

(Container) Image

A static(==immutable) file with executable code that can create a container on a computing system.

Container Images: Architecture and Best Practices

Container

정의 "A container is a standard unit of software that packages up code and all its dependencies so the application runs quickly and reliably from one computing environment to another."

docker docs

비교 대상

Virtual Machine

VM includes a full copy of an operating system



How to Get Started with Docker

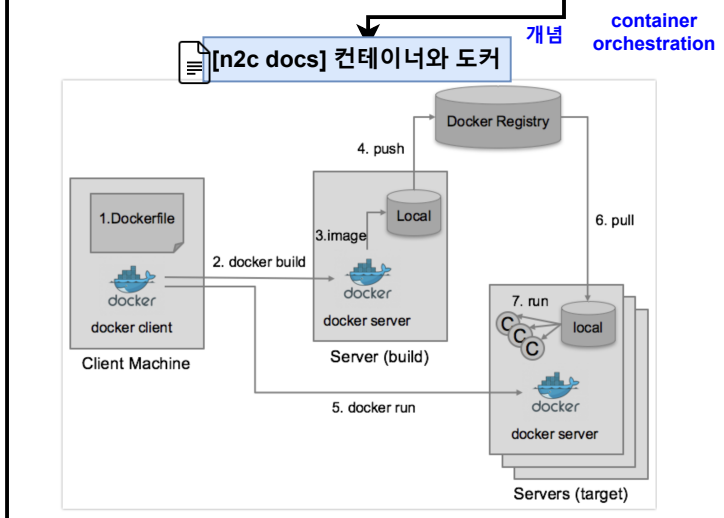
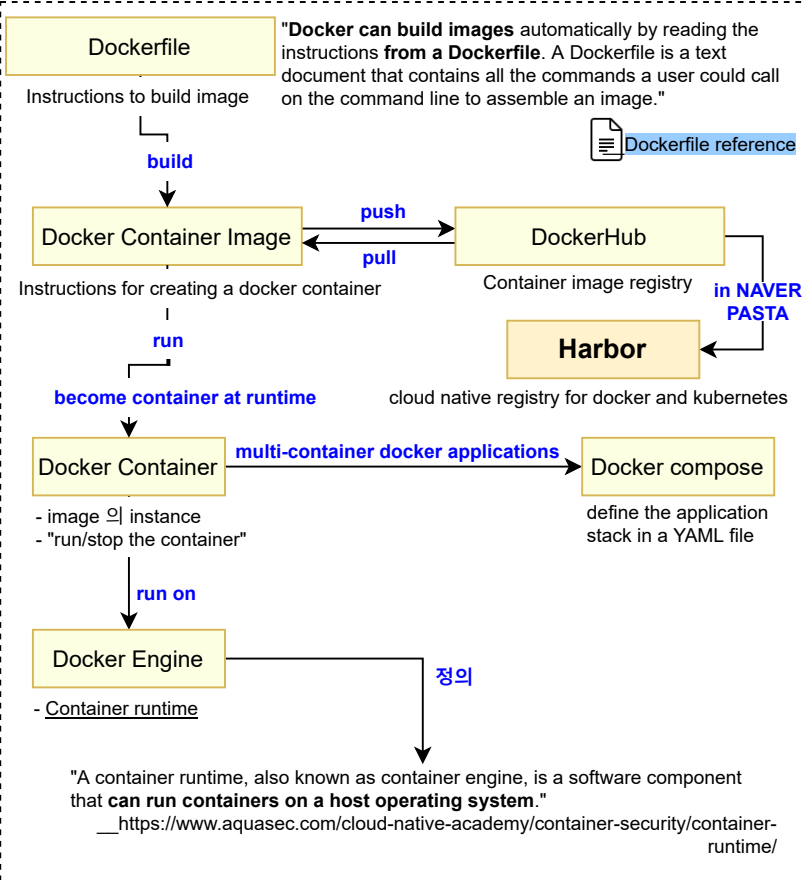
"An open platform for developing, shipping, and running applications (in a loosely isolated environment called a container.)"

docker docs 'overview'

