Docker Container Basics

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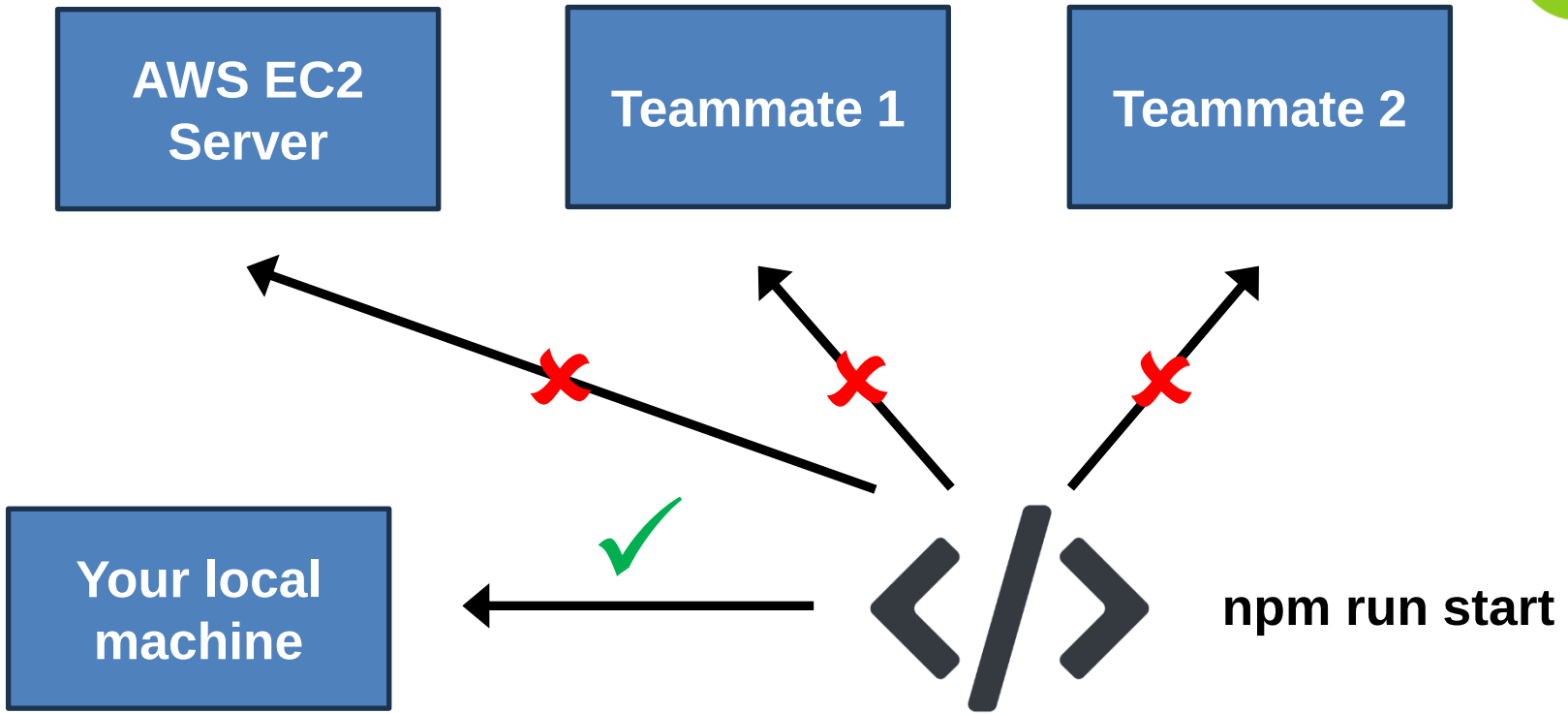
Office hours: Thursday at 9:00 – 11:00 or as an advance appointment

Agenda

- Relating Our Analogy to Docker
- What is Docker?
- Docker for Mac/Windows
- Installing Docker
- Using the Docker Client
- But Really...What's a Container?
- How's Docker Running on Your Computer?

Relating Our Analogy to Docker



Relating Our Analogy to Docker (cont.)

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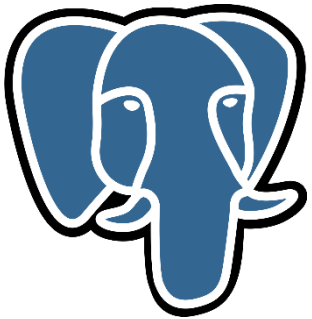
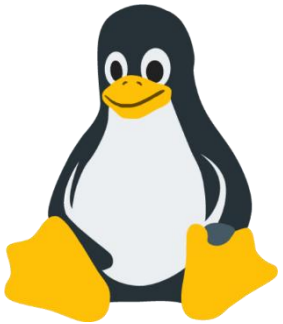
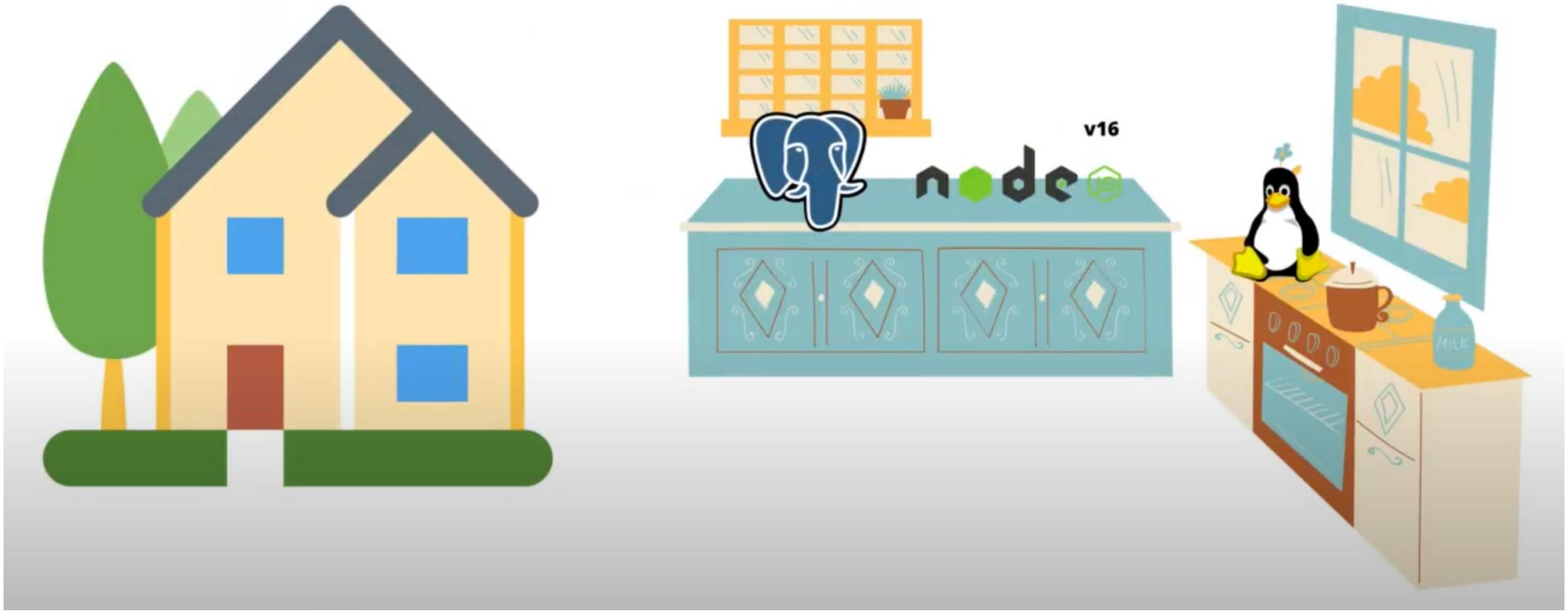
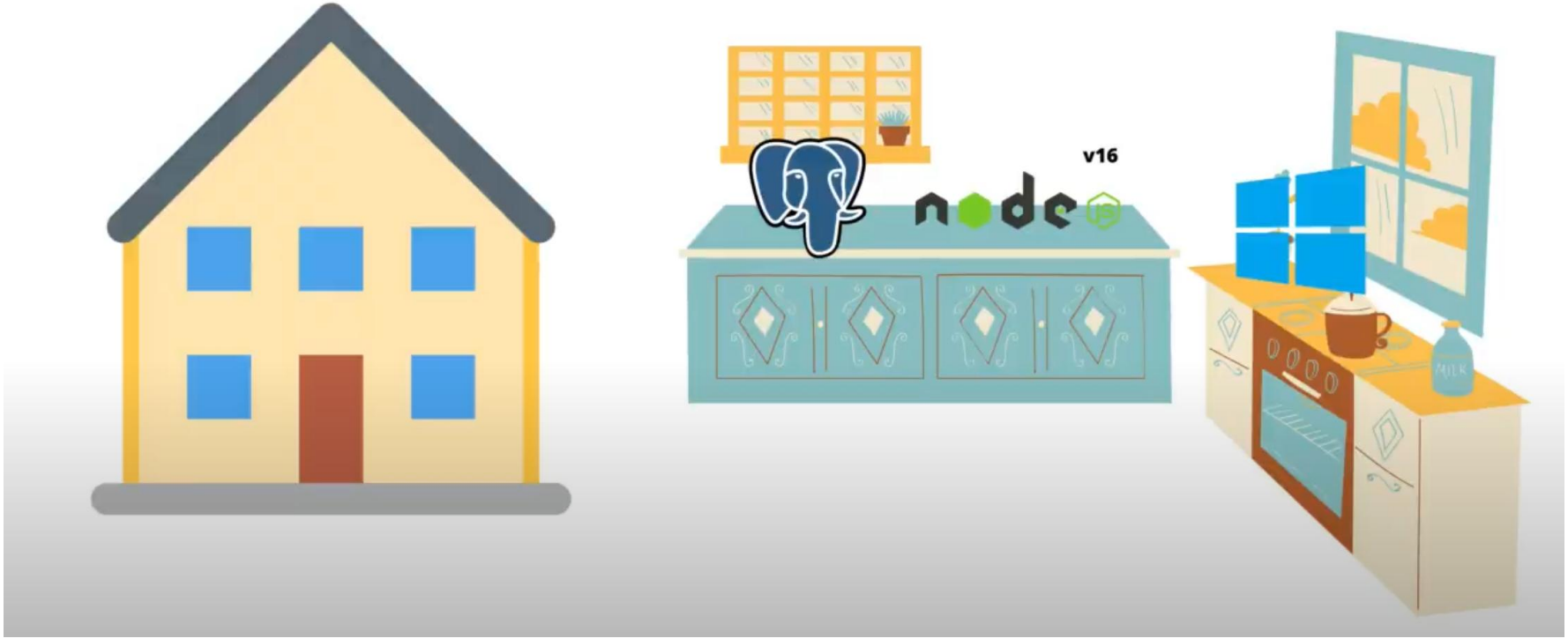




