Mata kuliah	Big Data
Materi	02. Introducing Apache Hadoop
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Kelas	TI – 3D

I. Bukti Hasil Screenshoot Instalasi Hadoop

a. Cek versi java dengan menjalankan perintah java - -version di cmd.

```
C:\Windows\System32>java --version
java 21.0.5 2024-10-15 LTS
Java(TM) SE Runtime Environment (build 21.0.5+9-LTS-239)
Java HotSpot(TM) 64-Bit Server VM (build 21.0.5+9-LTS-239, mixed mode, sharing)
```

b. Cek versi Hadoop untuk memastikan bahwa Hadoop sudah berhasil terinstall

```
C:\Windows\System32>hadoop version
The filename, directory name, or volume label syntax is incorrect.
Hadoop 3.3.6
Source code repository https://github.com/apache/hadoop.git -r 1be78238728da9266a4f88195058f08fd012bf9c
Compiled by ubuntu on 2023-06-18T08:22Z
Compiled on platform linux-x86_64
Compiled with protoc 3.7.1
From source with checksum 5652179ad55f76cb287d9c633bb53bbd
This command was run using /C:/hadoop/share/hadoop/common/hadoop-common-3.3.6.jar
```

c. Buka CMD. Kemudian ketik perintah hdfs namenode -format untuk memformat sistem file HDFS (Hadoop Distributed File System). Tujuannya : Menginisialisasi HDFS, Membersihkan Metadata, Persiapan Cluster Baru.

