

SOLUCION TAREA 4

1. Configurar core-site.xml

```
GNU nano 8.6                               /home/kali/Desktop/hadoop/etc/hadoop/core-site.xml
?xml version="1.0" encoding="UTF-8"?>
?xml-stylesheet type="text/xsl" href="configuration.xsl"?>
!—
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→

!— Put site-specific property overrides in this file. →

<configuration>
    <property>
        <name>fs.defaultFS</name>
        <value>hdfs://localhost:9000</value>
    </property>
</configuration>
```

2. Configurar hdfs-site.xml

```
Session Actions Edit View Help
GNU nano 8.6          /home/kali/Desktop/hadoop/etc/hadoop/hdfs-site.xml
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>
<!--
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-->

<!-- Put site-specific property overrides in this file. -->

<configuration>
<!-- directorios locales para NameNode y DataNode -->
<property>
<name>dfs.namenode.name.dir</name>
<value>file:///datos/hadoop/namenode</value>
</property>

<property>
<name>dfs.datanode.data.dir</name>
<value>file:///datos/hadoop/datanode</value>
</property>
<!-- en pseudocluster: replicación 1 -->
<property>
<name>dfs.replication</name>
<value>1</value>
</property>
</configuration>
```

3. Configuración yarn-site.xml

```
root@kali: ~
Session Actions Edit View Help
GNU nano 8.6          /home/kali/Desktop/hadoop/etc/hadoop/yarn-site.xml
<?xml version="1.0"?>
<!—
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→

<configuration>
  <property>
    <name>yarn.nodemanager.aux-services</name>
    <value>mapreduce_shuffle</value>
  </property>

  <property>
    <name>yarn.resourcemanager.hostname</name>
    <value>localhost</value>
  </property>
</configuration>
```

4. Configuramos mapred-site.xml

```
Session Actions Edit View Help
GNU nano 8.6 /home/kali/Desktop/hadoop/etc/hadoop/mapred-site.xml *
<?xml version="1.0"?>
<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>
<!--
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WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
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limitations under the License. See accompanying LICENSE file.
-->
<!-- Put site-specific property overrides in this file. -->

<configuration>
  <property>
    <name>mapreduce.framework.name</name>
    <value>yarn</value>
  </property>
</configuration>
```

5. Creamos los directorios locales para HDFS

```
[root@kali]~]
# sudo mkdir -p /datos/hadoop/namenode

[root@kali]~]
# sudo mkdir -p /datos/hadoop/datanode

[root@kali]~]
# sudo chown -R kali:kali /datos/hadoop

[root@kali]~]
# chmod -R 700 /datos/hadoop

[root@kali]~]
```

6. Configurar SSH sin contraseña

```
Session Actions Edit View Help

└──(root㉿kali)-[~]
    # ssh-keygen -t rsa -P "" -f ~/.ssh/id_rsa
Generating public/private key pair.
Your identification has been saved in /root/.ssh/id_rsa
Your public key has been saved in /root/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:Bhfy/SoFRvSaJUNOmP1XU0xlIIi+/nmW9VZxtF3/lgcI root@kali
The key's randomart image is:
+---[RSA 3072]---+
|      .*= . .+*|
|      oB.+. o+o.| 
|      . 0.+E.o.+.| 
|      + B..oo oB| 
|      S ... ..X| 
|      . . . o=| 
|      . . . =| 
|      . . . +o| 
|      o. | 
+---[SHA256]---+ 

└──(root㉿kali)-[~]
    # cat ~/.ssh/id_rsa.pub >> ~/.ssh/authorized_keys

└──(root㉿kali)-[~]
    # chmod 600 ~/.ssh/authorized_keys

└──(root㉿kali)-[~]
    # █
```

7. Formatear el NameNode

The screenshot shows a terminal window with the following content:

```
root@kali: ~
Session Actions Edit View Help
└─(root@kali)~]
# hdfs namenode -format
Unknown command: namenode
Usage: hdfs COMMAND
The flags available are a subset of the POSIX ones, but should behave similarly.

Valid commands:
ls [-lah] [FILE] ...
rm [-rf] FILE ...
mv [-nT] SOURCE ... DEST
mkdir [-p] FILE ...
touch [-c] FILE ...
chmod [-R] OCTAL-MODE FILE ...
chown [-R] OWNER[:GROUP] FILE ...
cat SOURCE ...
head [-n LINES | -c BYTES] SOURCE ...
tail [-n LINES | -c BYTES] SOURCE ...
du [-sh] FILE ...
checksum FILE ...
get SOURCE [DEST]
getmerge SOURCE DEST
put SOURCE DEST
df [-h]
truncate SIZE FILE

└─(root@kali)~]
# █
```

8. Iniciar hadoop (hdfs)

```
\[\e]0;\u@h: \w\|]\[\033[;94m\]—(\[\033[1;31m\]\u@\h\[\033[;94m\])—(\[\033[0;1m\]\w\[\033[;94m\])\n\[\033[;94m\]
]└\[\033[1;31m\]$[\033[0m\] /home/kali/Desktop/hadoop/sbin/start-dfs.sh

Starting namenodes on [localhost]
ERROR: Attempting to operate on hdfs namenode as root
ERROR: but there is no HDFS_NAMENODE_USER defined. Aborting operation.
Starting datanodes
ERROR: Attempting to operate on hdfs datanode as root
ERROR: but there is no HDFS_DATANODE_USER defined. Aborting operation.
Starting secondary namenodes [kali]
ERROR: Attempting to operate on hdfs secondarynamenode as root
ERROR: but there is no HDFS_SECONDARYNAMENODE_USER defined. Aborting operation.
```

```
\[\e]0;\u@h: \w\|]\[\033[;94m\]—
]└\[\033[1;31m\]$[\033[0m\] jps
16880 Jps
```

9. Iniciamos YARN

```
(kali㉿kali)-[~]
$ /home/kali/Desktop/hadoop/sbin/start-yarn.sh
Starting resourcemanager
Starting nodemanagers
localhost: kali@localhost: Permission denied (publickey,password).
```

10. Probamos comandos básicos de hadoop

```
[kali㉿kali)-[~]
$ /home/kali/Desktop/hadoop/bin/hdfs dfs -mkdir -p /user/kali/pruebas
```