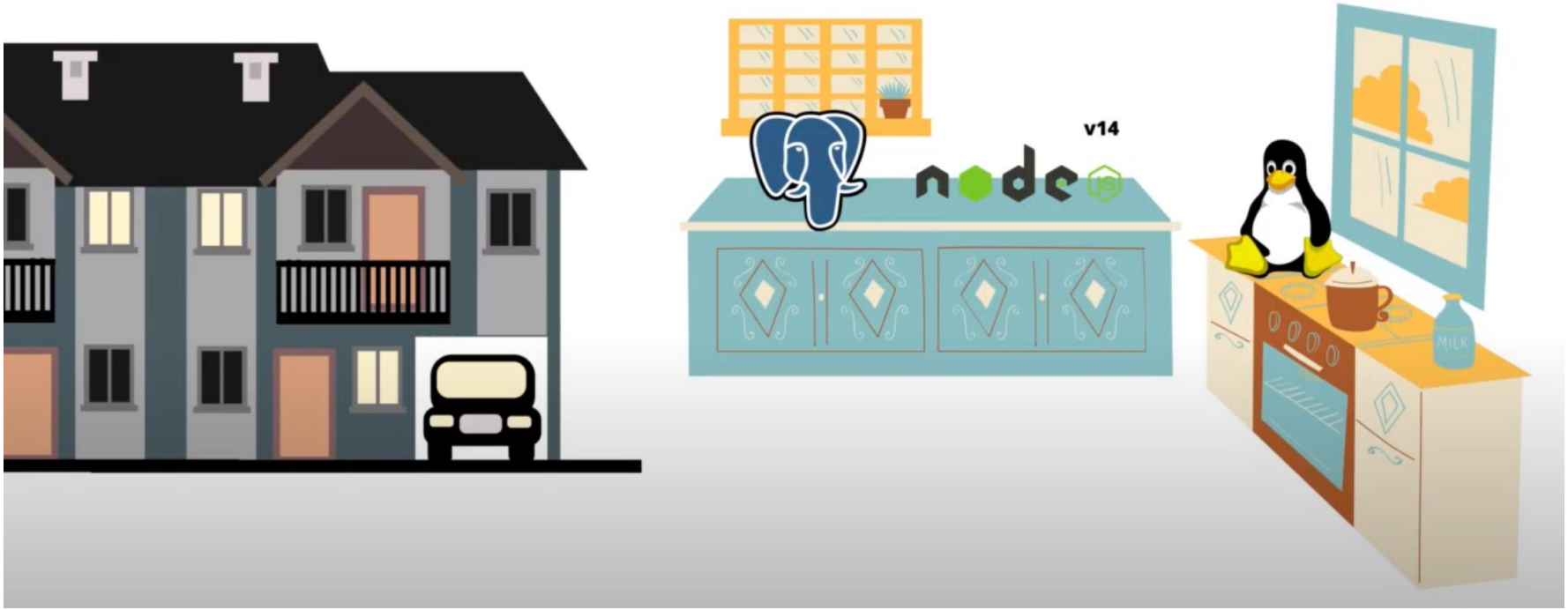
Your Environment



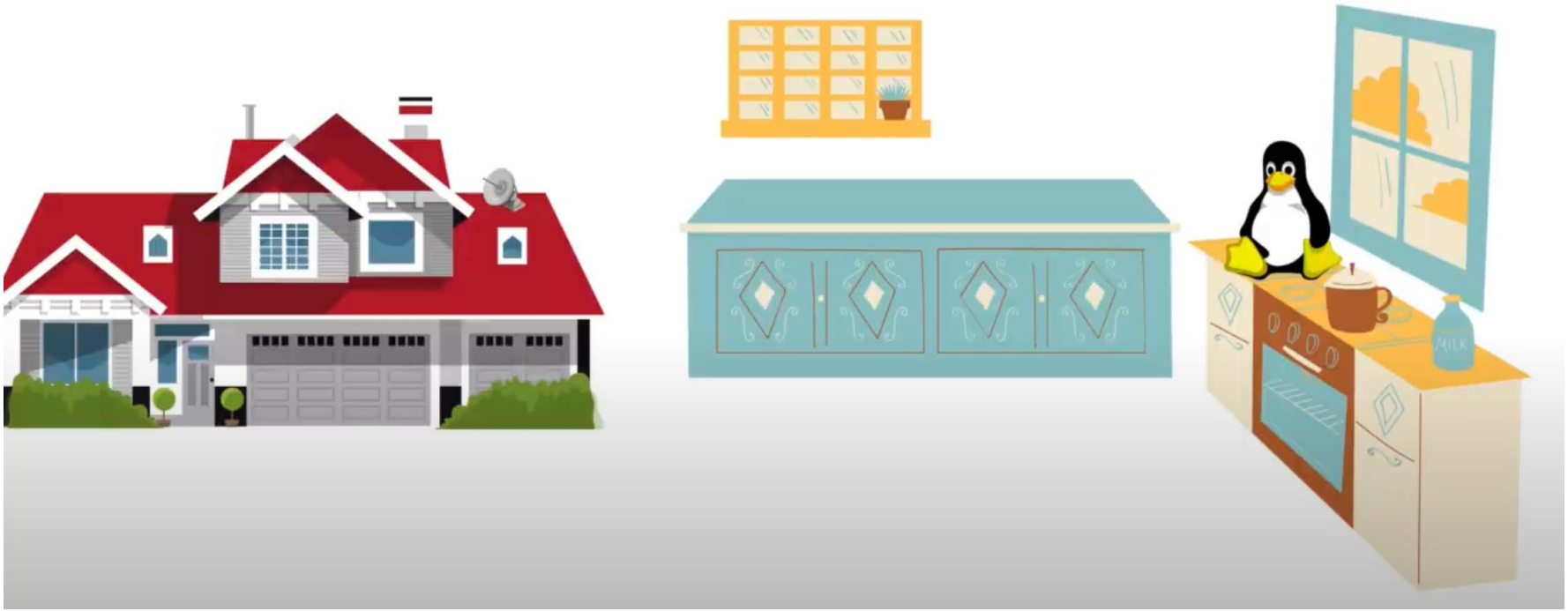
Teammate 1 Environment



Teammate 2 Environment



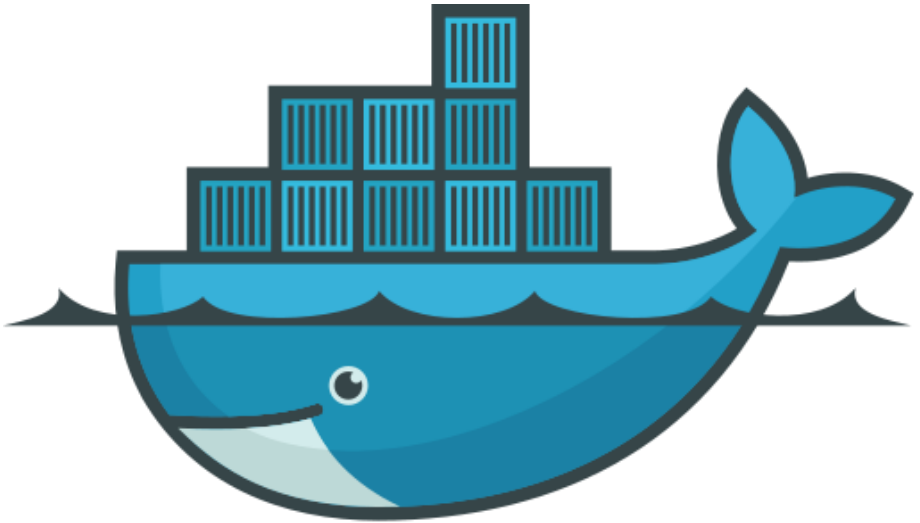
AWS EC2 Instance



Options

- Configure everyone’s environment correctly
- Run the app in isolation with all of its dependencies

