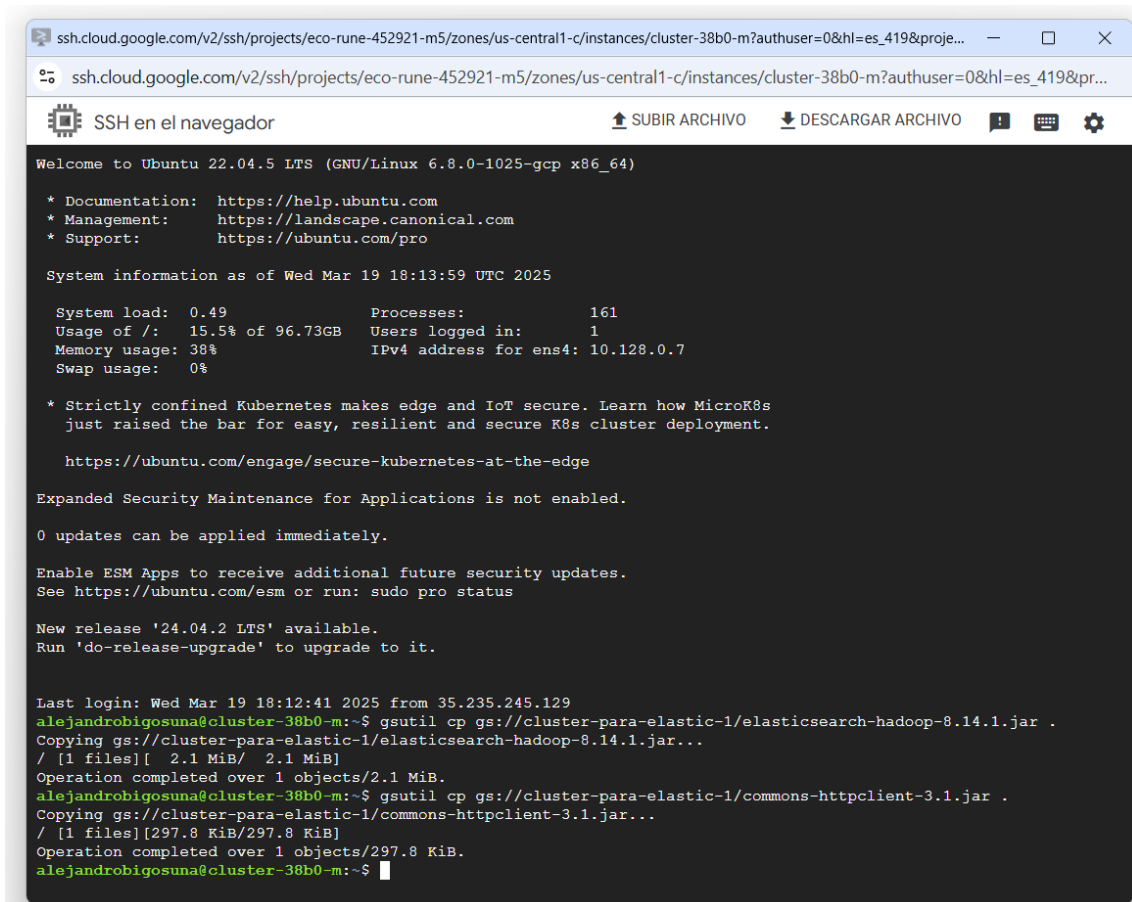


## PUNTO 1



The screenshot shows a terminal window titled "SSH en el navegador" with a browser address bar displaying an SSH connection to a Google Cloud instance. The terminal output includes the Ubuntu 22.04.5 LTS welcome message, system information (load, processes, memory usage, etc.), and a series of file operations performed by the user 'alejandrobigosuna' using 'gsutil' to copy files from Google Storage to the local instance.

```
ssh.cloud.google.com/v2/ssh/projects/eco-rune-452921-m5/zones/us-central1-c/instances/cluster-38b0-m?authuser=0&hl=es_419&proje...
ssh.cloud.google.com/v2/ssh/projects/eco-rune-452921-m5/zones/us-central1-c/instances/cluster-38b0-m?authuser=0&hl=es_419&pr...
SSH en el navegador SUBIR ARCHIVO DESCARGAR ARCHIVO
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.8.0-1025-gcp x86_64)

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

System information as of Wed Mar 19 18:13:59 UTC 2025

System load:  0.49           Processes:    161
Usage of /:   15.5% of 96.73GB Users logged in: 1
Memory usage: 38%          IPv4 address for ens4: 10.128.0.7
