

# Docker compose

에스이랩 박연구 부장

2023-08-04

# Docker Compose

- Compose는 멀티 컨테이너 Docker 애플리케이션을 정의하고 실행하기 위한 도구
- Compose를 사용하면 YAML 파일을 사용하여 애플리케이션의 서비스를 구성할 수 있음
- 명령 한 번으로 구성에서 모든 서비스를 생성하고 시작할 수 있음

# YAML

- 사람이 쉽게 읽을 수 있는 데이터 직렬화 양식

## Xml

```
<?xml version="1.0" encoding="UTF-8" ?>
<root>
  <apiVersion>v1</apiVersion>
  <kind>Pod</kind>
  <metadata>
    <name>hello-pod</name>
    <labels>
      <app>hello</app>
    </labels>
  </metadata>
  <spec>
    <containers>
      <name>hello-container</name>
      <image>tmkube/hello</image>
      <ports>
        <containerPort>8000</containerPort>
      </ports>
    </containers>
  </spec>
</root>
```

## Json

```
{
  "apiVersion": "v1",
  "kind": "Pod",
  "metadata": {
    "name": "hello-pod",
    "labels": {
      "app": "hello"
    }
  },
  "spec": {
    "containers": [
      {
        "name": "hello-container",
        "image": "tmkube/hello",
        "ports": [
          {
            "containerPort": 8000
          }
        ]
      }
    ]
  }
}
```

## Yaml

```
apiVersion: v1
kind: Pod
metadata:
  name: hello-pod
  labels:
    app: hello
spec:
  containers:
  - name: hello-container
    image: tmkube/hello
    ports:
    - containerPort: 8000
```

ini,toml

# YAML

- [json2yaml.com](https://json2yaml.com)

## JSON to YAML

## Convert JSON to YAML online

## YAML vs JSON

**determine which format is right for you**

## JSON

stands for javascript object notation

- records separated by commas
- keys & strings wrapped by double quotes
- good choice for data transport

## YAML

stands for YAML ain't markup language and is a superset of JSON

- lists begin with a hyphen
- dependent on whitespace / indentation
- better suited for configuration than json

**privacy notice**

- analytics and adsense are run on the site which utilize cookies
- **here is a version of the site without adsense and analytics**
- submissions are not stored or logged
- contact: [json2yaml@protonmail.com](mailto:json2yaml@protonmail.com)

## JSON

## YAML

```

1 ---
2 # <- yaml supports comments, json does not
3 # did you know you can embed json in yaml?
4 # try uncommenting the next line
5 { foo: 'bar' }
6
7 json:
8   - rigid
9   - better for data interchange
10 yaml:
11   - slim and flexible
12   - better for configuration
13 object:
14   key: value
15   array:
16     - null_value:
17     - boolean: true
18     - integer: 1
19     - alias: &example aliases are like variables
20     - alias: *example
21 paragraph: >
22   Blank lines denote
23
24   paragraph breaks
25 content: |-
26   Or we
27   can auto
28   convert line breaks
29   to save space
30 alias: &foo
31   bar: baz
32 alias_reuse: *foo

```

# docker-compose.yaml

```
version: '3.1'

services:
  ghost:
    image: ghost:4.12
    container_name: ghost
    hostname: ghost
    restart: always
    ports:
      - 80:2368
    expose:
      - 2368
    volumes:
      - ./volume/var/lib/ghost/content:/var/lib/ghost/content
    depends_on:
      - db
    environment:
      # see https://ghost.org/docs/config/#configuration-options
      database__client: mysql
      database__connection__host: db
      database__connection__user: root
      database__connection__password: <mysql root 비밀번호>
      database__connection__database: ghost

  db:
    image: mysql:5.7
    container_name: ghost_mysql
    hostname: ghost_mysql
    restart: always
    volumes:
      - ./volume/var/lib/mysql:/var/lib/mysql
    environment:
      MYSQL_ROOT_PASSWORD: <mysql root 비밀번호>
```

끝