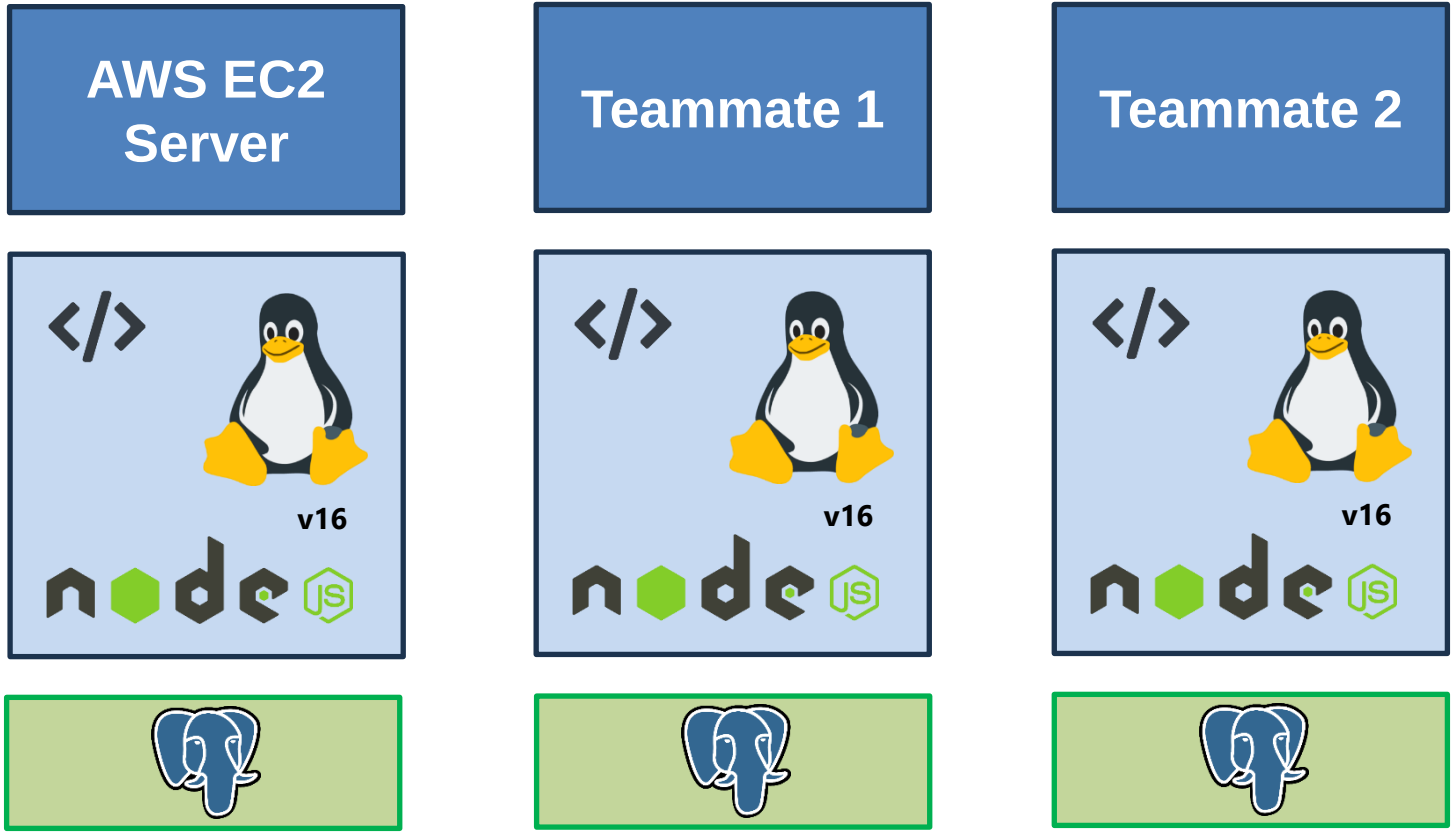
Docker



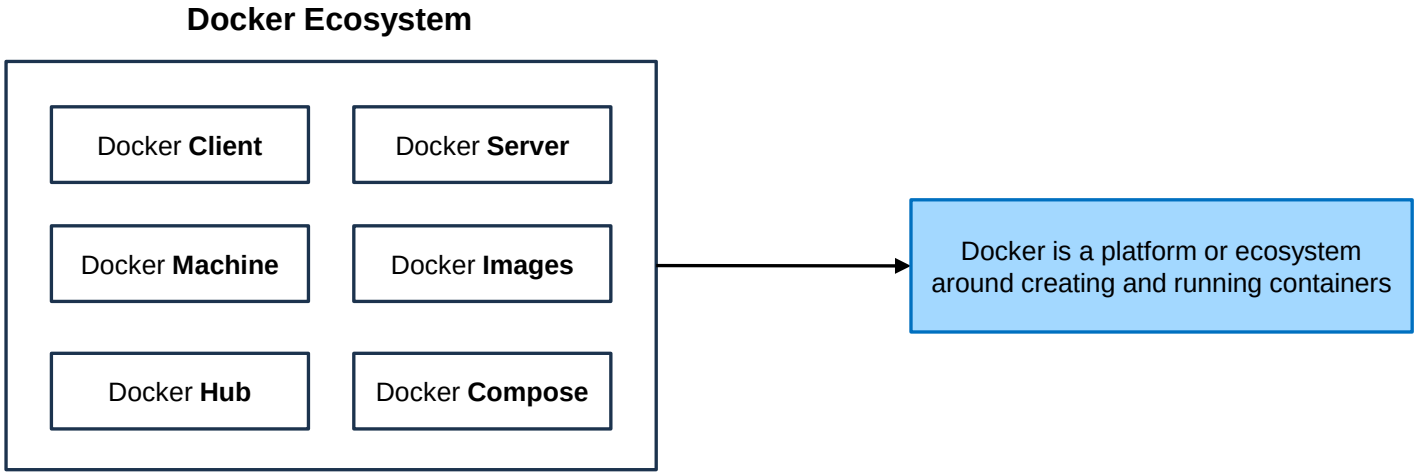
Docker (cont.)

- Docker is an open source containerization platform.
- It enables developers to package applications into containers – standardized executable components combining application source code with the operating system (OS) libraries and dependencies required to run that code in any environment.

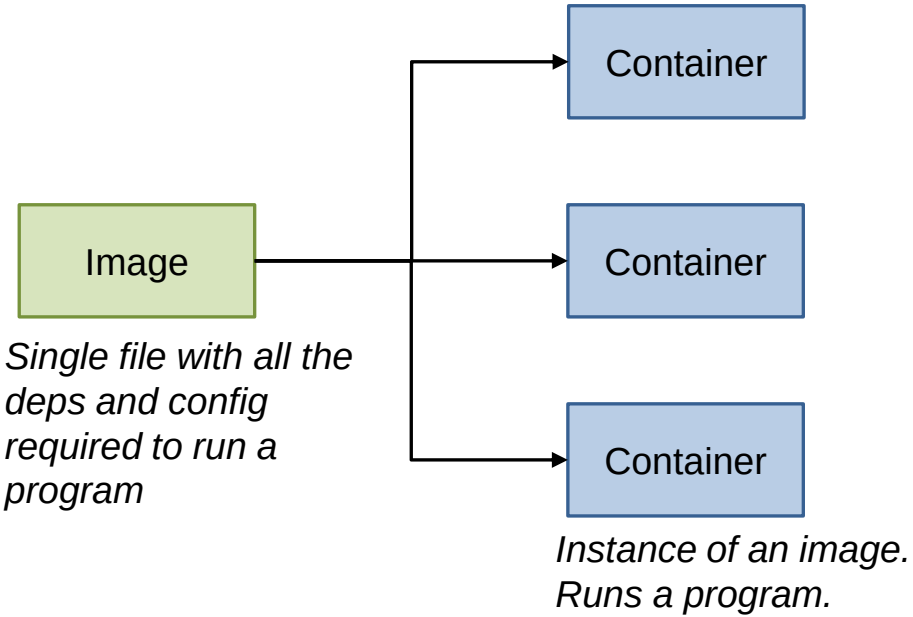
Solution



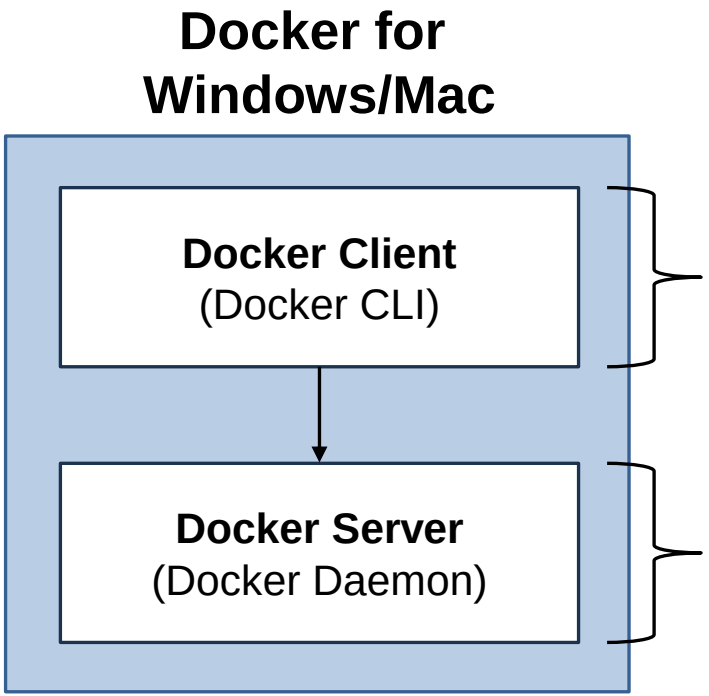
What is Docker?



What is Docker? (cont.)