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.

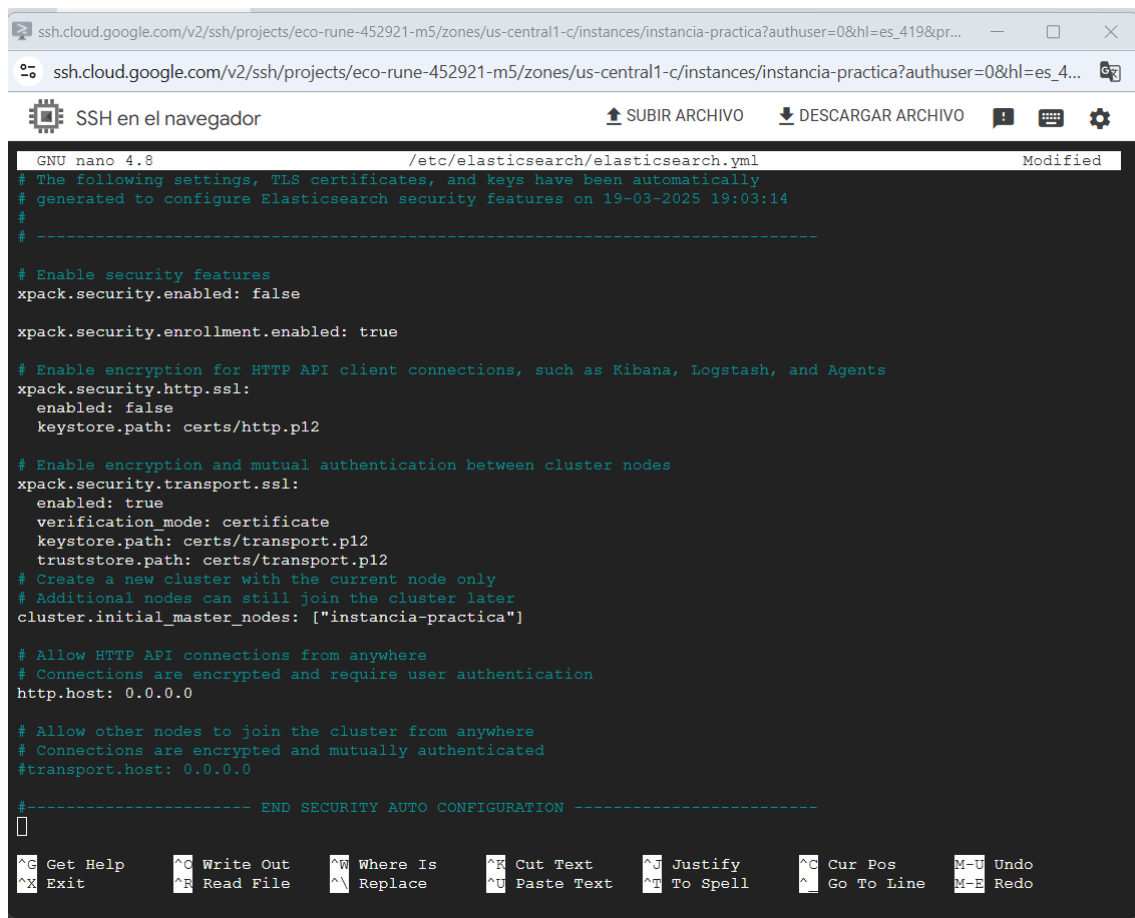
0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

New release '24.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Wed Mar 19 18:12:41 2025 from 35.235.245.129
alejandrobigosuna@cluster-38b0-m:~$ gsutil cp gs://cluster-para-elastic-1/elasticsearch-hadoop-8.14.1.jar .
Copying gs://cluster-para-elastic-1/elasticsearch-hadoop-8.14.1.jar...
/ [1 files] [ 2.1 MiB/ 2.1 MiB]
Operation completed over 1 objects/2.1 MiB.
alejandrobigosuna@cluster-38b0-m:~$ gsutil cp gs://cluster-para-elastic-1/commons-httpclient-3.1.jar .
Copying gs://cluster-para-elastic-1/commons-httpclient-3.1.jar...
/ [1 files] [297.8 KiB/297.8 KiB]
Operation completed over 1 objects/297.8 KiB.
alejandrobigosuna@cluster-38b0-m:~$
```

## PUNTO 2



ssh.cloud.google.com/v2/ssh/projects/eco-rune-452921-m5/zones/us-central1-c/instances/instancia-practica?authuser=0&hl=es\_419&pr...

ssh.cloud.google.com/v2/ssh/projects/eco-rune-452921-m5/zones/us-central1-c/instances/instancia-practica?authuser=0&hl=es\_4...

