**Lab environment - attachments**

* **Install docker on ubuntu**

[*https://docs.docker.com/engine/install/ubuntu/*](https://docs.docker.com/engine/install/ubuntu/)

*sudo apt install curl*

*curl* [*https://get.docker.com*](https://get.docker.com) *-o get-docker.sh*

*sudo sh get-docker.sh*

*sudo groupadd docker*

*sudo usermod -aG docker $USER*

*sudo curl -L "https://github.com/docker/compose/releases/download/1.29.2/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose*

*sudo chmod +x /usr/local/bin/docker-compose*

*docker-compose --version*

* **Run elasticsearch docker container using command line**

*docker run -p 9200:9200 -p 9300:9300 -e "discovery.type=single-node" docker.elastic.co/elasticsearch/elasticsearch:7.13.3*

* **Docker compose yml content to run standalone elasticsearch instance**

*version: '2.2'*

*services:*

*es-standalone:*

*image: docker.elastic.co/elasticsearch/elasticsearch:7.13.3*

*container\_name: es-standalone*

*environment:*

*- discovery.type=single-node*

*- "ES\_JAVA\_OPTS=-Xms512m -Xmx512m"*

*ulimits:*

*memlock:*

*soft: -1*

*hard: -1*

*volumes:*

*- data-standalone:/usr/share/elasticsearch/data*

*ports:*

*- 9200:9200*

*networks:*

*- elastic-standalone*

*volumes:*

*data-standalone:*

*driver: local*

*networks:*

*elastic-standalone:*

*driver: bridge*

* **Docker compose yml content to run elasticsearch cluster within 3 nodes**

*version: '2.2'*

*services:*

*es01:*

*image: docker.elastic.co/elasticsearch/elasticsearch:7.7.1*

*container\_name: es01*

*environment:*

*- node.name=es01*

*- cluster.name=es-docker-cluster*

*- discovery.seed\_hosts=es02,es03*

*- cluster.initial\_master\_nodes=es01,es02,es03*

*- bootstrap.memory\_lock=true*

*- "ES\_JAVA\_OPTS=-Xms512m -Xmx512m"*

*ulimits:*

*memlock:*

*soft: -1*

*hard: -1*

*volumes:*

*- data01:/usr/share/elasticsearch/data*

*ports:*

*- 9200:9200*

*networks:*

*- elastic*

*es02:*

*image: docker.elastic.co/elasticsearch/elasticsearch:7.7.1*

*container\_name: es02*

*environment:*

*- node.name=es02*

*- cluster.name=es-docker-cluster*

*- discovery.seed\_hosts=es01,es03*

*- cluster.initial\_master\_nodes=es01,es02,es03*

*- bootstrap.memory\_lock=true*

*- "ES\_JAVA\_OPTS=-Xms512m -Xmx512m"*

*ulimits:*

*memlock:*

*soft: -1*

*hard: -1*

*volumes:*

*- data02:/usr/share/elasticsearch/data*

*networks:*

*- elastic*

*es03:*

*image: docker.elastic.co/elasticsearch/elasticsearch:7.7.1*

*container\_name: es03*

*environment:*

*- node.name=es03*

*- cluster.name=es-docker-cluster*

*- discovery.seed\_hosts=es01,es02*

*- cluster.initial\_master\_nodes=es01,es02,es03*

*- bootstrap.memory\_lock=true*

*- "ES\_JAVA\_OPTS=-Xms512m -Xmx512m"*

*ulimits:*

*memlock:*

*soft: -1*

*hard: -1*

*volumes:*

*- data03:/usr/share/elasticsearch/data*

*networks:*

*- elastic*

*volumes:*

*data01:*

*driver: local*

*data02:*

*driver: local*

*data03:*

*driver: local*

*networks:*

*elastic:*

*driver: bridge*

* **Useful links**

<https://www.elastic.co/guide/en/elasticsearch/guide/master/_talking_to_elasticsearch.html>

[https://www.elastic.co/guide/en/elasticsearch/reference/7.13/vm-max-map-count.htm](https://www.elastic.co/guide/en/elasticsearch/reference/7.13/vm-max-map-count.html)