Docker

기본 기술

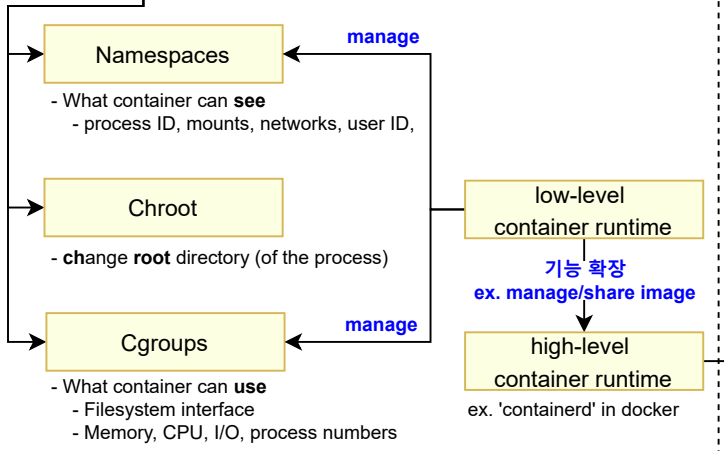
구성요소



GOTO 2018 "Containers from scratch"

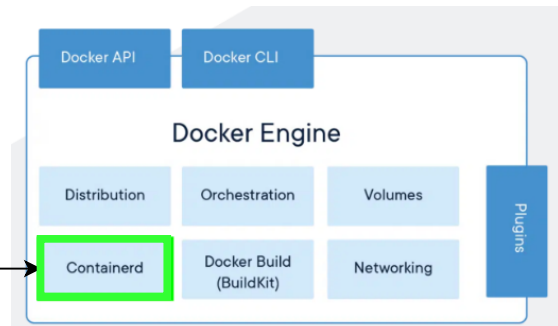
Linux container

- 리눅스 커널 레벨에서 격리된, 가상화 공간
- 독립된 환경에서 실행된 것처럼 보이는, 특정한 제약 하에 있는 프로세스



왜 굳이 도커(컨테이너)를 써야하나요?

1. Snowflake Servers
2. 서버 운영의 코드화
 - 도커 파일 = 서버 운영 기록 코드화
 - 도커 이미지 = 도커 파일 + 실행 시점
3. 테스트 주도 개발의 관점에서 도커파일 바라보기



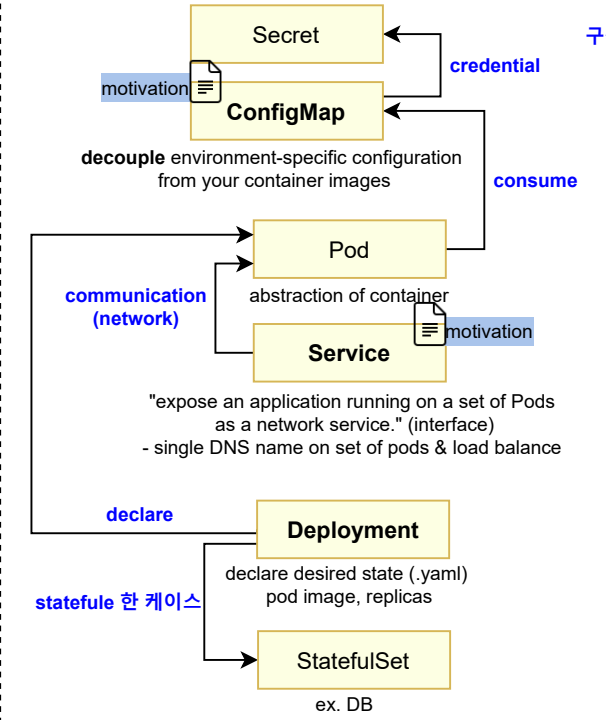
[실습 - n2c docs] Docker 사용 및 Dockerfile 작성

- 캐시된 레이어 활용 (RUN, COPY, ADD)
- 의존성을 위한 캐시 마운트
- 멀티 스테이지 빌드

컨테이너화된 어플리케이션의 관리를 자동화

- Kubernetes vs. Docker** - What is kubernetes?
- Kubernetes Explained** - What does kubernetes do & How?
- Container Orchestration** - deploy, scaling, network, monitoring

