

Docker Compose

Sang Shin
JPassion.com
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Topics

- Multi-container application
- What is and Why Docker Compose?

Multi-Container Application

Multi-Container Application

- Many applications want to use services from other containers
- Example scenarios
 - > Web application wants to use various database servers (Mongo, Redis, MySQL) as their database server

Lab:

**Exercise 1.2: Run Multi-container
Application linking them
Manually**

Exercise 3: Recreate image

1663_docker_compose.zip



What is and Why Docker Compose?

What is Docker Compose?

- Docker Compose is a tool for defining and running multi-container Docker applications
 - > In a configuration file (docker-compose.yml), you can define a set of docker containers that application requires
 - > Then, using a single command, you can start and stop all the services in a single host

Why Docker Compose?

- Docker Compose allows you to
 - > Create multiple isolated environments on a single host
 - > Preserve volume data when creating containers
 - > Re-create containers that have been updated
 - > Use variables and move compositions between environments

Docker Compose Usage Scenarios

- Create a development environment
 - > with all the required services started only using your own machine. In other words, stop to prepare your development environment manually over and over again in your own or different machines.
- Automate test environments
 - > with the same characteristics than the production environments and run integration tests.
- Single hosts deployments
 - > that is use a machine with different services as docker containers. The most recommended way to do so is using the Docker machine or Docker swarm because you can launch docker compose remotely from your laptop in a safe way without requiring SSH.

Docker commands

- `docker-compose up`
 - > Start all containers
- `docker-compose stop`
 - > Stop all containers

Lab:

**Exercise 4,5: Running Multi-Container
Application with Docker Compose**
1663_docker_compose.zip



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