Docker

Kristo Raun

Big Data Management 2025 Spring
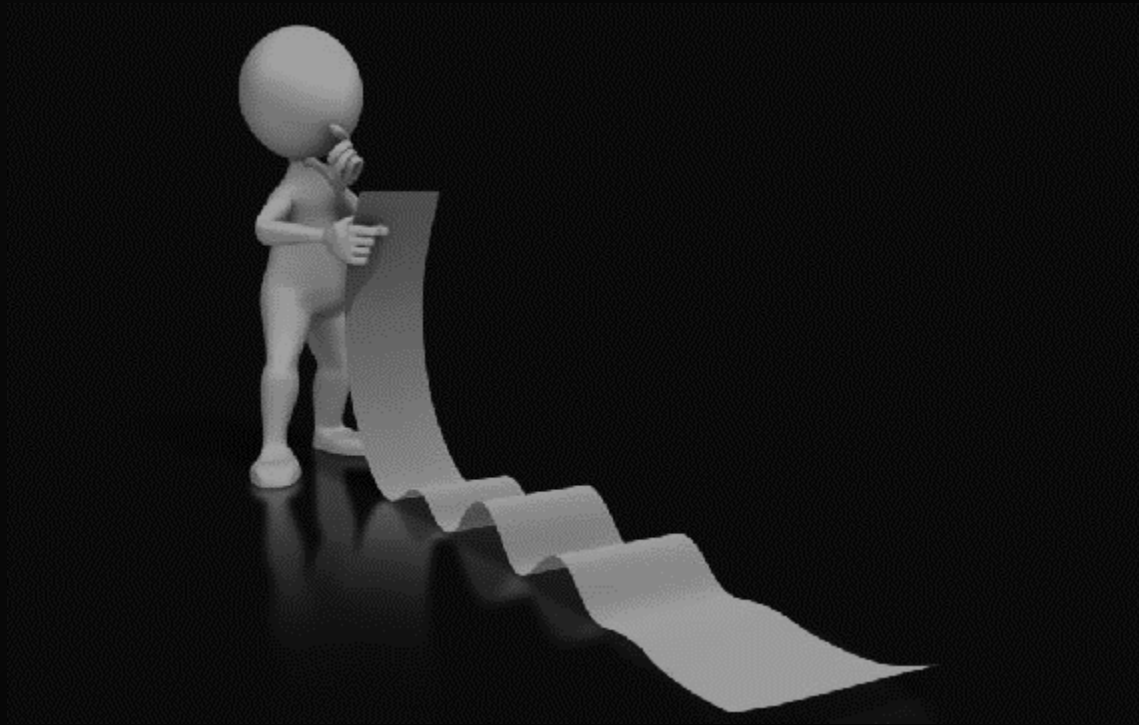
UNIVERSITY OF TARTU

What is Docker?

- Docker is an open platform for developing, shipping, and running applications.

- Docker enables you to separate your applications from your infrastructure so you can deliver software quickly.

Why Docker?

- Works on my machine
  - You just need to install:

Why Docker?

◈ Works on my machine
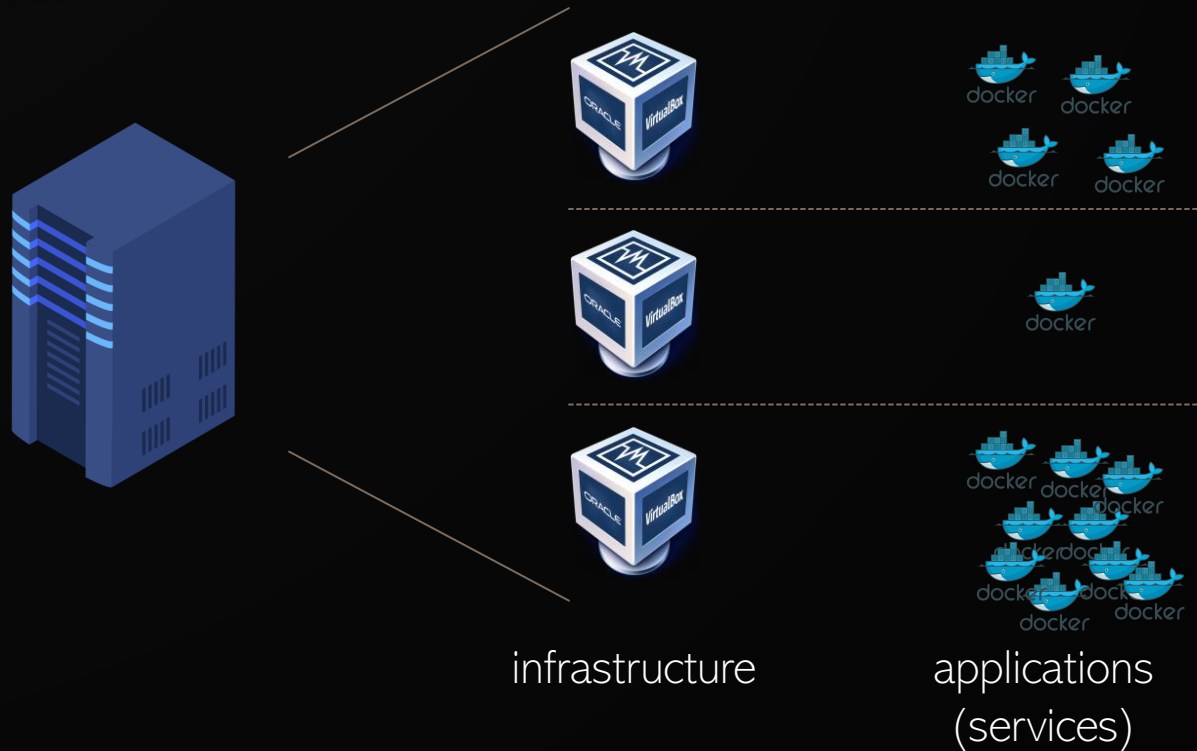
    ◈ You just need to install: ………

