

Docker-compose

By



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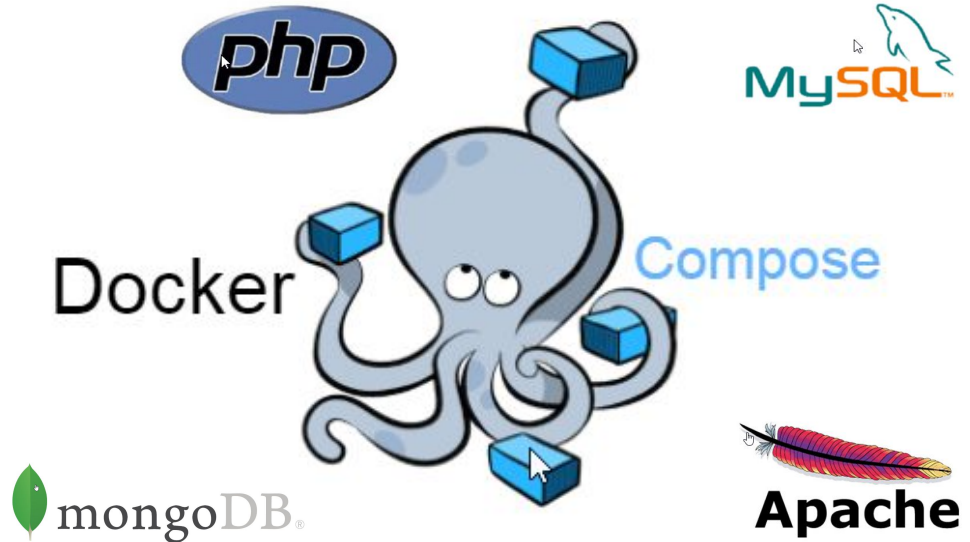
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Docker-compose

- Docker-compose is a tool for defining and running multi-container Docker applications.



Docker-Compose

- Why: configure relationships between containers
- Why: save our docker container run settings in easy-to-read file
- Why: create one-liner developer/testing environment startups

Docker-compose

- Comprised of 2 separate but related things •

1. YAML-formatted file that describes our solution options for:

- containers
- networks
- volumes •

2. A CLI tool docker-compose used for local dev/test automation with those YAML files

docker-compose.yml

- Compose YAML format has its own versions: 1, 2, 2.1, 3, 3.1
- YAML file can be used with docker-compose command for local docker automation and deployment
- docker-compose --help
- docker-compose.yml is default filename, but any can be used with docker-compose -f

Docker-compose CLI

- CLI tool comes with Docker for Windows/Mac, but separate download for Linux
- Not a production-grade tool but ideal for local development and test
- Two most common commands are
 - **docker-compose up** # setup volumes/networks and start all containers
 - **docker-compose down** # stop all containers and remove cont/vol/net

Docker-Compose Template

version: '3.1' # if no version is specified then v1 is assumed. Recommend v2 minimum

services: # containers. same as docker run

servicename1: # a friendly name. this is also DNS name inside network

image: # Optional if you use build:

command: # Optional, replace the default CMD specified by the image

environment: # Optional, same as -e in docker run

volumes: # Optional, same as -v in docker run

servicename2:

volumes: # Optional, same as docker volume create

networks: # Optional, same as docker network create

Docker Compose: Hands-On:



An aerial photograph of a city skyline at dusk or dawn. The sky is a mix of dark blue, purple, and orange. The city is densely packed with skyscrapers, many of which have their lights on. The Empire State Building is prominent in the center, with its top lit up. Other tall buildings are visible on the right side of the frame. The overall scene is a high-angle, wide shot of a major metropolitan area.

Testing & Deployment Real-Time Use Case