Docker for Windows/Mac



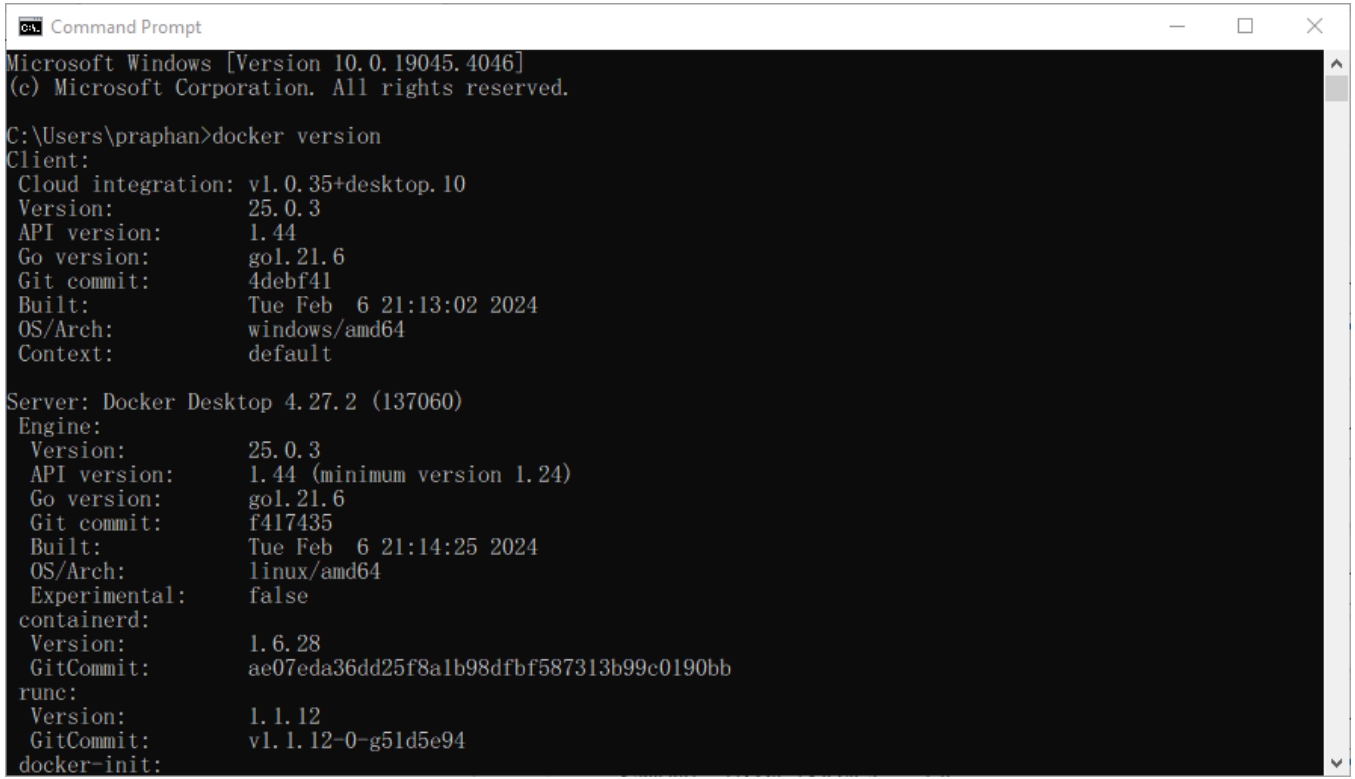
Tool that we are going to issue commands to

Tool that is responsible for creating images, running containers, etc.

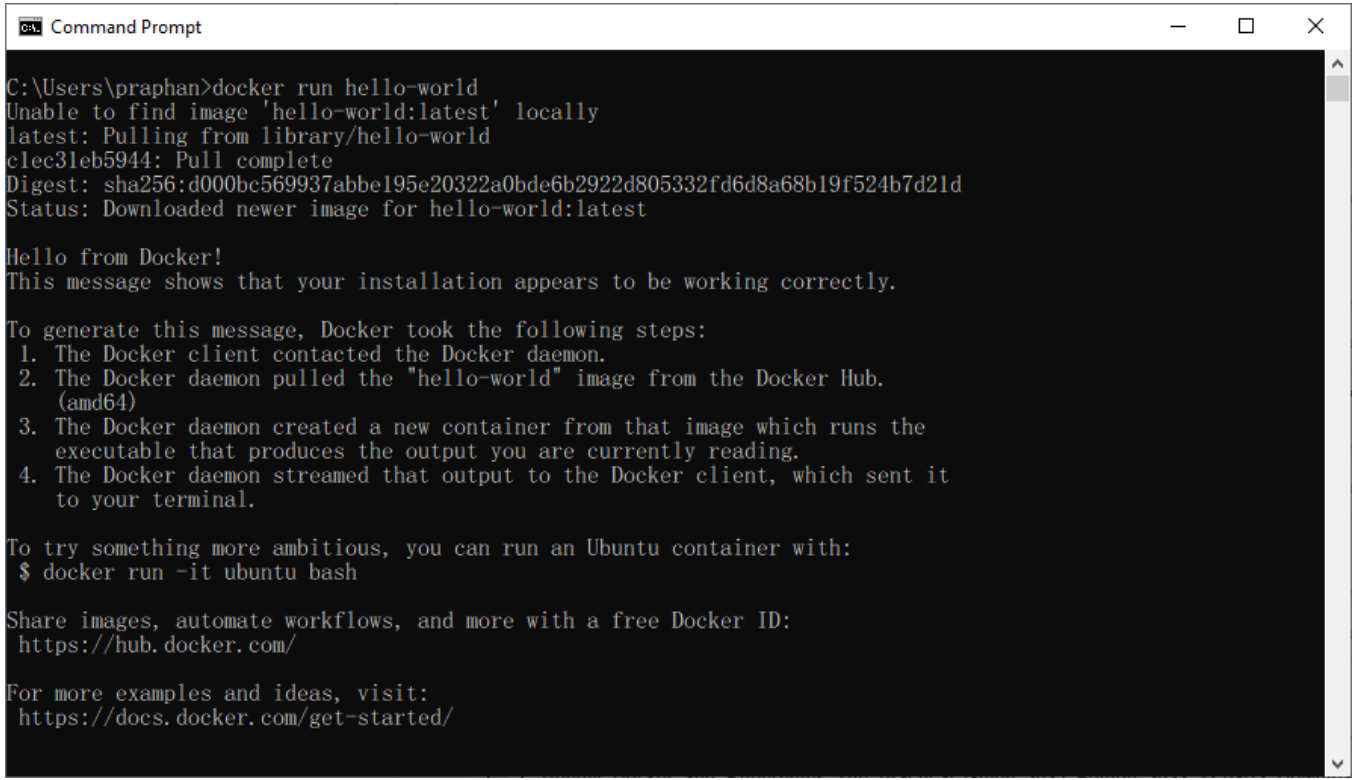
Installing Docker

- Installing Docker on macOS
  (*Installing Docker on macOS.pdf*)
- Installing Docker with WSL on Windows 10/11
  (*Installing Docker with WSL on Windows 10-11.pdf*)
- Installing Docker on Linux
  (*Installing Docker on Linux.pdf*)

