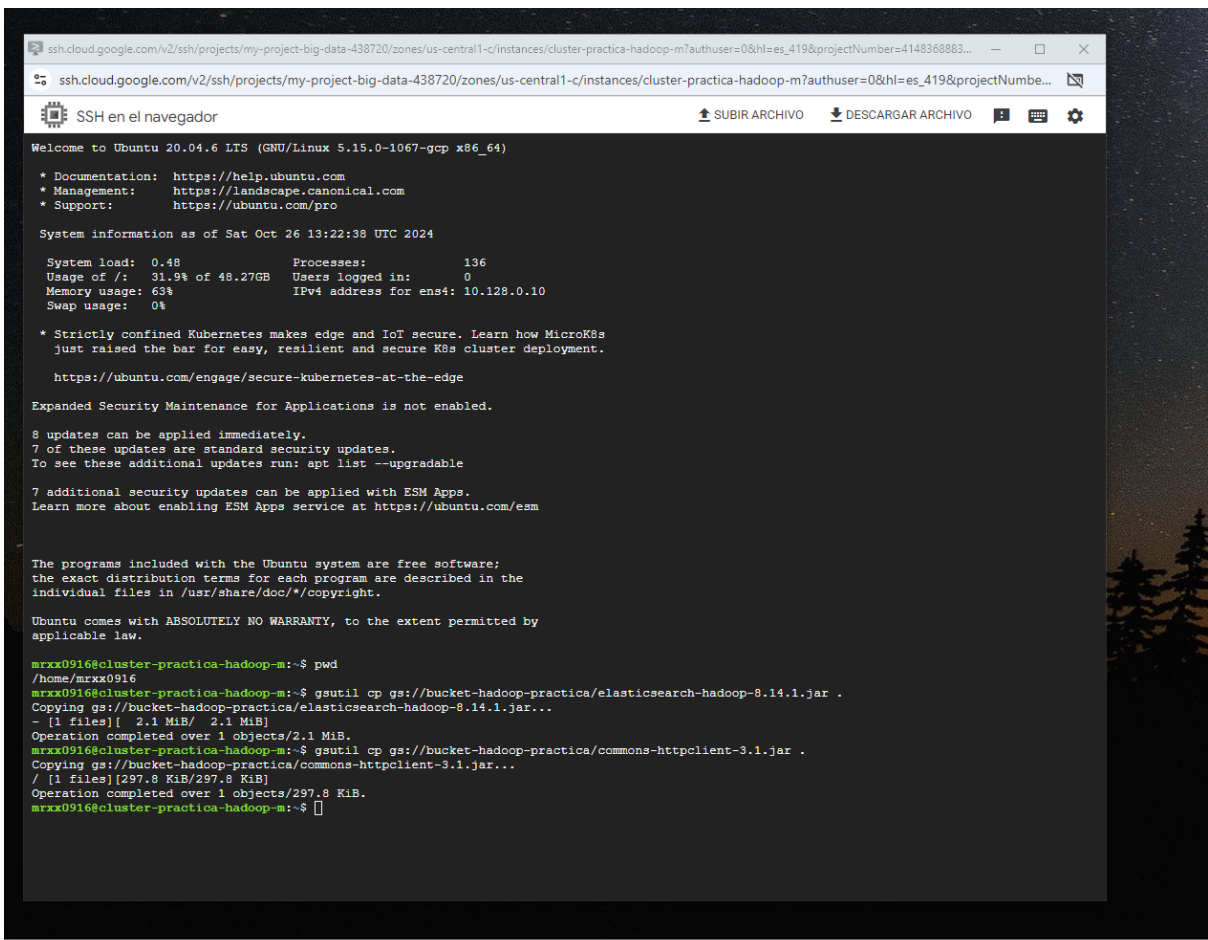


Pregunta1 :



The screenshot shows a terminal window titled "SSH en el navegador" with a browser address bar displaying an SSH connection to a Google Cloud VM. The terminal output includes the Ubuntu 20.04.6 LTS welcome message, system information (load, processes, memory, swap), and security updates. It also shows the user running 'pwd' and uploading two JAR files from Google Storage to the local directory using 'gsutil cp'.

```
ssh.cloud.google.com/v2/ssh/projects/my-project-big-data-438720/zones/us-central1-c/instances/cluster-practica-hadoop-m?authuser=0&hl=es_419&projectNumber=4148368863...
ssh.cloud.google.com/v2/ssh/projects/my-project-big-data-438720/zones/us-central1-c/instances/cluster-practica-hadoop-m?authuser=0&hl=es_419&projectNumbe...
SSH en el navegador
SUBIR ARCHIVO
DESCARGAR ARCHIVO

Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-1067-gcp x86_64)

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

System information as of Sat Oct 26 13:22:38 UTC 2024

System load:  0.48           Processes:           136
Usage of /:   31.9% of 48.27GB Users logged in:      0
Memory usage: 63%           IPv4 address for ena4: 10.128.0.10
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.

8 updates can be applied immediately.
7 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

7 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

mrxx0916@cluster-practica-hadoop-m:~$ pwd
/home/mrxx0916
mrxx0916@cluster-practica-hadoop-m:~$ gsutil cp gs://bucket-hadoop-practica/elasticsearch-hadoop-8.14.1.jar .
Copying gs://bucket-hadoop-practica/elasticsearch-hadoop-8.14.1.jar...
- [1 files] [ 2.1 MiB / 2.1 MiB]
Operation completed over 1 objects/2.1 MiB.
mrxx0916@cluster-practica-hadoop-m:~$ gsutil cp gs://bucket-hadoop-practica/commons-httpclient-3.1.jar .
Copying gs://bucket-hadoop-practica/commons-httpclient-3.1.jar...
/ [1 files] [297.8 KiB/297.8 KiB]
Operation completed over 1 objects/297.8 KiB.
mrxx0916@cluster-practica-hadoop-m:~$
```