◈ OK, but VM?

	VirtualBox	docker
Speed	🐢	🐰
Size	🐘	🐭
Complexity	😦	😐

Why Docker?

◈ Works on my machine

　　◈ You just need to install: ....

◈ OK, but VM?

infrastructure　　　　　applications
　　　　　　　　　　　　 (services)

About

- ◈ Docker daemon (dockerd)
  - ◈ Management
- ◈ Client (eg CLI)
  - ◈ Interact with Docker daemon
- ◈ Registry (eg Docker Hub)
  - ◈ Image store
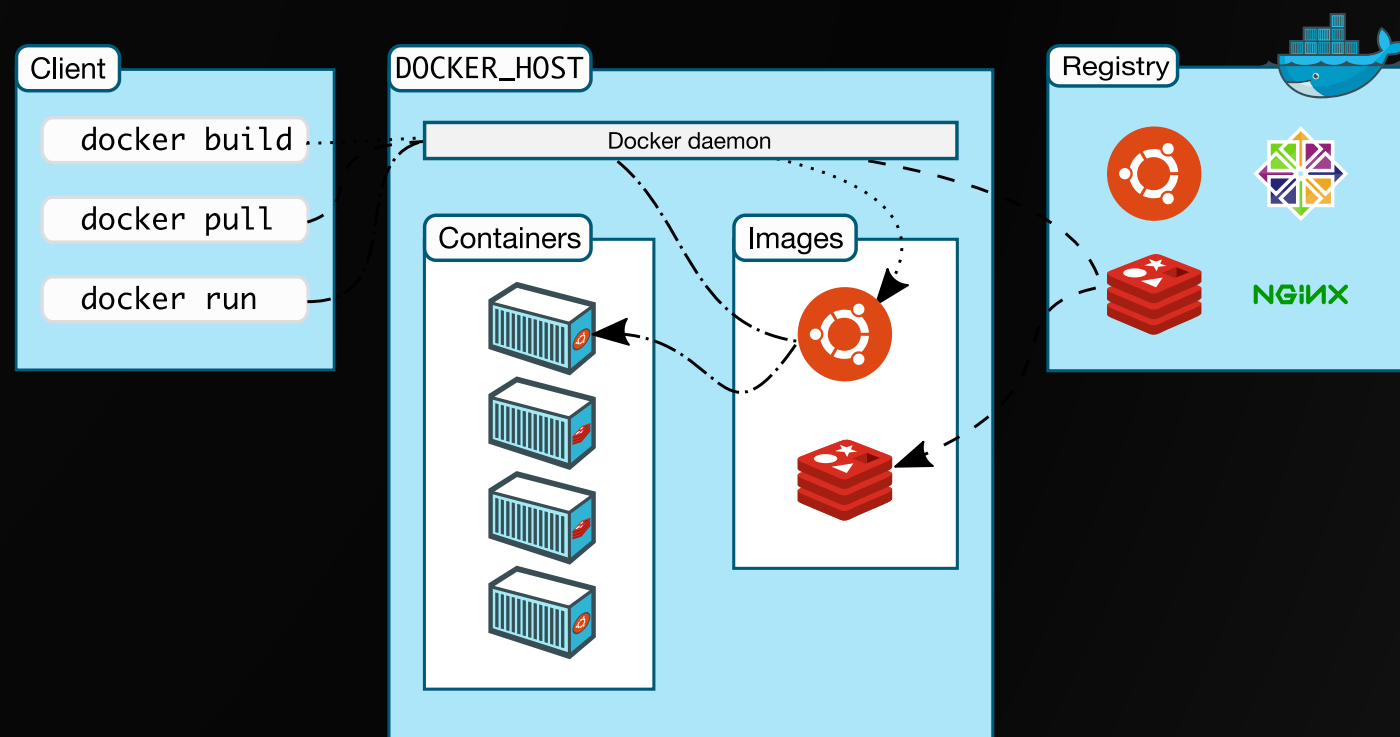
Docker objects

- ◈ Image
  - ◇ = template
  - ◇ Types
    - ◈ Images in registry
    - ◈ From Dockerfile
- ◈ Container
  - ◇ = instance
  - ◇ Has
    - ◈ Storage
    - ◈ Network

Final words…

- ◈ How we will run:
  - ◈ Docker CLI
  - ◈ Docker Compose
- ◈ Out of scope:
  - ◈ Kubernetes (K8s)