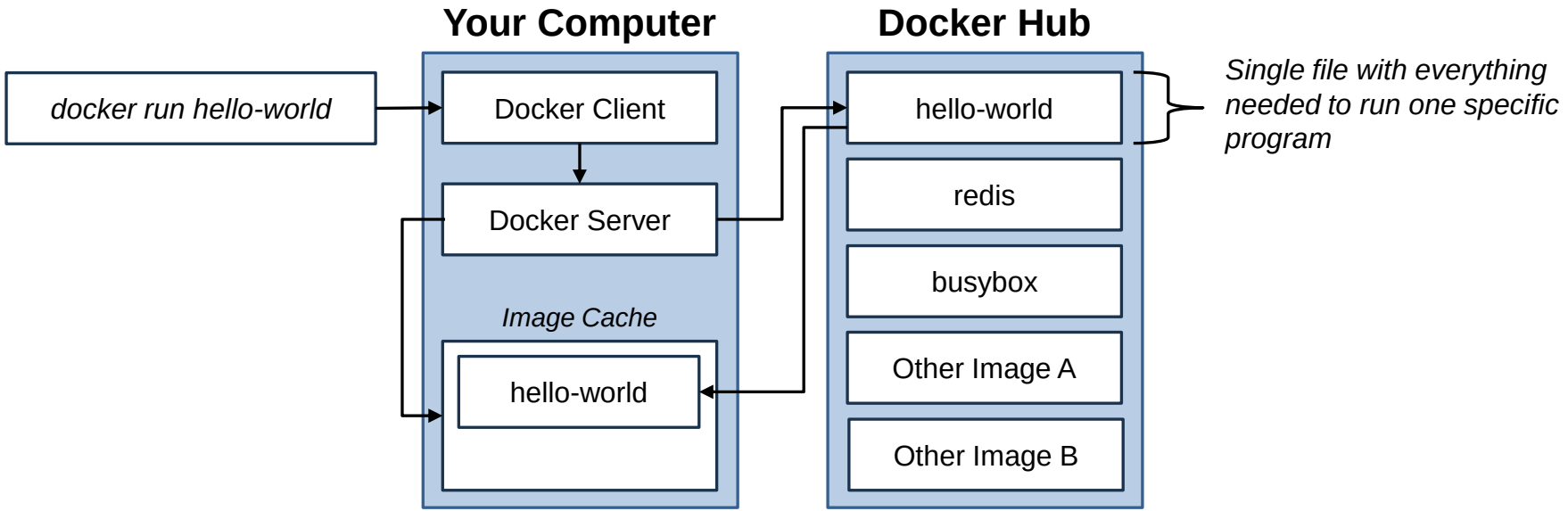
Using the Docker Client



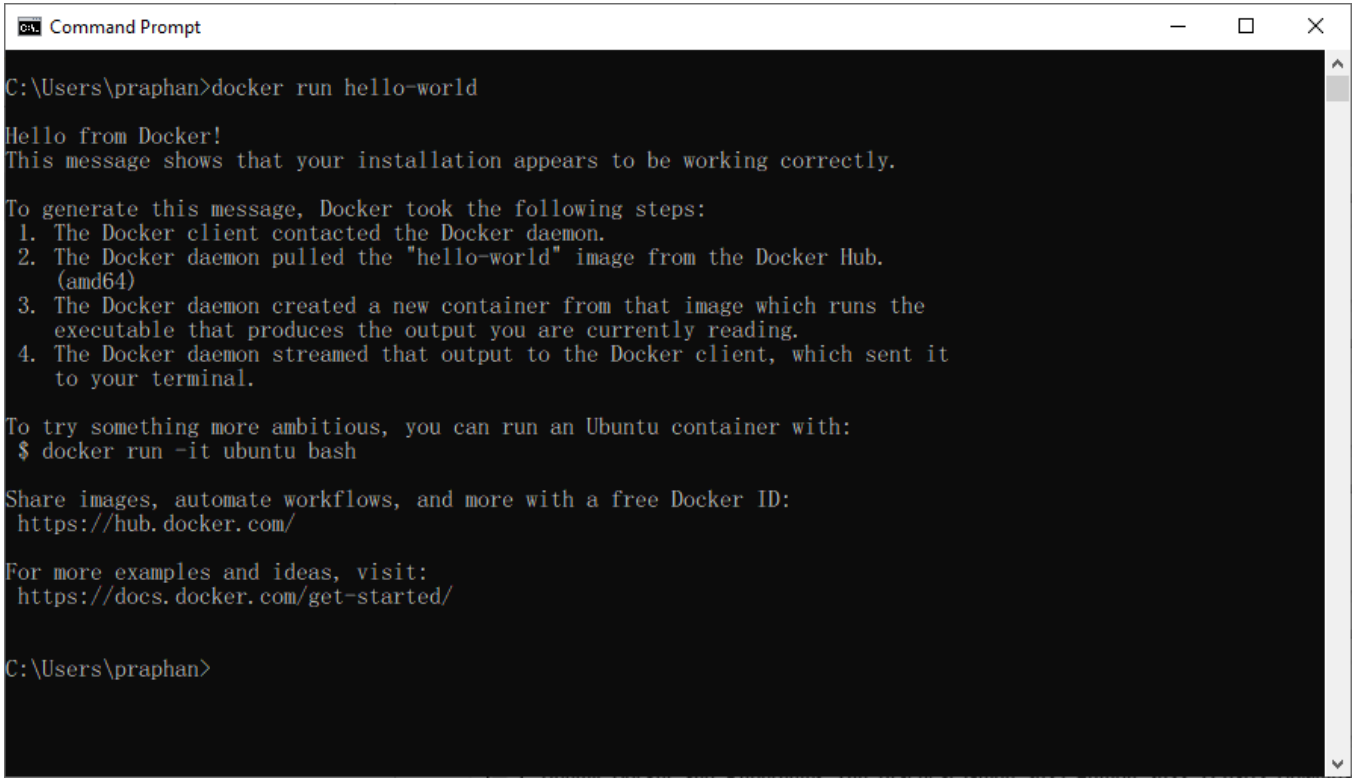
Using the Docker Client (cont.)



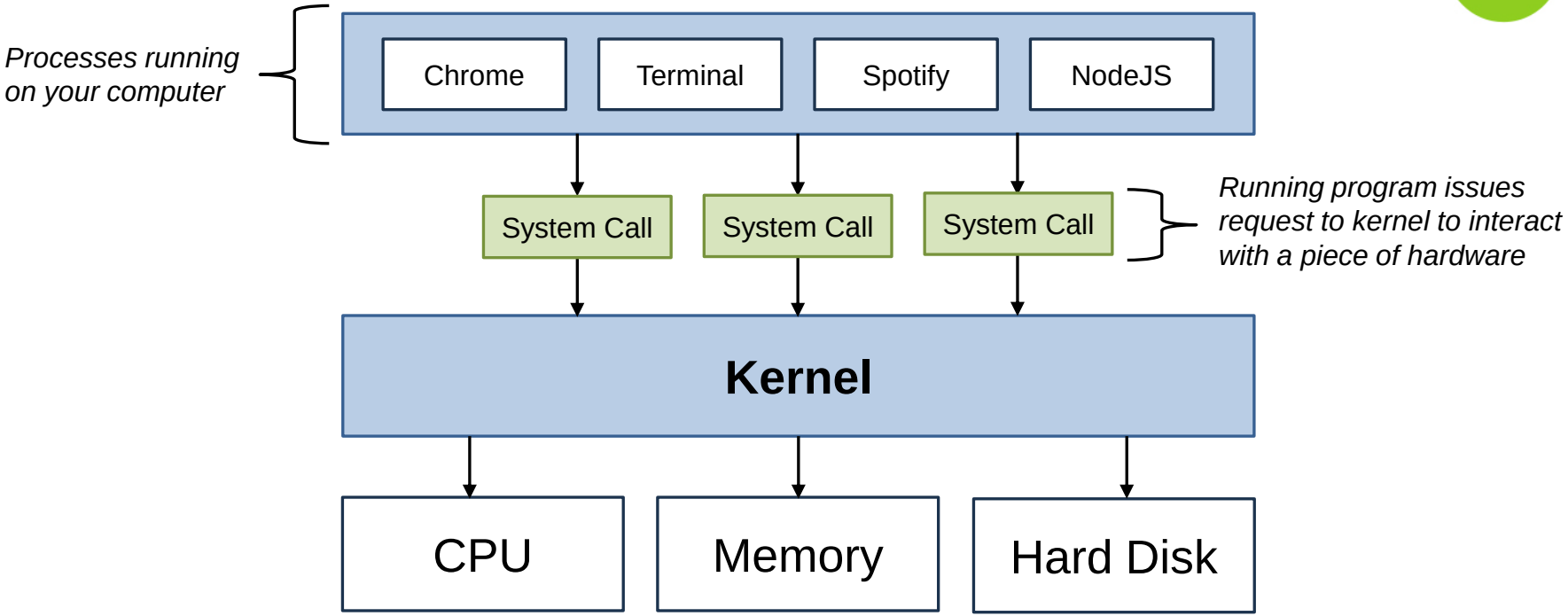
Using the Docker Client (cont.)



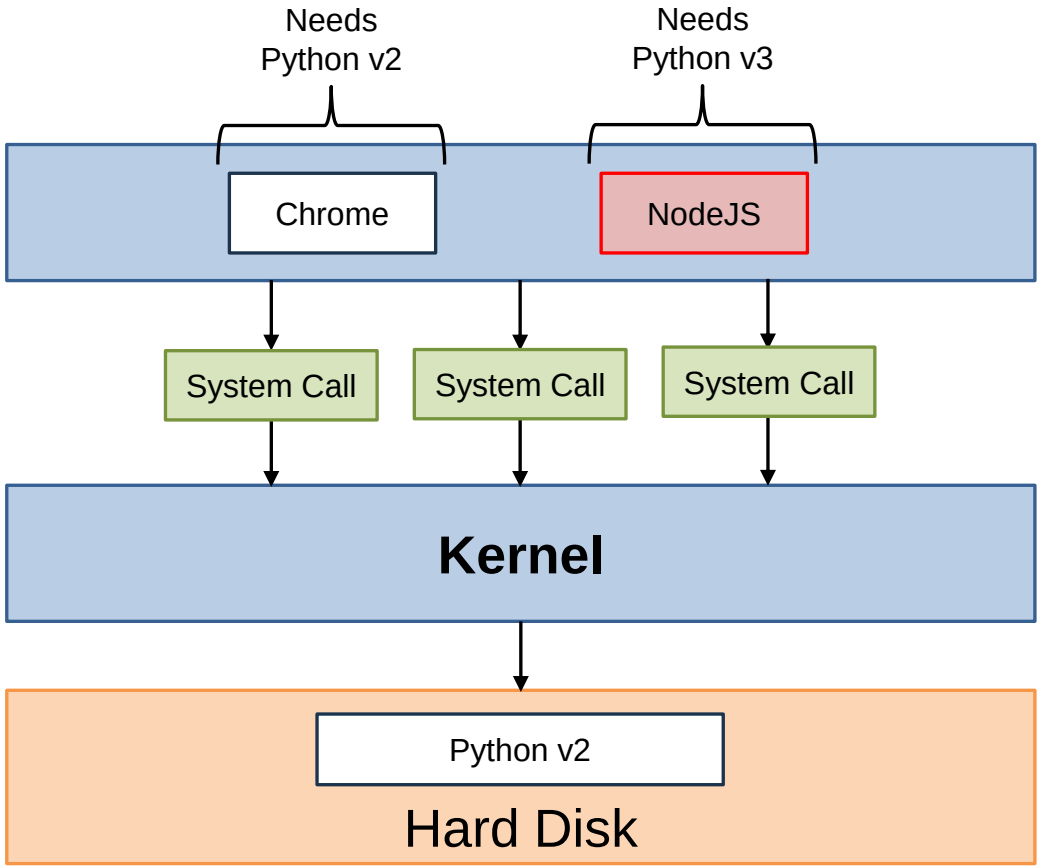
Using the Docker Client (cont.)