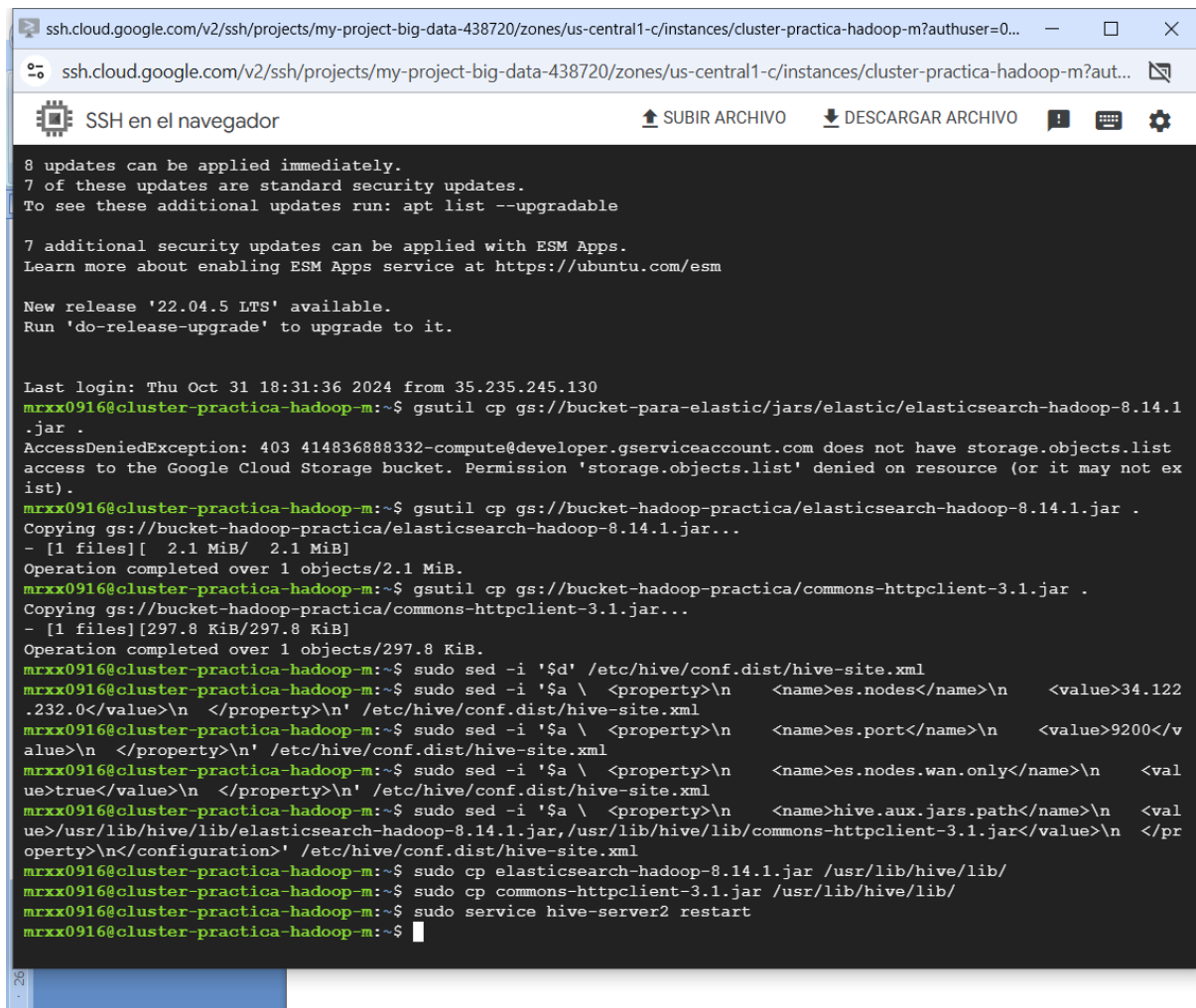
Pregunta2:

```
ssh.cloud.google.com/v2/ssh/projects/my-project-big-data-438720/zones/us-central1-c/instances/practica?authuser=0&hl=es_419&projectNumber=414836888332&useAdminProxy=true

SSH en el navegador

#
#http.port: 9200
#
# For more information, consult the network module documentation.
#
# ----- Discovery -----
#
# Pass an initial list of hosts to perform discovery when this node is started:
# The default list of hosts is ["127.0.0.1", "::1"]
#
#discovery.seed_hosts: ["host1", "host2"]
#
# Bootstrap the cluster using an initial set of master-eligible nodes:
#
#cluster.initial_master_nodes: ["node-1", "node-2"]
#
# For more information, consult the discovery and cluster formation module documentation.
#
# ----- Various -----
#
# Allow wildcard deletion of indices:
#
#action.destructive_requires_name: false
#
#----- BEGIN SECURITY AUTO CONFIGURATION -----
#
# The following settings, TLS certificates, and keys have been automatically
# generated to configure Elasticsearch security features on 26-10-2024 13:41:29
#
# -----
#
# Enable security features
xpack.security.enabled: false
xpack.security.enrollment.enabled: true
#
# Enable encryption for HTTP API client connections, such as Kibana, Logstash, and Agents
xpack.security.http.ssl:
  enabled: false
  keystore.path: certs/http.p12
#
# Enable encryption and mutual authentication between cluster nodes
xpack.security.transport.ssl:
  enabled: true
  verification_mode: certificate
  keystore.path: certs/transport.p12
  truststore.path: certs/transport.p12
# Create a new cluster with the current node only
# Additional nodes can still join the cluster later
cluster.initial_master_nodes: ["practica"]
#
# Allow HTTP API connections from anywhere
# Connections are encrypted and require user authentication
http.host: 0.0.0.0
#
# Allow other nodes to join the cluster from anywhere
# Connections are encrypted and mutually authenticated
transport.host: 0.0.0.0
#
#----- END SECURITY AUTO CONFIGURATION -----
mrxx0916@practica:~$
```

