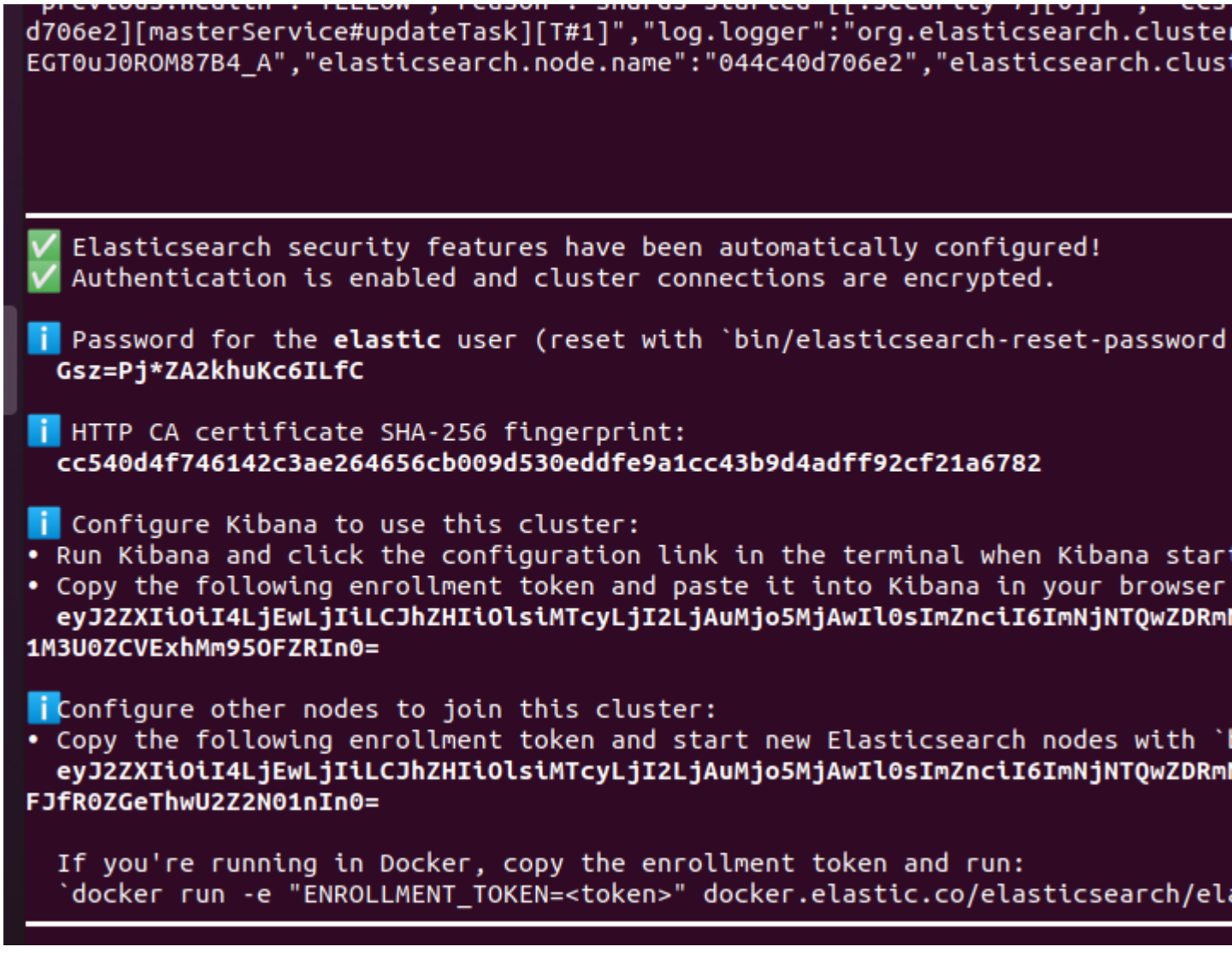
You can set up the via docker run
manually via : docker run --name elasticsearch2 --net somenetwork -p 9200:9200 -p 9300:9300 -e "discovery.type=single-node" -m 2g -t elasticsearch:8.10.2