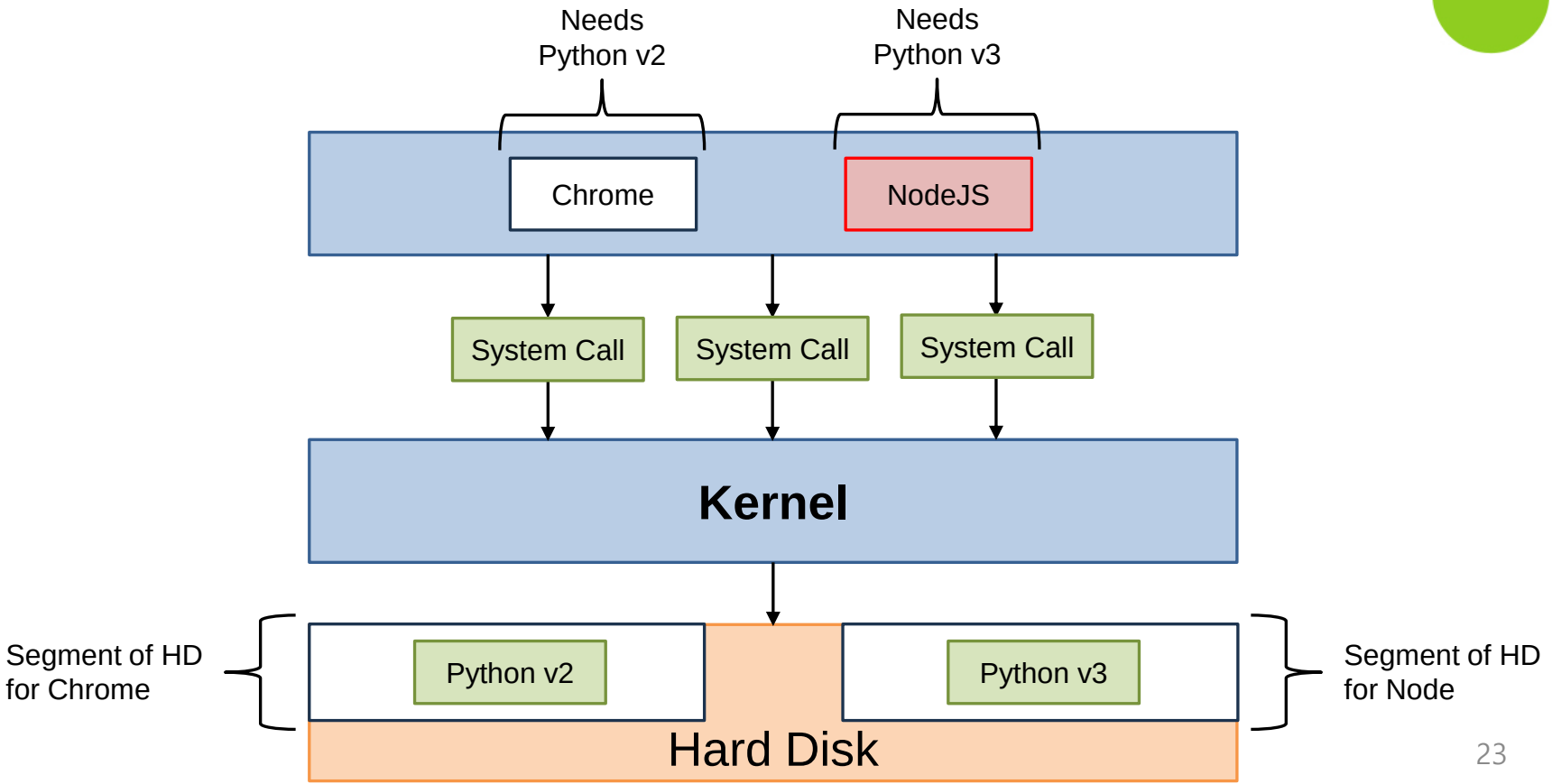
But Really...What's a Container?



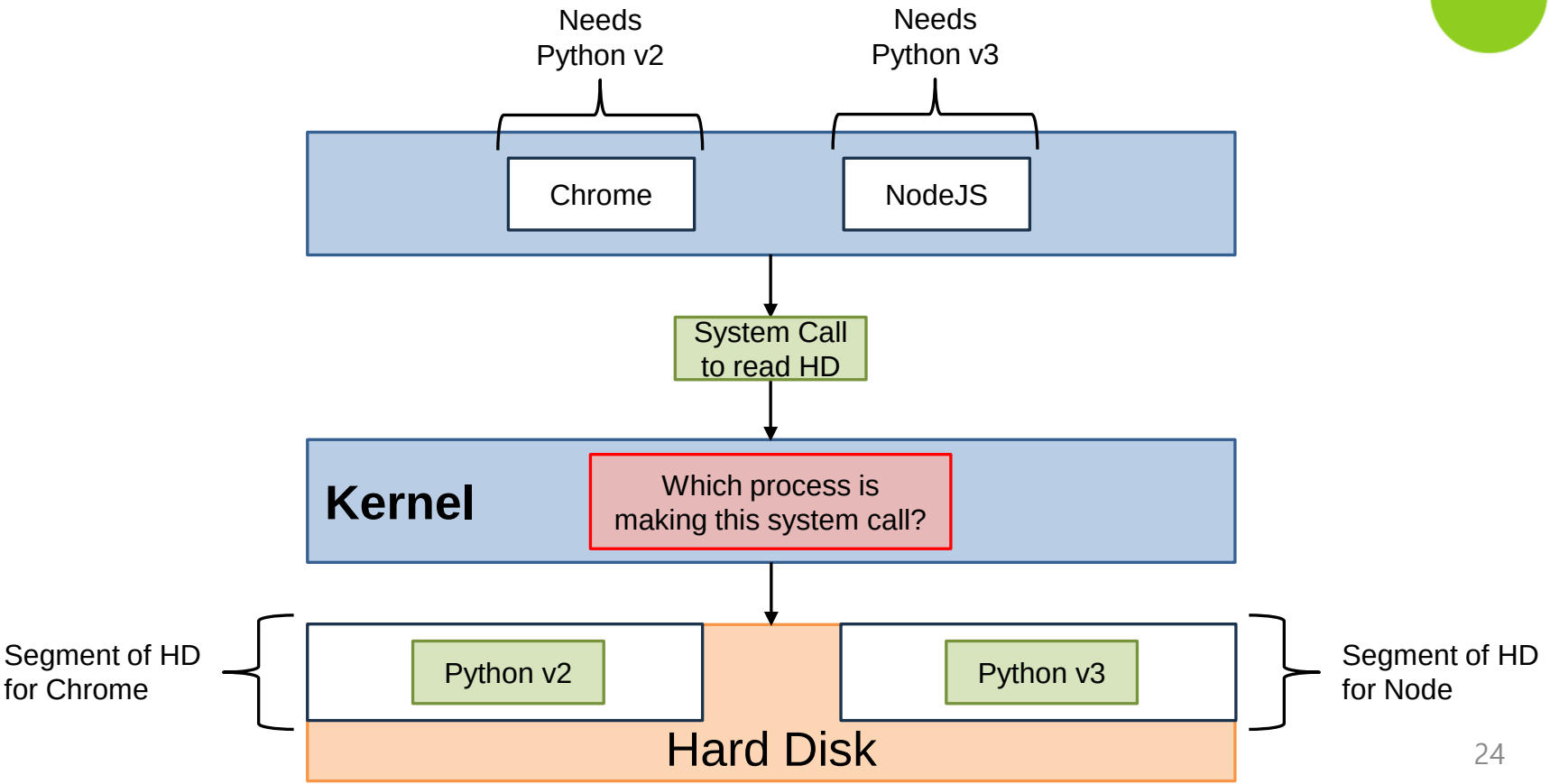
But Really...What's a Container? (cont.)



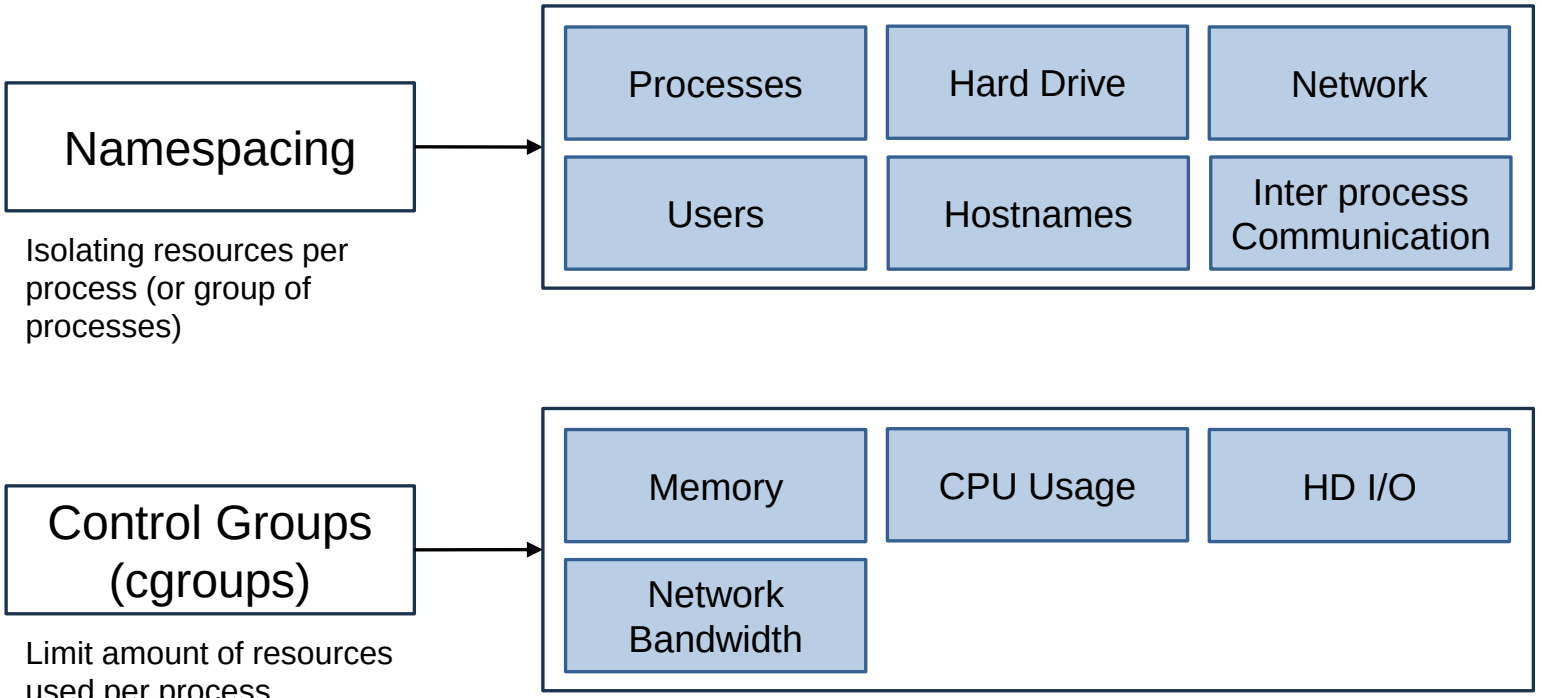
But Really...What's a Container? (cont.)



But Really...What's a Container? (cont.)



