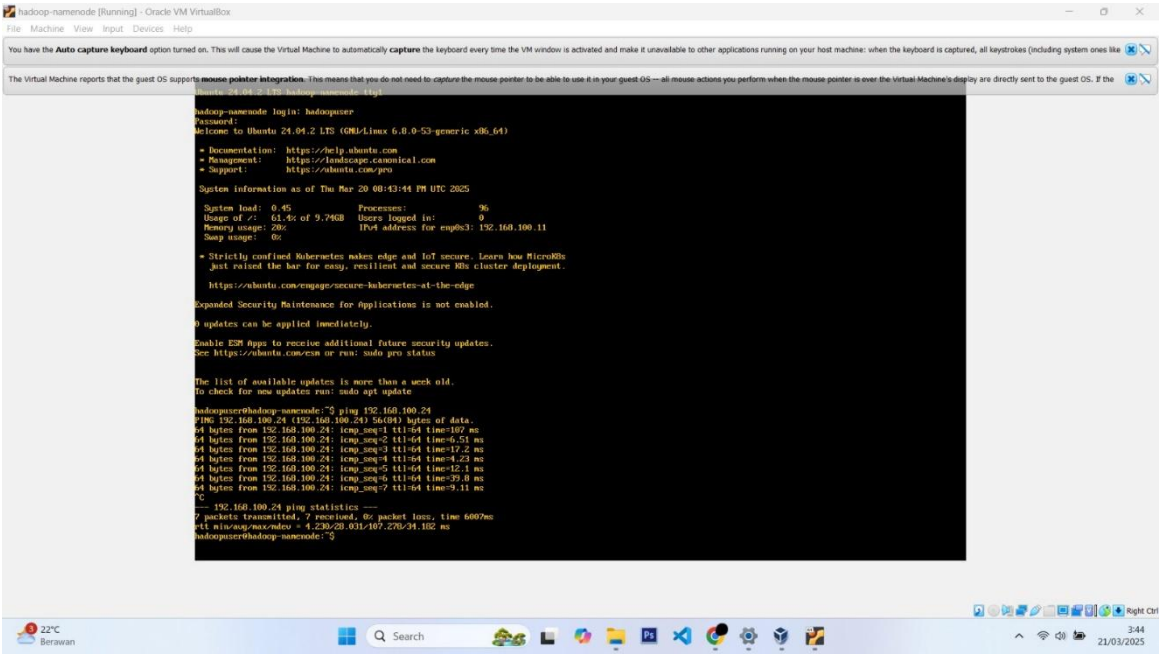
a. Hasil Instalasi



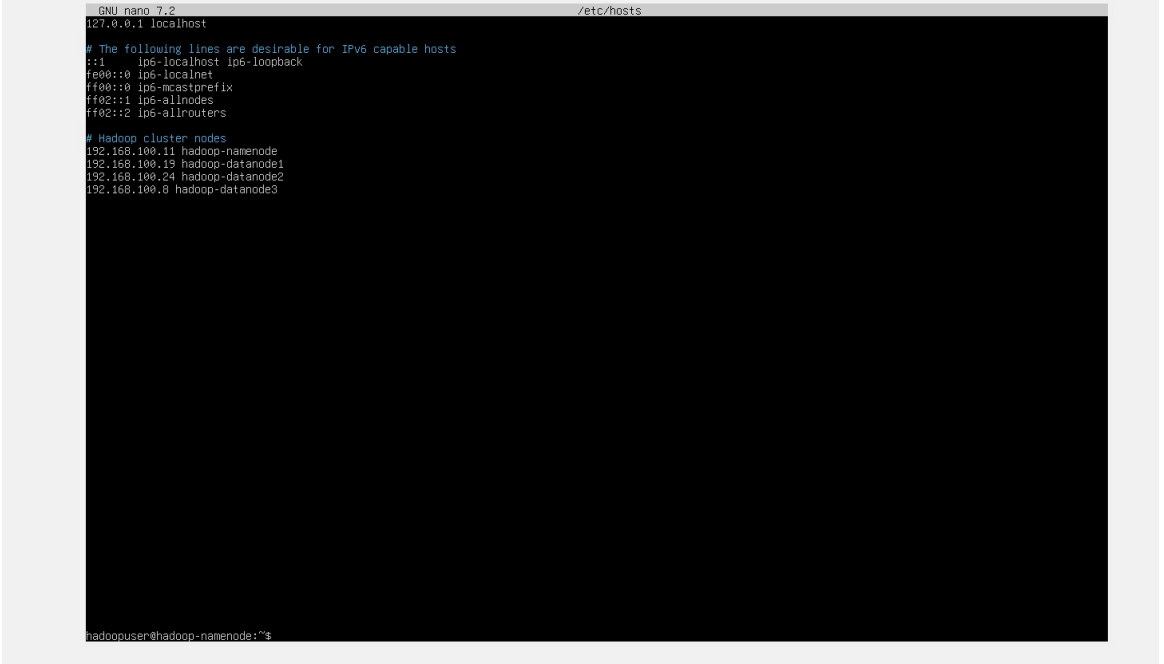
b. Login Hadoop



c. Alamat Ip : 192.168.100.11



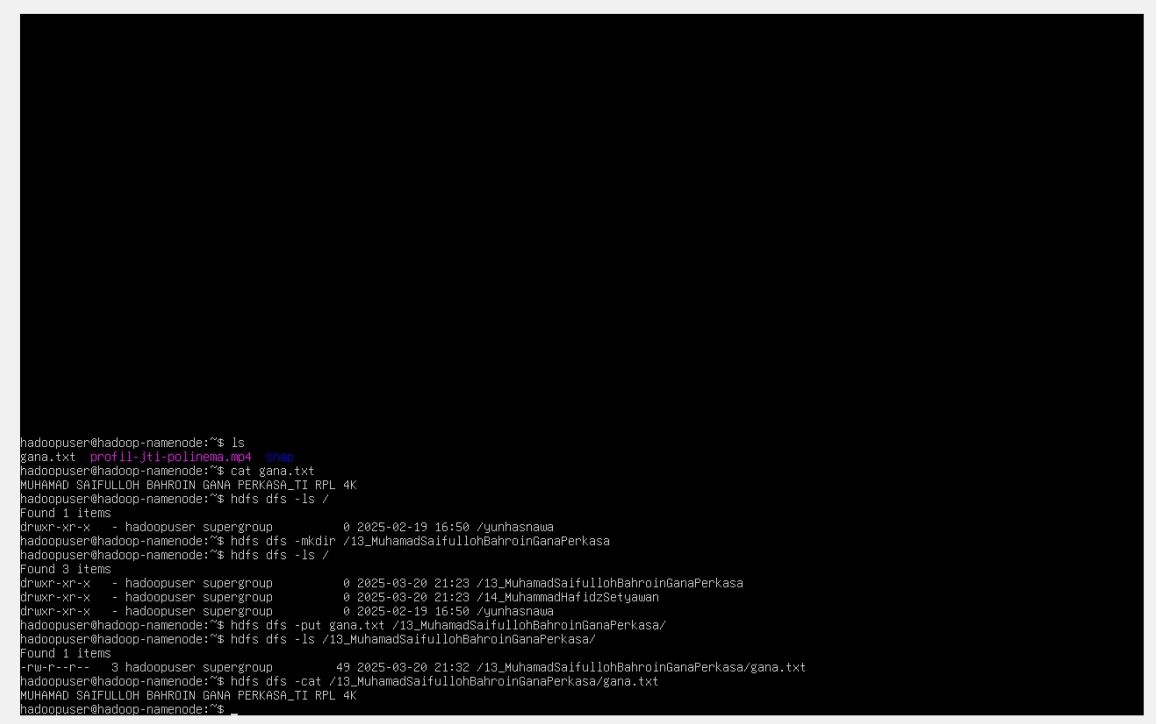