Kubernetes Crash Course for Absolute Beginners

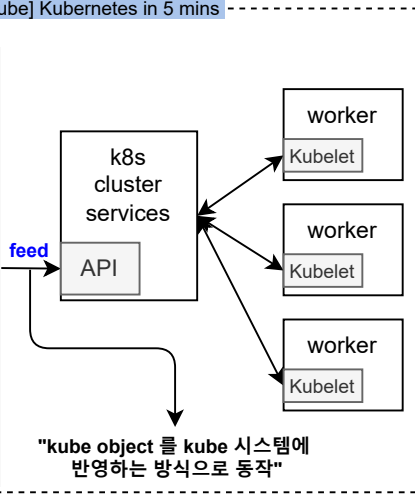


Kubernetes

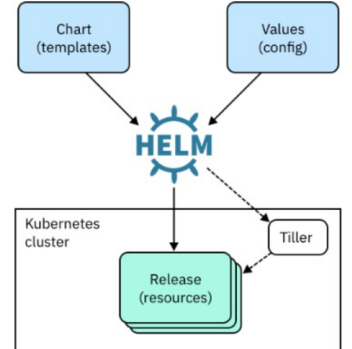
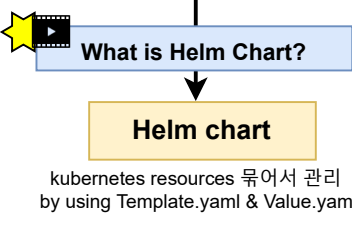
"desired state" management

```
[ app1.yaml ]
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nginx-deployment
  labels:
    app: nginx
spec:
  replicas: 3
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
        - name: nginx
          image: nginx:1.14.2
          ports:
            - containerPort: 80
```

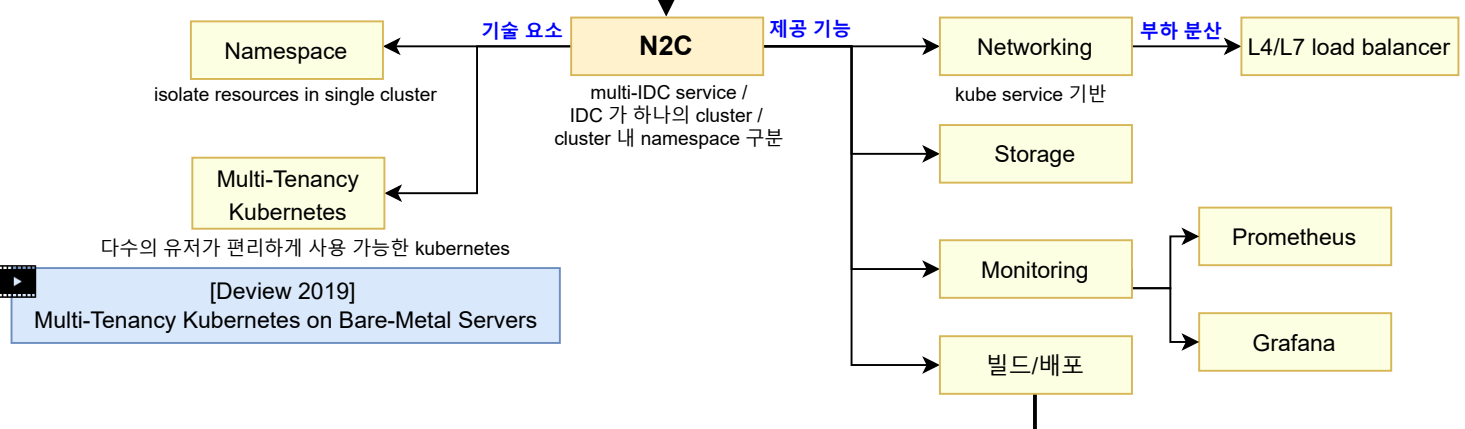
Declarative (선언적)



packaging kubernetes resources



NAVER 의 multi-tenancy Kubernetes



[n2c docs] N2C pipeline 가이드

N2C pipeline

n2c 의 빌드/배포 도구

[n2c docs] N2C workflow 가이드

N2C workflow

여러 존, 워크스페이스, 클러스터에 걸친 파이프라인에 대한 작업흐름 관리