But Really...What's a Container? (cont.)



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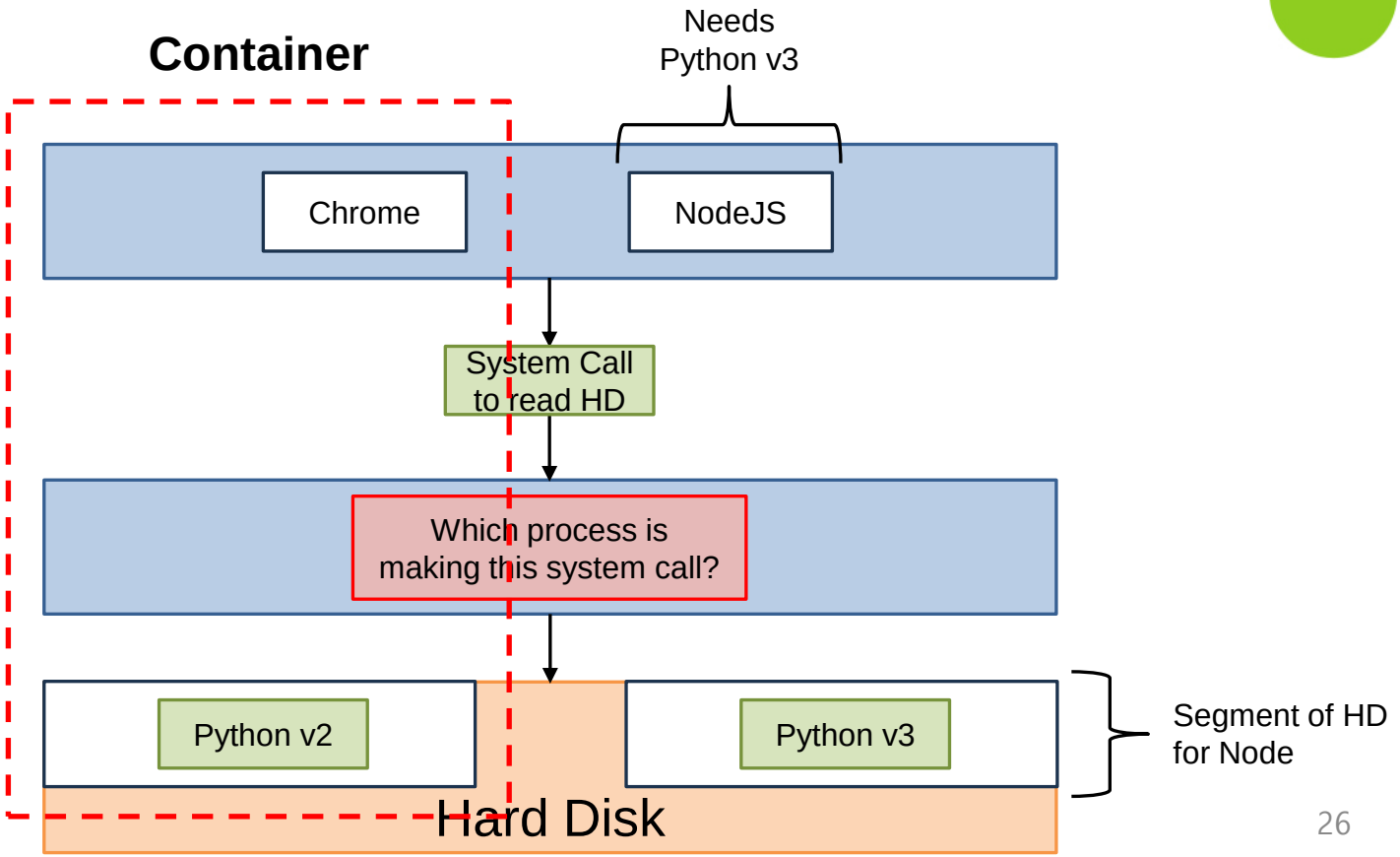

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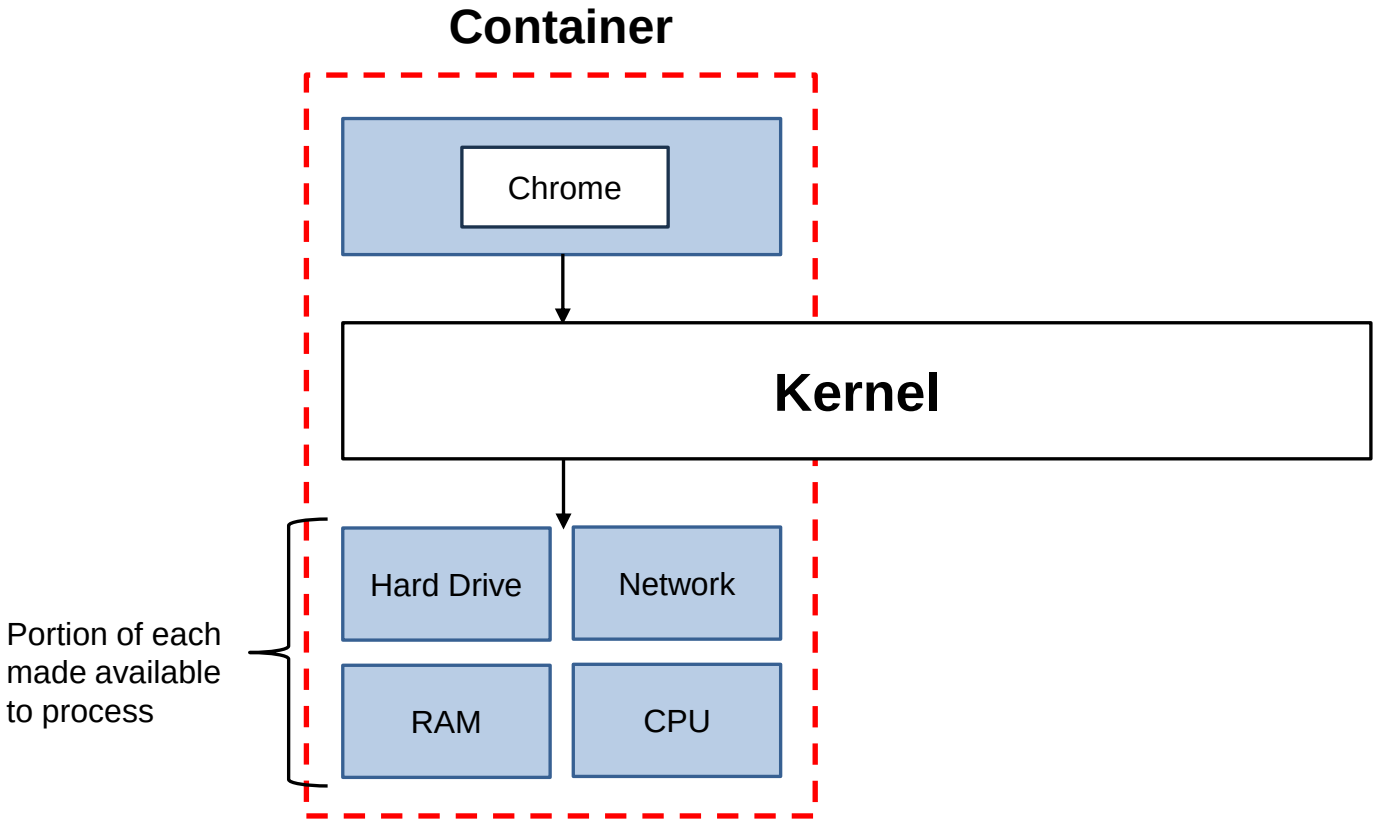

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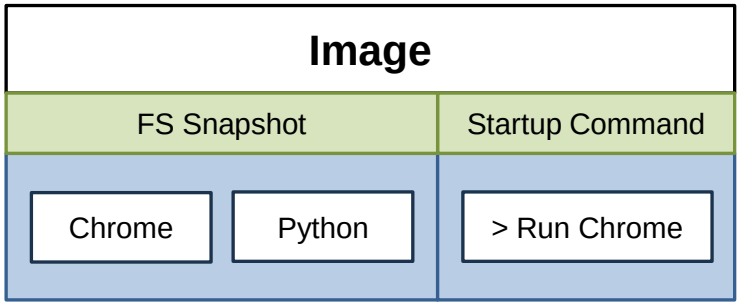