see the - t to get outpt in the tty

https://www.youtube.com/watch?v=j61yfEfeJAE



or to setup via docker compose read documentation or chatgpt

https://www.elastic.co/guide/en/elasticsearch/reference/current/docker.html

after following the steps by entering passwrod in .env u will get this error in which the fourth line states vm.max_map_count 65530 is too low

```
CONTAINER ID   IMAGE          COMMAND                  CREATED             STATU
fcb61ae9c3e0   postgres:15    "docker-entrypoint.s…"   About an hour ago   Up Ab
maheboob@maheboob:~/Desktop/elastickibana compose/documentation$ docker compose
[+] Running 6/6
 ✔ Network documentation_default      Created
 ✔ Container documentation-setup-1    Healthy
 ✘ Container documentation-es01-1     Error
 ✘ Container documentation-es02-1     Error
 ✘ Container documentation-es03-1     Error
 ✔ Container documentation-kibana-1   Created
dependency failed to start: container documentation-es02-1 exited (78)
maheboob@maheboob:~/Desktop/elastickibana compose/documentation$ docker logs do
Error response from daemon: No such container: documentation-es01
maheboob@maheboob:~/Desktop/elastickibana compose/documentation$ docker logs do
Created elasticsearch keystore in /usr/share/elasticsearch/config/elasticsearch
{"@timestamp":"2023-10-09T06:31:24.349Z", "log.level": "INFO", "message":"Java
asticsearch.server","process.thread.name":"main","log.logger":"org.apache.lucen
{"@timestamp":"2023-10-09T06:31:24.890Z", "log.level": "INFO", "message":"versi
-86-generic/amd64], JVM[Oracle Corporation/OpenJDK 64-Bit Server VM/20.0.2/20.0
```

```
{"@timestamp":"2023-10-09T06:31:35.549Z", "log.level": "INFO", "message":"bound
.dataset":"elasticsearch.server","process.thread.name":"main","log.logger":"org.
{"@timestamp":"2023-10-09T06:31:35.553Z", "log.level":"ERROR", "message":"node va
tarting Elasticsearch.\nbootstrap check failure [1] of [1]: max virtual memory a
vent.dataset":"elasticsearch.server","process.thread.name":"main","log.logger":"
ERROR: Elasticsearch did not exit normally - check the logs at /usr/share/elasti
{"@timestamp":"2023-10-09T06:31:35.556Z", "log.level": "WARN", "message":"unexpe
sticsearch.server","process.thread.name":"Thread-0","log.logger":"org.elasticsea
rrent.ExecutionException","error.message":"java.lang.IllegalStateException: Can'
ateException: Can't move to stopped state when not started\n\tat java.base/java.
191)\n\tat org.elasticsearch.server@8.10.2/org.elasticsearch.node.Node.prepareFo
ch.java:466)\n\tat java.base/java.lang.Thread.run(Thread.java:1623)\nCaused by:
sticsearch.common.component.Lifecycle.canMoveToStopped(Lifecycle.java:128)\n\tat
ent.java:73)\n\tat org.elasticsearch.server@8.10.2/org.elasticsearch.node.Node.l
nore\n"}
{"@timestamp":"2023-10-09T06:31:35.556Z", "log.level": "INFO", "message":"stoppi
d-0","log.logger":"org.elasticsearch.node.Node","elasticsearch.node.name":"es01"
{"@timestamp":"2023-10-09T06:31:35.566Z", "log.level": "INFO", "message":"stoppe
"log.logger":"org.elasticsearch.node.Node","elasticsearch.node.name":"es01","ela
{"@timestamp":"2023-10-09T06:31:35.566Z", "log.level": "INFO", "message":"closin
-0","log.logger":"org.elasticsearch.node.Node","elasticsearch.node.name":"es01",
{"@timestamp":"2023-10-09T06:31:35.571Z", "log.level": "INFO", "message":"closed
log.logger":"org.elasticsearch.node.Node","elasticsearch.node.name":"es01","elas
{"@timestamp":"2023-10-09T06:31:35.572Z", "log.level": "INFO", "message":"Native
event.dataset":"elasticsearch.server","process.thread.name":"ml-cpp-log-tail-thr
ster.name":"docker-cluster"}

ERROR: Elasticsearch exited unexpectedly, with exit code 78
```

to solve this read the documention of elasticsearch witht the heading Using docker images in produc

Set vm.max_map_count to at least 262144edit

The vm.max_map_count kernel setting must be set to at least 262144 for production use.

How you set vm.max_map_count depends on your platform.

Linuxedit

To view the current value for the vm.max_map_count setting, run:

Otherwise since the docker compose file in the documentation is of 3 nodes so instead use 1 single node of es 01

with same default vm max limit and memlimt of 1g it will work