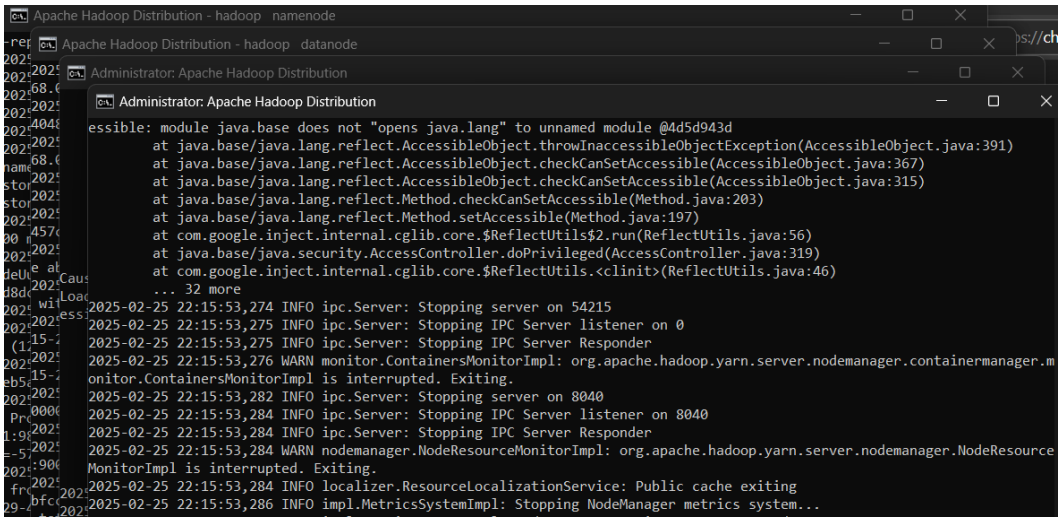
```
C:\Windows\System32>hdfs namenode -format
The filename, directory name, or volume label syntax is incorrect.
2025-02-25 22:13:39,721 INFO namenode.NameNode: STARTUP_MSG:
/************************************************************
STARTUP_MSG: Starting NameNode
STARTUP_MSG:   host = LAPTOP-H9VJ1IR7/192.168.0.16
STARTUP_MSG:   args = [-format]
STARTUP_MSG:   version = 3.3.6
STARTUP_MSG:   classpath = C:\hadoop\etc\hadoop;C:\hadoop\share\hadoop\common;C:\hadoop\share\hadoop\common\lib\animal-s
niffer-annotations-1.17.jar;C:\hadoop\share\hadoop\common\lib\audience-annotations-0.5.0.jar;C:\hadoop\share\hadoop\comm
on\lib\avro-1.7.7.jar;C:\hadoop\share\hadoop\common\lib\checker-qual-2.5.2.jar;C:\hadoop\share\hadoop\common\lib\commons
-beanutils-1.9.4.jar;C:\hadoop\share\hadoop\common\lib\commons-cli-1.2.jar;C:\hadoop\share\hadoop\common\lib\commons-cod
ec-1.15.jar;C:\hadoop\share\hadoop\common\lib\commons-collections-3.2.2.jar;C:\hadoop\share\hadoop\common\lib\commons-co
mpress-1.21.jar;C:\hadoop\share\hadoop\common\lib\commons-configuration2-2.8.0.jar;C:\hadoop\share\hadoop\common\lib\com
mons-daemon-1.0.13.jar;C:\hadoop\share\hadoop\common\lib\commons-io-2.8.0.jar;C:\hadoop\share\hadoop\common\lib\commons-
lang3-3.12.0.jar;C:\hadoop\share\hadoop\common\lib\commons-logging-1.1.3.jar;C:\hadoop\share\hadoop\common\lib\commons-m
ath3-3.1.1.jar;C:\hadoop\share\hadoop\common\lib\commons-net-3.9.0.jar;C:\hadoop\share\hadoop\common\lib\commons-text-1.
10.0.jar;C:\hadoop\share\hadoop\common\lib\curator-client-5.2.0.jar;C:\hadoop\share\hadoop\common\lib\curator-framework-
5.2.0.jar;C:\hadoop\share\hadoop\common\lib\curator-recipes-5.2.0.jar;C:\hadoop\share\hadoop\common\lib\dnsjava-2.1.7.ja
r;C:\hadoop\share\hadoop\common\lib\failureaccess-1.0.jar;C:\hadoop\share\hadoop\common\lib\gson-2.9.0.jar;C:\hadoop\sha
re\hadoop\common\lib\guava-27.0-jre.jar;C:\hadoop\share\hadoop\common\lib\hadoop-annotations-3.3.6.jar;C:\hadoop\share\h
adoop\common\lib\hadoop-auth-3.3.6.jar;C:\hadoop\share\hadoop\common\lib\hadoop-shaded-guava-1.1.1.jar;C:\hadoop\share\h
adoop\common\lib\hadoop-shaded-protobuf_3_7-1.1.1.jar;C:\hadoop\share\hadoop\common\lib\httpclient-4.5.13.jar;C:\hadoop\
share\hadoop\common\lib\httpcore-4.4.13.jar;C:\hadoop\share\hadoop\common\lib\j2objc-annotations-1.1.jar;C:\hadoop\share
\hadoop\common\lib\jackson-annotations-2.12.7.jar;C:\hadoop\share\hadoop\common\lib\jackson-core-2.12.7.jar;C:\hadoop\sh
are\hadoop\common\lib\jackson-core-asl-1.9.13.jar;C:\hadoop\share\hadoop\common\lib\jackson-databind-2.12.7.1.jar;C:\had
oop\share\hadoop\common\lib\jackson-mapper-asl-1.9.13.jar;C:\hadoop\share\hadoop\common\lib\jakarta.activation-api-1.2.1
```

d. Pindah atau masuk ke folder cd C:\hadoop\sbin kemudian ketik perintah start-all.cmd. Menjalankan perintah tersebut untuk mengawali semua layanan dan pengujian cluster skala kecil pada Hadoop di Windows sehingga akan memulai beberapa komponen seperti NameNode, DataNode, ResourceManager, dan NodeManager.

```
C:\Windows\System32>cd C:\hadoop\sbin

C:\hadoop\sbin>start-all.cmd
This script is Deprecated. Instead use start-dfs.cmd and start-yarn.cmd
The filename, directory name, or volume label syntax is incorrect.
The filename, directory name, or volume label syntax is incorrect.
starting yarn daemons
The filename, directory name, or volume label syntax is incorrect.
```

Akan muncul pop-up



e. Setelah menjalankan perintah tersebut, ketik perintah jps(Java Virtual Machine Process Status) untuk memverifikasi status yang layanan Hadoop berjalan dengan baik

```
C:\hadoop\sbin>jps
16472 ResourceManager
4520 DataNode
5208 DataNode
12044 Jps
15404 NameNode
2716 NameNode
2988 NodeManager
```

f. GUI di Browser Chrome