SSH en el navegador

SUBIR ARCHIVO

DESCARGAR ARCHIVO

GNU nano 4.8 /etc/elasticsearch/elasticsearch.yml Modified

```
# The following settings, TLS certificates, and keys have been automatically
# generated to configure Elasticsearch security features on 19-03-2025 19:03:14
#
# -----

# 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: ["instancia-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 -----

```

Get Help Write Out Where Is Cut Text Justify Cur Pos Undo  
Exit Read File Replace Paste Text To Spell Go To Line Redo

### PUNTO 3

```
ssh.cloud.google.com/v2/ssh/projects/eco-rune-452921-m5/zones/us-central1-c/instances/cluster-38b0-m?authuser=0&hl=es_419&proje...
ssh.cloud.google.com/v2/ssh/projects/eco-rune-452921-m5/zones/us-central1-c/instances/cluster-38b0-m?authuser=0&hl=es_419...
SSH en el navegador SUBIR ARCHIVO DESCARGAR ARCHIVO
System information as of Wed Mar 19 19:09:06 UTC 2025
System load: 0.25 Processes: 155
Usage of /: 15.5% of 96.73GB Users logged in: 0
Memory usage: 39% IPv4 address for ens4: 10.128.0.7
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.
0 updates can be applied immediately.
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
New release '24.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.
Last login: Wed Mar 19 18:14:00 2025 from 35.235.245.129
alejandrobigosuna@cluster-38b0-m:~$ sudo sed -i '$d' /etc/hive/conf.dist/hive-site.xml
alejandrobigosuna@cluster-38b0-m:~$ sudo sed -i '$a \ <property>\n <name>es.nodes</name>\n <value>AQUÍ LA
IP DE ELASTIC</value>\n </property>\n' /etc/hive/conf.dist/hive-site.xml
alejandrobigosuna@cluster-38b0-m:~$ sudo sed -i '$a \ <property>\n <name>es.port</name>\n <value>9200</val
ue>\n </property>\n' /etc/hive/conf.dist/hive-site.xml
alejandrobigosuna@cluster-38b0-m:~$ sudo sed -i '$a \ <property>\n <name>es.nodes.wan.only</name>\n <value
>true</value>\n </property>\n' /etc/hive/conf.dist/hive-site.xml
alejandrobigosuna@cluster-38b0-m:~$ sudo sed -i '$a \ <property>\n <name>hive.aux.jars.path</name>\n <value
>/usr/lib/hive/lib/elasticsearch-hadoop-8.14.1.jar,/usr/lib/hive/lib/commons-httpclient-3.1.jar</value>\n </prop
erty>\n</configuration>' /etc/hive/conf.dist/hive-site.xml
alejandrobigosuna@cluster-38b0-m:~$ sudo cp elasticsearch-hadoop-8.14.1.jar /usr/lib/hive/lib/
alejandrobigosuna@cluster-38b0-m:~$ sudo cp commons-httpclient-3.1.jar /usr/lib/hive/lib/
alejandrobigosuna@cluster-38b0-m:~$ sudo service hive-server2 restart
alejandrobigosuna@cluster-38b0-m:~$
```

