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<ul style="list-style-type: none">Nombre del curso: Infraestructura para Big Data		Nombre del profesor: Miguel de Jesús Martínez Felipe
Módulo: 1		Actividad: Actividad 4

En la Actividad, aprendí a instalar y configurar Hadoop en Ubuntu. Primero, instalé OpenJDK 8 y verifiqué la versión de Java. Luego, modifiqué el archivo .bashrc para agregar la ruta de Java.

Después, instalé OpenSSH en Ubuntu y generé un par de claves RSA para habilitar SSH sin contraseña para el usuario de Hadoop. Guardé la clave pública en el archivo authorized_keys en el directorio ssh y establecí los permisos para el usuario. Probé la conexión SSH a localhost y funcionó correctamente.

Luego, descargué y descomprimí Hadoop 3.3.6. Modifiqué varios archivos de configuración de Hadoop, incluyendo .bashrc, hadoop-env.sh, core-site.xml, hdfs-site.xml, mapred-site.xml y yarn-site.xml. Agregué varias opciones relacionadas con Hadoop al archivo .bashrc y establecí la variable de entorno de Java en hadoop-env.sh. En core-site.xml, establecí el nombre del sistema de archivos predeterminado. En hdfs-site.xml, establecí la replicación de DFS, el directorio del namenode y el directorio del datanode.

Current transaction ID: 4

Journal Manager

State

FileJournalManager(root=/home/jesus/hadoop-3.3.6/data/namenode)

EditLogOutputStream(/home/jesus/hadoop-3.3.6/data/namenode/current/edits_inprogress_0000000000000000004)

NameNode Storage

Storage Directory

Type

State

/home/jesus/hadoop-3.3.6/data/namenode

IMAGE_AND_EDITS

Active

DFS Storage Types

Storage Type	Configured Capacity	Capacity Used	Capacity Remaining	Block Pool Used	Nodes In Service
DISK	28.89 GB	24 KB (0%)	17.18 GB (59.44%)	24 KB	1



Cluster

- About
- Nodes
- Node Labels
- Applications
- NEW
- NEW SAVING
- SUBMITTED
- ACCEPTED
- RUNNING
- FINISHED
- FAILED
- KILLED
- Scheduler

Tools

Cluster Metrics

Apps Submitted	Apps Pending	Apps Running	Apps Completed	Containers Running
0	0	0	0	<1

