Nama   : Muhammad Rifky Harto Biantoro

Kelas   : TI-3D

NIM   : 2241720176

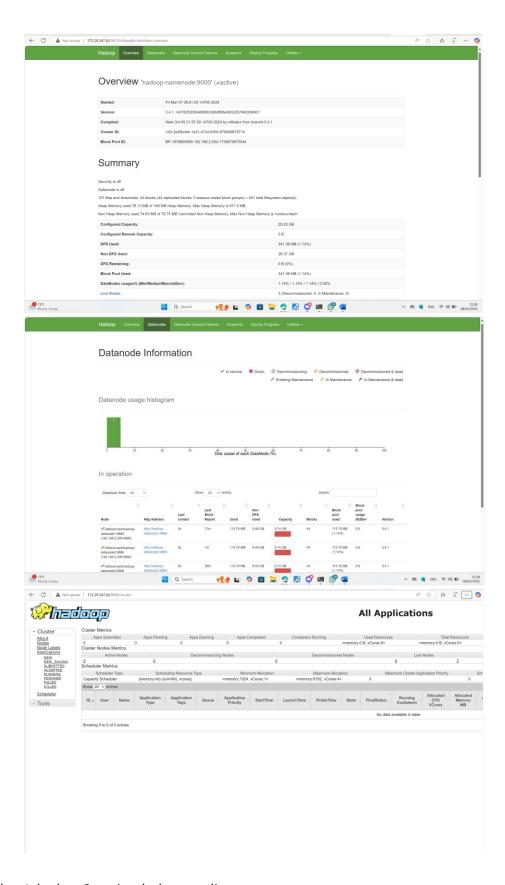Matkul : Big Data

1. Cobalah untuk :
   a. Terhubung ke Cluster Hadoop

   Mengakses Cluster Hadoop   :

   ```
   PS C:\Users\USER> ssh hadoopuser@172.29.247.62
   The authenticity of host '172.29.247.62 (172.29.247.62)' can't be established.
   ED25519 key fingerprint is SHA256:BjHVtsH6B+jEGxXCmJXyg4N7pbcsIvsSS+Eih0qkHOE.
   This key is not known by any other names.
   Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
   Warning: Permanently added '172.29.247.62' (ED25519) to the list of known hosts.
   hadoopuser@172.29.247.62's password:
   Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-54-generic x86_64)

    * Documentation:  https://help.ubuntu.com
    * Management:     https://landscape.canonical.com
    * Support:        https://ubuntu.com/pro

    System information as of Sat Mar  8 02:04:42 PM UTC 2025

     System load:  0.0                Processes:             129
     Usage of /:   76.0% of 9.74GB    Users logged in:       1
     Memory usage: 48%                IPv4 address for enp0s3: 192.168.2.203
     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.

   25 updates can be applied immediately.
   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


   *** System restart required ***
   Last login: Fri Mar  7 18:58:21 2025 from 172.29.178.203
   ```

   Cek Status Namenode   :

   ```
   hadoopuser@hadoop-namenode:~$ jps
   1699 SecondaryNameNode
   1878 ResourceManager
   18765 Jps
   1455 NameNode
   hadoopuser@hadoop-namenode:~$
   ```

   Melihat status datanode:

b. Jalankan 3 perintah dasar tadi

i. Melihat versi Hadoop

```
hadoopuser@hadoop-namenode:~$ hadoop version
Hadoop 3.4.1
Source code repository https://github.com/apache/hadoop.git -r 4d7825309348956336b8f06a08322b784228
Compiled by mthakur on 2024-10-09T14:57Z
Compiled on platform linux-x86_64
Compiled with protoc 3.23.4
From source with checksum 7292fe9dba5e2e44e3a9f763fce3e680
This command was run using /usr/local/hadoop/share/hadoop/common/hadoop-common-3.4.1.jar
hadoopuser@hadoop-namenode:~$
```

ii. Membuat Folder

```
hadoopuser@hadoop-namenode:~$ hadoop fs -mkdir /MuhammadRifky
```

iii. Melihat Folder yang ada

```
hadoopuser@hadoop-namenode:~$ hadoop fs -ls /
Found 30 items
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-25 07:33 /05_FebbyMathelda
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-07 16:30 /07_HafizhMuhammadRabbani
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-28 10:25 /09_MayaMelanesia
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-25 08:04 /10_MochammadZakaroAlFajri
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-07 19:10 /11_muhammadiqbalmuhtaram
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-25 08:58 /12_MuhammadIrsyadDany
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-27 01:59 /13_Fifi
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-26 03:32 /13_Hanief
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-26 03:33 /13_HaniefMochsin
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-25 08:58 /14NurhalizaAnindyaPutri
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-25 08:56 /15_RhanilhamFadlillatulRa
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-26 08:05 /18_MulkiHakim
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-25 07:53 /18_ShasiaSasaSalsabyla
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-26 07:44 /19_Rendy
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-01 09:04 /20_SukmaBagusWahasdwika
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-25 07:40 /21_TriyanaDewiFatmawati
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-02 20:30 /EntFladda
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-08 14:16 /MuhammadRifky
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-26 07:41 /RifkiFakhrudin
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-28 15:08 /SIB-3D
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-28 06:30 /TI-3A
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-26 03:15 /TI-3B
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-24 04:08 /TI-3E
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-26 03:36 /TI_3C
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-25 07:39 /TriyanaDewiFatmawati
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-26 08:24 /asyifa
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-25 04:29 /hsycoba
drwxr-xr-x   - hadoopuser supergroup          0 2025-03-07 07:34 /spark-logs
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-26 08:39 /syifa
drwxr-xr-x   - hadoopuser supergroup          0 2025-02-19 16:50 /yunhasnawa
hadoopuser@hadoop-namenode:~$
```