

Docker Tutorial

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Part 1.

Introduction

What is Docker (1/3)



"Docker is an open platform for developers and sysadmins to build, ship, and run distributed applications. Consisting of Docker Engine, a portable, lightweight runtime and packaging tool, and Docker Hub, a cloud service for sharing applications and automating workflows, Docker enables apps to be quickly assembled from components and eliminates the friction between development, QA, and production environments. As a result, IT can ship faster and run the same app, unchanged, on laptops, data center VMs, and any cloud."

source: <https://www.docker.com/whatisdocker/>

What is Docker (2/3)

- a container manager
 - lightweight virtualisation
(host and guest systems share the same kernel)
 - based on linux namespaces and cgroups
- massively copy-on-write
 - immutable images
 - instant deployment
 - suitable for micro-services (one process, one container)

→ immutable architecture

What is Docker (3/3)

- a build system
 - images may be build from sources
 - using a simple DSL (Dockerfile)
- a set of REST APIs
 - Remote API (control the docker engine)
 - Registry API (publish/download images)
 - Swarm API (manage a clustered of docker machines)

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