Pregunta3:



```
ssh.cloud.google.com/v2/ssh/projects/my-project-big-data-438720/zones/us-central1-c/instances/cluster-practica-hadoop-m?authuser=0...
ssh.cloud.google.com/v2/ssh/projects/my-project-big-data-438720/zones/us-central1-c/instances/cluster-practica-hadoop-m?aut...
SSH en el navegador
SUBIR ARCHIVO
DESCARGAR ARCHIVO
8 updates can be applied immediately.
7 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

7 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

New release '22.04.5 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Thu Oct 31 18:31:36 2024 from 35.235.245.130
mrxx0916@cluster-practica-hadoop-m:~$ gsutil cp gs://bucket-para-elastic/jars/elastic/elasticsearch-hadoop-8.14.1.jar .
AccessDeniedException: 403 414836888332-compute@developer.gserviceaccount.com does not have storage.objects.list access to the Google Cloud Storage bucket. Permission 'storage.objects.list' denied on resource (or it may not exist).
mrxx0916@cluster-practica-hadoop-m:~$ gsutil cp gs://bucket-hadoop-practica/elasticsearch-hadoop-8.14.1.jar .
Copying gs://bucket-hadoop-practica/elasticsearch-hadoop-8.14.1.jar...
- [1 files][ 2.1 MiB/ 2.1 MiB]
Operation completed over 1 objects/2.1 MiB.
mrxx0916@cluster-practica-hadoop-m:~$ gsutil cp gs://bucket-hadoop-practica/commons-httpclient-3.1.jar .
Copying gs://bucket-hadoop-practica/commons-httpclient-3.1.jar...
- [1 files][297.8 KiB/297.8 KiB]
Operation completed over 1 objects/297.8 KiB.
mrxx0916@cluster-practica-hadoop-m:~$ sudo sed -i '$d' /etc/hive/conf.dist/hive-site.xml
mrxx0916@cluster-practica-hadoop-m:~$ sudo sed -i '$a \ <property>\n <name>es.nodes</name>\n <value>34.122.232.0</value>\n </property>\n' /etc/hive/conf.dist/hive-site.xml
mrxx0916@cluster-practica-hadoop-m:~$ sudo sed -i '$a \ <property>\n <name>es.port</name>\n <value>9200</value>\n </property>\n' /etc/hive/conf.dist/hive-site.xml
mrxx0916@cluster-practica-hadoop-m:~$ sudo sed -i '$a \ <property>\n <name>es.nodes.wan.only</name>\n <value>true</value>\n </property>\n' /etc/hive/conf.dist/hive-site.xml
mrxx0916@cluster-practica-hadoop-m:~$ sudo sed -i '$a \ <property>\n <name>hive.aux.jars.path</name>\n <value>/usr/lib/hive/lib/elasticsearch-hadoop-8.14.1.jar,/usr/lib/hive/lib/commons-httpclient-3.1.jar</value>\n </property>\n</configuration>' /etc/hive/conf.dist/hive-site.xml
mrxx0916@cluster-practica-hadoop-m:~$ sudo cp elasticsearch-hadoop-8.14.1.jar /usr/lib/hive/lib/
mrxx0916@cluster-practica-hadoop-m:~$ sudo cp commons-httpclient-3.1.jar /usr/lib/hive/lib/
mrxx0916@cluster-practica-hadoop-m:~$ sudo service hive-server2 restart
mrxx0916@cluster-practica-hadoop-m:~$
```

Pregunta4:

