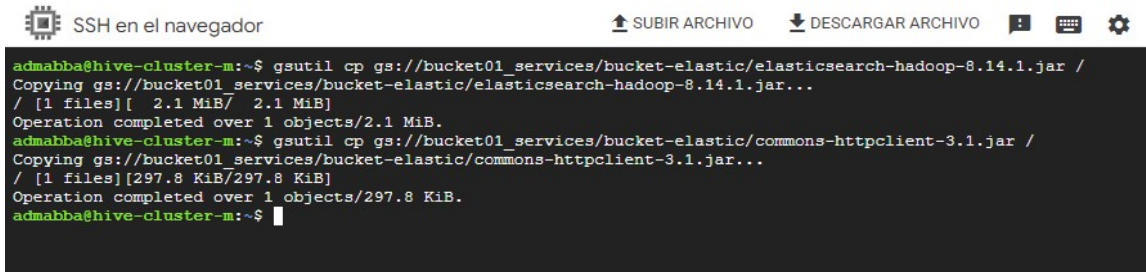


Elasticsearch for Apache Hadoop

Parte 1 – Configuración ES-Hadoop

Se crea clúster con nombre hive-cluster, en la foto se realiza la copia de los recursos .jar al filesystem del clúster.

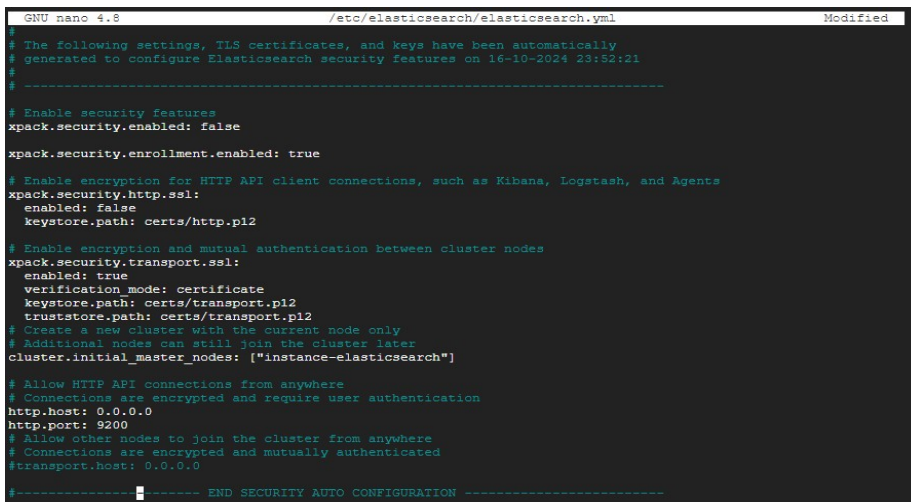


```
SSH en el navegador SUBIR ARCHIVO DESCARGAR ARCHIVO

admabba@hive-cluster-m:~$ gsutil cp gs://bucket01_services/bucket-elastic/elasticsearch-hadoop-8.14.1.jar /
Copying gs://bucket01_services/bucket-elastic/elasticsearch-hadoop-8.14.1.jar...
/ [1 files][ 2.1 MiB/ 2.1 MiB]
Operation completed over 1 objects/2.1 MiB.
admabba@hive-cluster-m:~$ gsutil cp gs://bucket01_services/bucket-elastic/commons-httpclient-3.1.jar /
Copying gs://bucket01_services/bucket-elastic/commons-httpclient-3.1.jar...
/ [1 files][297.8 KiB/297.8 KiB]
Operation completed over 1 objects/297.8 KiB.
admabba@hive-cluster-m:~$
```

Parte 2 – Configuración server Elasticsearch

Se crea instancia instancia-elasticsearch se agrega a la red las ip de mi local y la de la instancia hive-cluster donde se encuentra el clúster, y se crean dos reglas firewall, allow-elasticsearch y allow-kibana. Por otra parte, se configura el archivo elasticsearch.yml



```
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 16-10-2024 23:52:21
#
#-----
# 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: ["instance-elasticsearch"]

# Allow HTTP API connections from anywhere
# Connections are encrypted and require user authentication
http.host: 0.0.0.0
http.port: 9200
# 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 -----
```

```

admahivehive-cluster-ar:~$ sudo sed -i '5d' /etc/hive/conf.dist/hive-site.xml
admahivehive-cluster-ar:~$ sudo sed -i '5a' /etc/hive/conf.dist/hive-site.xml
admahivehive-cluster-ar:~$ sudo sed -i '5a' /etc/hive/conf.dist/hive-site.xml
admahivehive-cluster-ar:~$ sudo sed -i '5a' /etc/hive/conf.dist/hive-site.xml
admahivehive-cluster-ar:~$ sudo sed -i '5a' /etc/hive/conf.dist/hive-site.xml
admahivehive-cluster-ar:~$ sudo sed -i '5a' /etc/hive/conf.dist/hive-site.xml
admahivehive-cluster-ar:~$ sudo cp commons-httpclient-3.1.jar /usr/lib/hive/lib/
admahivehive-cluster-ar:~$ sudo cp elasticsearch-hadoop-3.14.1.jar /usr/lib/hive/lib/
admahivehive-cluster-ar:~$ sudo cp commons-httpclient-3.1.jar /usr/lib/hive/lib/
admahivehive-cluster-ar:~$ cd ..
admahivehive-cluster-ar:~$ sudo service hive-server2 restart
admahivehive-cluster-ar:~$

```

Se crea a través del POST la creación del índice de alumnos y se realiza una petición GET al `_search` para obtener todos los documentos que pertenecen al índice.

```

admlabhive-cluster-a:~$ curl -X GET "http://34.73.127.59:9200/_search?pretty"
{"took": 99,
 "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",
         "last_name": "González"
       }
     },
     {
       "index": "alumnos",
       "id": "4",
       "score": 1.0,
       "source": {
         "id": 4,
         "name": "Maria",
         "last_name": "López"
       }
     },
     {
       "index": "alumnos",
       "id": "5",
       "score": 1.0,
       "source": {
         "id": 5,
         "name": "Luis",
         "last_name": "Martínez"
       }
     },
     {
       "index": "alumnos",
       "id": "7",
       "score": 1.0,
       "source": {
         "id": 7,
         "name": "Sofia",
         "last_name": "Ramírez"
       }
     },
     {
       "index": "alumnos",
       "id": "8",
       "score": 1.0,
       "source": {
         "id": 8,
         "name": "Pedro",
         "last_name": "Hernández"
       }
     }
   ]
 }
}
admlabhive-cluster-a:~$

```

Parte 5 – Kibana