Cluster Nodes Metrics

Active Nodes	Decommissioning Nodes	Decommissioned
1	0	0

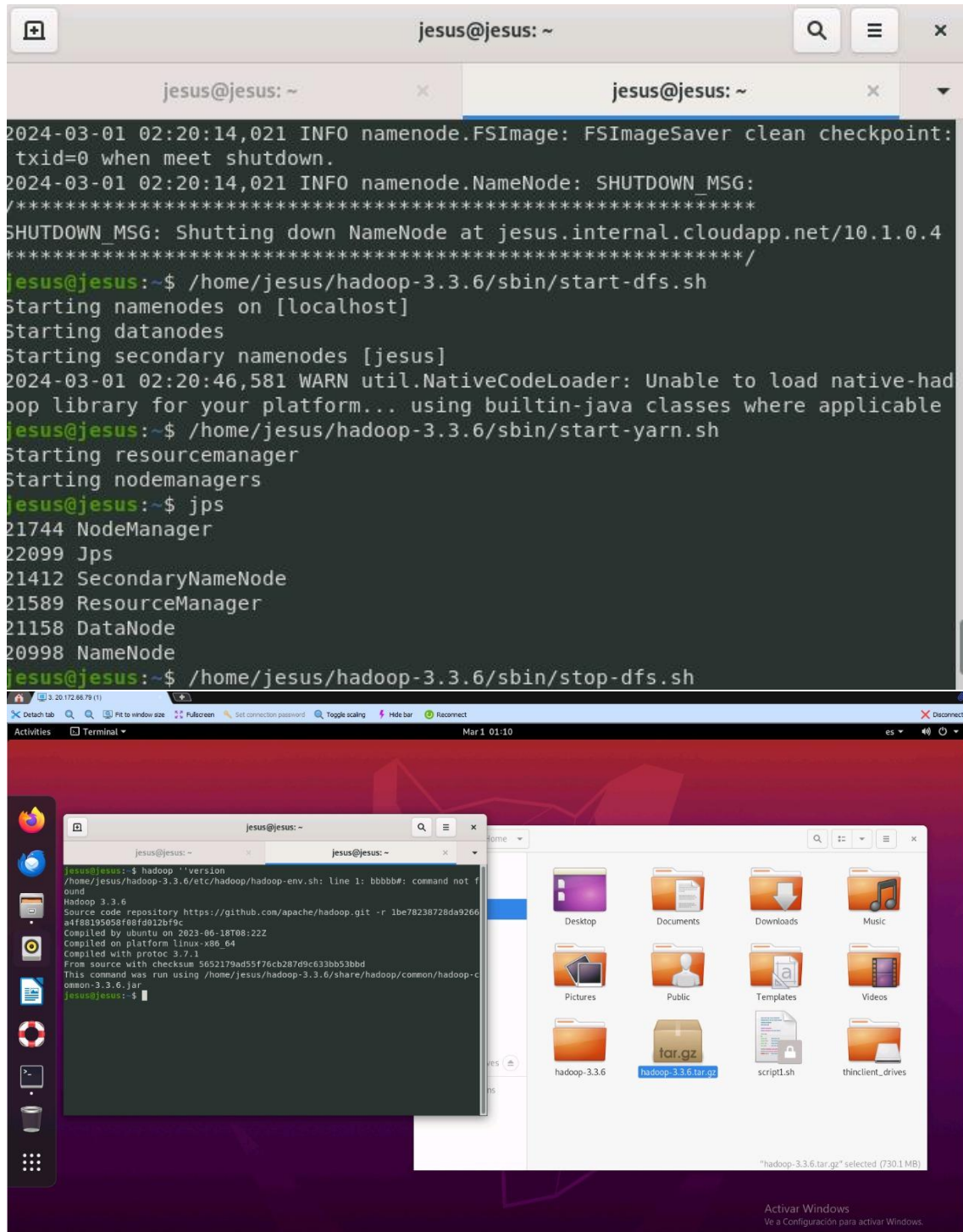
Scheduler Metrics

Scheduler Type	Scheduling Resource Type	Minimum Allocation
Capacity Scheduler	[memory-mb (unit=Mi), vcores]	<memory:1024, vCores:1>

Show 20 entries

ID	User	Name	Application Type	Application Tags	Queue	Application Priority	StartTime	LaunchTime	FinishTime
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Showing 0 to 0 of 0 entries



The screenshot displays a Linux desktop environment with a terminal window and a file manager window.

Terminal Window (Top):

```
jesus@jesus: ~  
2024-03-01 02:20:14,021 INFO namenode.FSImage: FSImageSaver clean checkpoint:  
txid=0 when meet shutdown.  
2024-03-01 02:20:14,021 INFO namenode.NameNode: SHUTDOWN_MSG:  
/*****  
SHUTDOWN_MSG: Shutting down NameNode at jesus.internal.cloudapp.net/10.1.0.4  
*****/  
jesus@jesus:~$ /home/jesus/hadoop-3.3.6/sbin/start-dfs.sh  
Starting namenodes on [localhost]  
Starting datanodes  
Starting secondary namenodes [jesus]  
2024-03-01 02:20:46,581 WARN util.NativeCodeLoader: Unable to load native-had  
oop library for your platform... using builtin-java classes where applicable  
jesus@jesus:~$ /home/jesus/hadoop-3.3.6/sbin/start-yarn.sh  
Starting resourcemanager  
Starting nodemanagers  
jesus@jesus:~$ jps  
21744 NodeManager  
22099 Jps  
21412 SecondaryNameNode  
21589 ResourceManager  
21158 DataNode  
20998 NameNode  
jesus@jesus:~$ /home/jesus/hadoop-3.3.6/sbin/stop-dfs.sh
```

Terminal Window (Bottom):

```
jesus@jesus:~$ hadoop --version  
/home/jesus/hadoop-3.3.6/etc/hadoop/hadoop-env.sh: line 1: bbbbbb: command not f  
ound  
Hadoop 3.3.6  
Source code repository https://github.com/apache/hadoop.git -r 1be78238728da9266  
a4f88195058f08fd012b9c  
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 /home/jesus/hadoop-3.3.6/share/hadoop/common/hadoop-c  
ommon-3.3.6.jar  
jesus@jesus:~$
```

File Manager Window:

The file manager shows the contents of the `/home/jesus` directory. The files and folders are:

- Desktop
- Documents
- Downloads
- Music
- Pictures
- Public
- Templates
- Videos
- hadoop-3.3.6
- hadoop-3.3.6.tar.gz (selected, 730.1 MB)
- script1.sh
- thinclient_drives

At the bottom of the desktop, there is a message: "Activar Windows. Ve a Configuración para activar Windows."