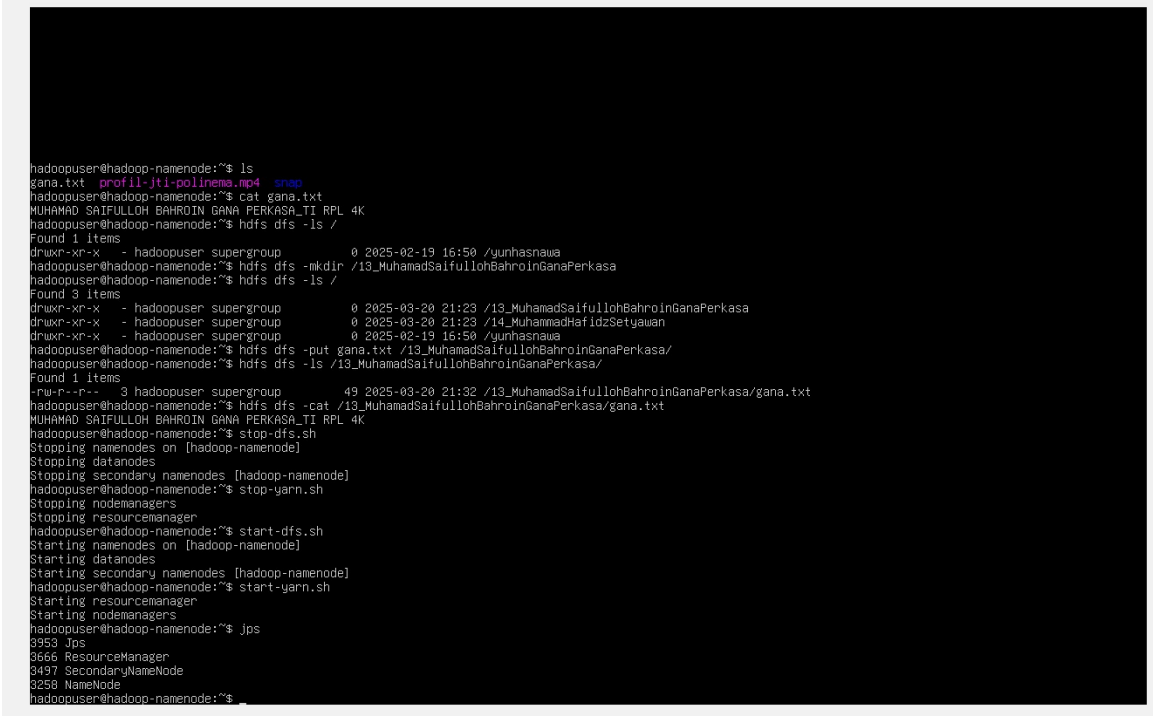
d. Setting /Ets/Host



e. Menghubungkan Ke Cluster Namenode

f. Membuat File Local

g. Membuat Direktori Pada Cluster



h. Upload File Pada Direktori