

Cấu hình

Cấu hình docker

Folder gồm 3 file:

- elasticsearch.yml: các cài đặt cấu hình cho elastic search

```
yml elasticsearch.yml
1  cluster.name: "docker-cluster"
2  network.host: 0.0.0.0
3  xpack.security.enabled: true
4  |
```

- kibana.yml: các cài đặt cấu hình cho kibana

```
yml kibana.yml
1  #
2  # ** THIS IS AN AUTO-GENERATED FILE **
3  #
4
5  # Default Kibana configuration for docker target
6  server.host: "0"
7  server.shutdownTimeout: "5s"
8  elasticsearch.hosts: [ "http://elasticsearch:9200" ]
9  monitoring.ui.container.elasticsearch.enabled: true
10 xpack.security.enabled: true
11 elasticsearch.username: "kibana_system"
12 elasticsearch.password: "123456"
13 |
```

- docker-compose.yml: triển khai 2 container tương ứng cho elastic search và kibana trong một network “elastic”

```
docker-compose.yml
1  version: "3"
2
3
4  services:
5    elastic_search:
6      image: docker.elastic.co/elasticsearch/elasticsearch:7.15.1
7      container_name: es01-test
8      restart: always
9      volumes:
10       - ./elasticsearch.yml:/usr/share/elasticsearch/config/elasticsearch.yml
11     ports:
12       - 9200:9200
13       - 9300:9300
14     environment:
15       - discovery.type=single-node
16     networks:
17       - elastic
18
19    kibana:
20      image: docker.elastic.co/kibana/kibana:7.15.1
21      container_name: kib01-test
22      restart: always
23      volumes:
24       - ./kibana.yml:/usr/share/kibana/config/kibana.yml
25     ports:
26       - 5601:5601
27     depends_on:
28       - elastic_search
29     environment:
30       - ELASTICSEARCH_HOSTS=http://es01-test:9200
31     networks:
32       - elastic
33
34
35  networks:
36    elastic:
37      name: elastic
38      driver: bridge
39
```

Build các container:

```
DELL@DESKTOP-CBTQF2K D: > BigData > Assignments > Exercise4 > ES-Kib □ base 3.8.8
> docker-compose up -d
Creating network "elastic" with driver "bridge"
Creating es01-test ... done
Creating kib01-test ... done
```

Cài đặt mật khẩu và bảo mật

Vào terminal của container es01-test:

```
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> docker exec -it es01-test /bin/bash
bash-4.4# ./bin/elasticsearch-se
elasticsearch-service-tokens elasticsearch-setup-passwords
```

Set up mật khẩu cho các user mặc định của elastic search, trong đó có superuser elastic và user kibana_system (để các mật khẩu đều là “123456”):

```
bash-4.4# ./bin/elasticsearch-setup-passwords interactive
Initiating the setup of passwords for reserved users elastic,apm_system,kibana,kibana_system,logstash_system,beats_system,remote_monitoring_user.
You will be prompted to enter passwords as the process progresses.
Please confirm that you would like to continue [y/N]y

Enter password for [elastic]:
Reenter password for [elastic]:
Enter password for [apm_system]:
Reenter password for [apm_system]:
Enter password for [kibana_system]:
Reenter password for [kibana_system]:
Enter password for [logstash_system]:
Reenter password for [logstash_system]:
Enter password for [beats_system]:
Reenter password for [beats_system]:
Enter password for [remote_monitoring_user]:
Reenter password for [remote_monitoring_user]:
Changed password for user [apm_system]
Changed password for user [kibana_system]
Changed password for user [kibana]
Changed password for user [logstash_system]
Changed password for user [beats_system]
Changed password for user [remote_monitoring_user]
Changed password for user [elastic]
```

Đăng nhập vào kibana với username “elastic”, mật khẩu “123456”.

Triển khai

Dữ liệu

Bộ dữ liệu youtube video trending của Mỹ trong khoảng thời gian hơn một năm đổ lại.

video_id	video_title	published_at	channel_id	channel_title	tags	view_count	likes	dislikes	comment_count	thumbnail_link	comments_disabled	ratings_disabled	trending_date	category_id	category_title
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Trực quan hóa dữ liệu

Tạo các biểu đồ và add vào dashboard. Một vài ví dụ tiêu biểu (toàn bộ trong file result.pdf):