## PUNTO 4

```
ssh.cloud.google.com/v2/ssh/projects/eco-rune-452921-m5/zones/us-central1-c/instances/instancia-practica?authuser=0&hl=es_419&pr...
ssh.cloud.google.com/v2/ssh/projects/eco-rune-452921-m5/zones/us-central1-c/instances/instancia-practica?authuser=0&hl=es_419...

SSH en el navegador SUBIR ARCHIVO DESCARGAR ARCHIVO

[2025-03-31T15:05:24,262] [INFO ] [o.e.x.w.WatcherLifecycleService] [instancia-practica] watcher has stopped and s
hutdown
[2025-03-31T15:05:24,607] [INFO ] [o.e.n.Node ] [instancia-practica] stopped
[2025-03-31T15:05:24,608] [INFO ] [o.e.n.Node ] [instancia-practica] closing ...
[2025-03-31T15:05:24,652] [INFO ] [o.e.n.Node ] [instancia-practica] closed

alejandrobigosuna@instancia-practica:~$ ^C
alejandrobigosuna@instancia-practica:~$ sudo systemctl restart elasticsearch
alejandrobigosuna@instancia-practica:~$ curl -X POST "localhost:9200/alumnos/_doc/6" -H 'Content-Type: applicati
on/json' -d'
> {
>   "title": "New Document",
>   "content": "This is a new document for the master class",
>   "tag": ["general", "testing"]
> }
> '
{"_index":"alumnos","id":"6","version":1,"result":"created","shards":{"total":2,"successful":1,"failed":0},"
seq_no":0,"primary_term":1}alejandrobigosuna@instancia-practica:~$ curl -X POST "34.44.51.129:9200/_bulk" -H 'C
ontent-Type: application/json' -d'
> { "_index": { "_index": "alumnos", "id": "3" } }
> { "id": 3, "name": "Carlos", "last_name": "González" }
> { "_index": { "_index": "alumnos", "id": "4" } }
> { "id": 4, "name": "Maria", "last_name": "López" }
> { "_index": { "_index": "alumnos", "id": "5" } }
> { "id": 5, "name": "Luis", "last_name": "Martínez" }
> { "_index": { "_index": "alumnos", "id": "7" } }
> { "id": 7, "name": "Sofia", "last_name": "Ramírez" }
> { "_index": { "_index": "alumnos", "id": "8" } }
> { "id": 8, "name": "Pedro", "last_name": "Hernández" }
> '
{"errors":false,"took":137,"items":[{"_index":{"_index":"alumnos","id":"3","version":1,"result":"created","sha
rds":{"total":2,"successful":1,"failed":0},"seq_no":1,"primary_term":1,"status":201}},{"index":{"_index":"alum
nos","id":"4","version":1,"result":"created","shards":{"total":2,"successful":1,"failed":0},"seq_no":2,"pri
mary_term":1,"status":201}},{"index":{"_index":"alumnos","id":"5","version":1,"result":"created","shards":{"t
otal":2,"successful":1,"failed":0},"seq_no":3,"primary_term":1,"status":201}},{"index":{"_index":"alumnos","i
d":"7","version":1,"result":"created","shards":{"total":2,"successful":1,"failed":0},"seq_no":4,"primary ter
m":1,"status":201}},{"index":{"_index":"alumnos","id":"8","version":1,"result":"created","shards":{"total":2,
"successful":1,"failed":0},"seq_no":5,"primary_term":1,"status":201}}]}alejandrobigosuna@instancia-practica:~$
^C
alejandrobigosuna@instancia-practica:~$
```

```
ssh.cloud.google.com/v2/ssh/projects/eco-rune-452921-m5/zones/us-central1-c/instances/instancia-practica?authuser=0&hl=es_419&pr...
ssh.cloud.google.com/v2/ssh/projects/eco-rune-452921-m5/zones/us-central1-c/instances/instancia-practica?authuser=0&hl=es_419...

SSH en el navegador SUBIR ARCHIVO DESCARGAR ARCHIVO

^C
alejandrobigosuna@instancia-practica:~$ curl -X GET "http://IP-SERVER-ELASTIC:9200/alumnos/_search?pretty"
curl: (6) Could not resolve host: IP-SERVER-ELASTIC
alejandrobigosuna@instancia-practica:~$ curl -X GET "http://34.44.51.129:9200/alumnos/_search?pretty"
{
  "took" : 127,
  "timed_out" : false,
  "_shards" : {
    "total" : 1,
    "successful" : 1,
    "skipped" : 0,
    "failed" : 0
  },
  "hits" : {
    "total" : {
      "value" : 6,
      "relation" : "eq"
    },
    "max_score" : 1.0,
    "hits" : [
      {
        "_index" : "alumnos",
        "_id" : "6",
        "_score" : 1.0,
        "_source" : {
          "title" : "New Document",
          "content" : "This is a new document for the master class",
          "tag" : [
            "general",
            "testing"
          ]
        }
      },
      {
        "_index" : "alumnos",
        "_id" : "3",
        "_score" : 1.0,
        "_source" : {
          "id" : 3,
          "name" : "Carlos",

```