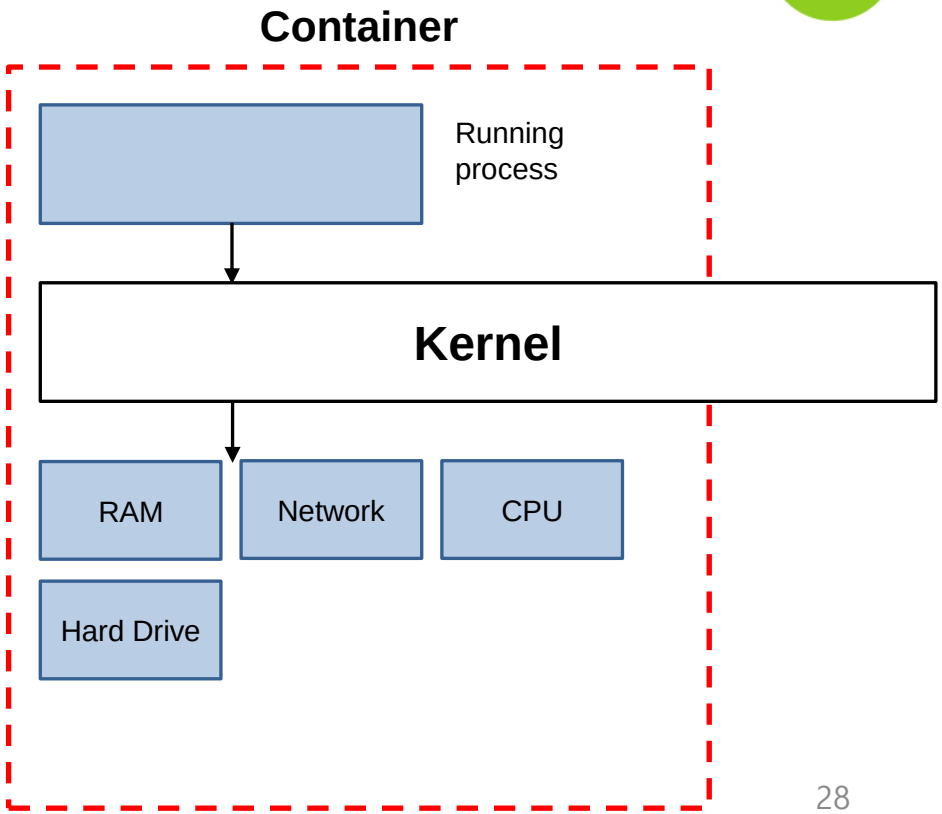

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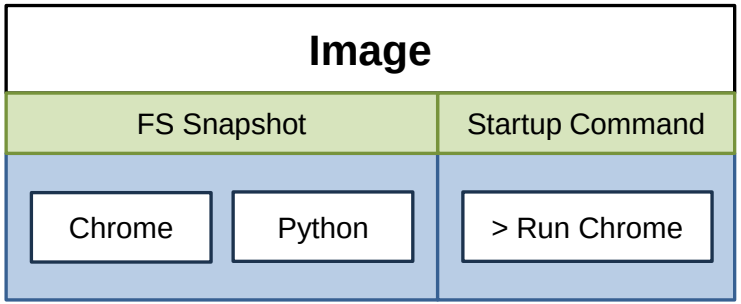

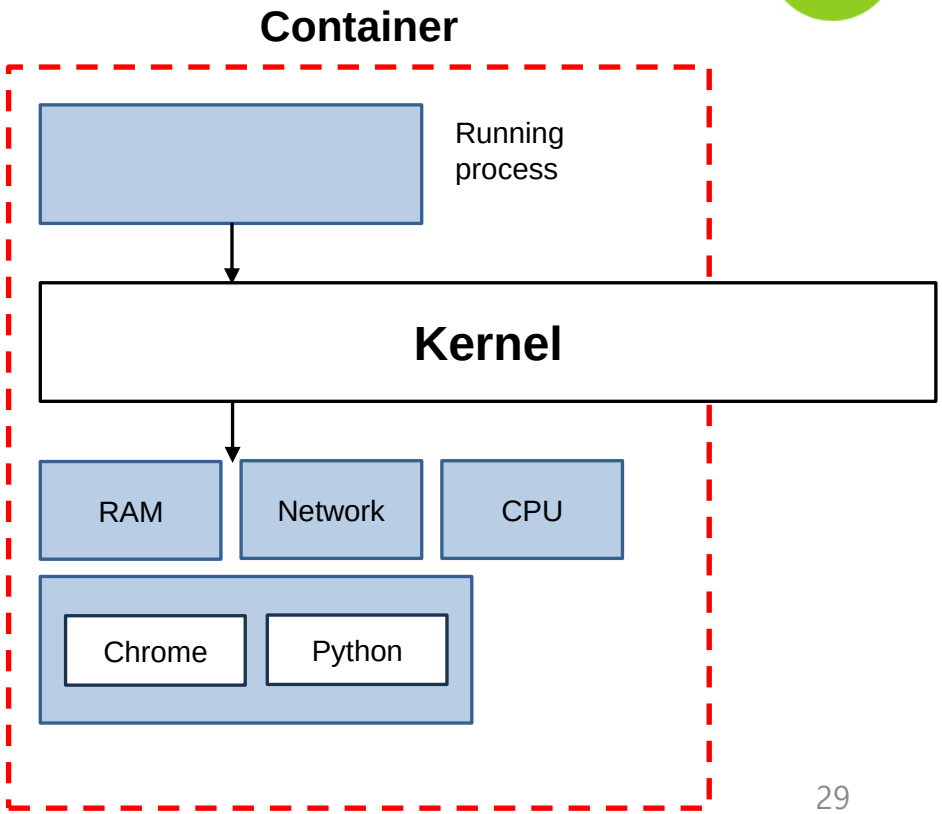

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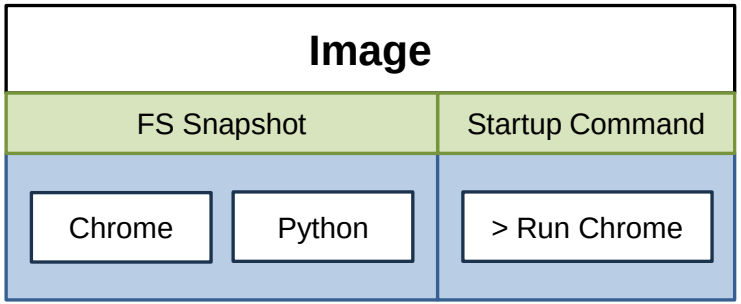
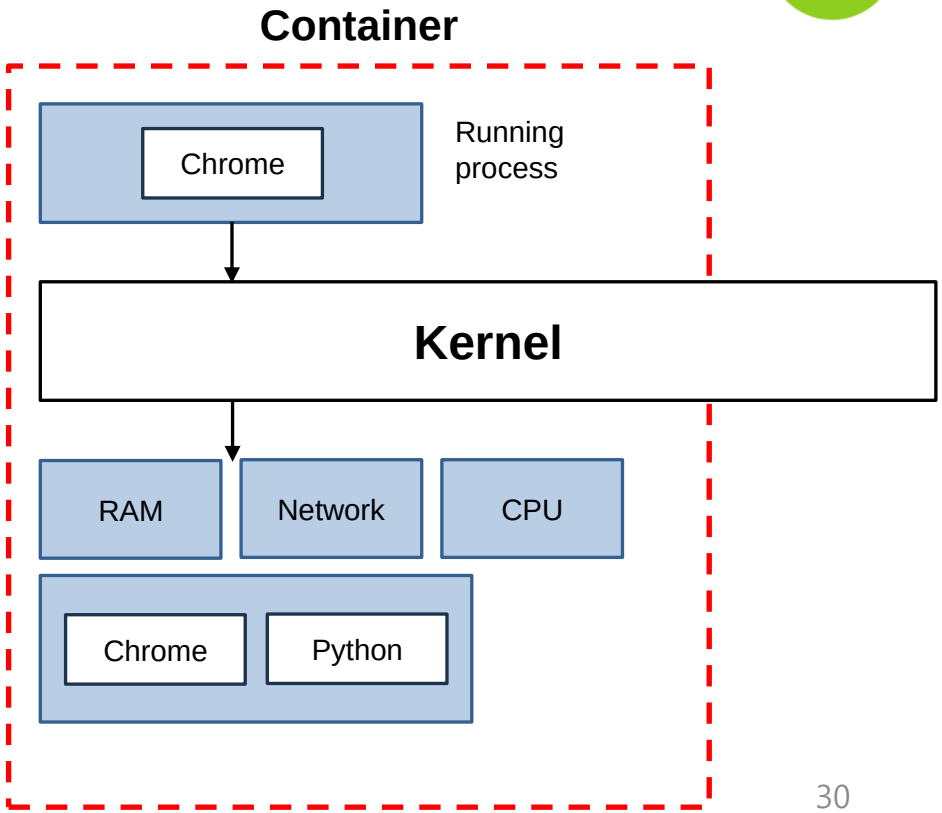
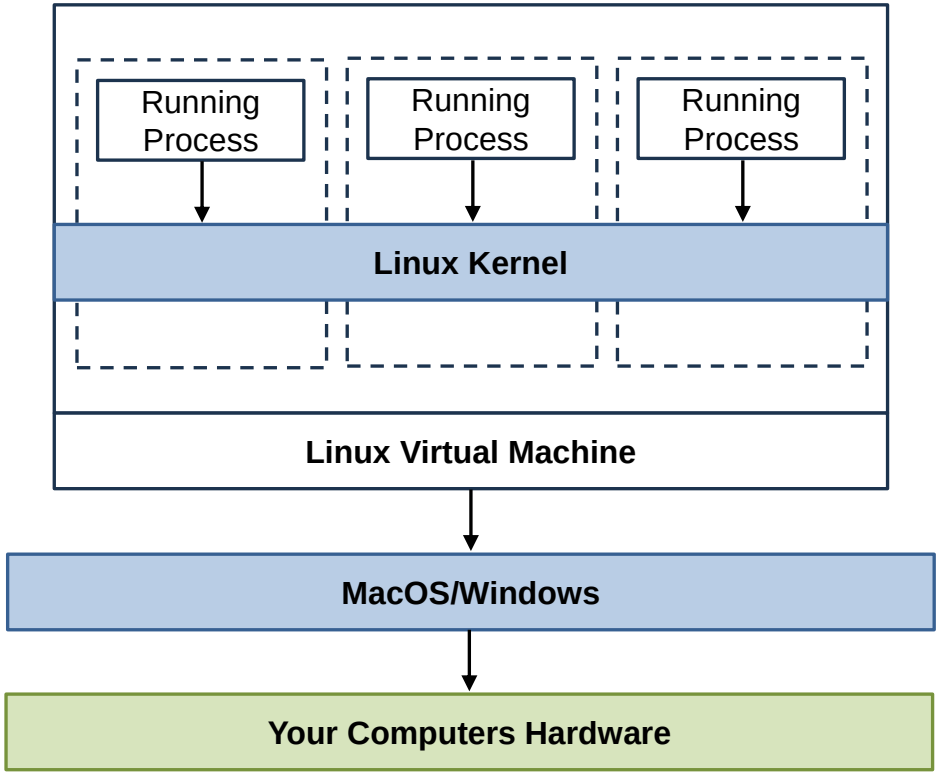
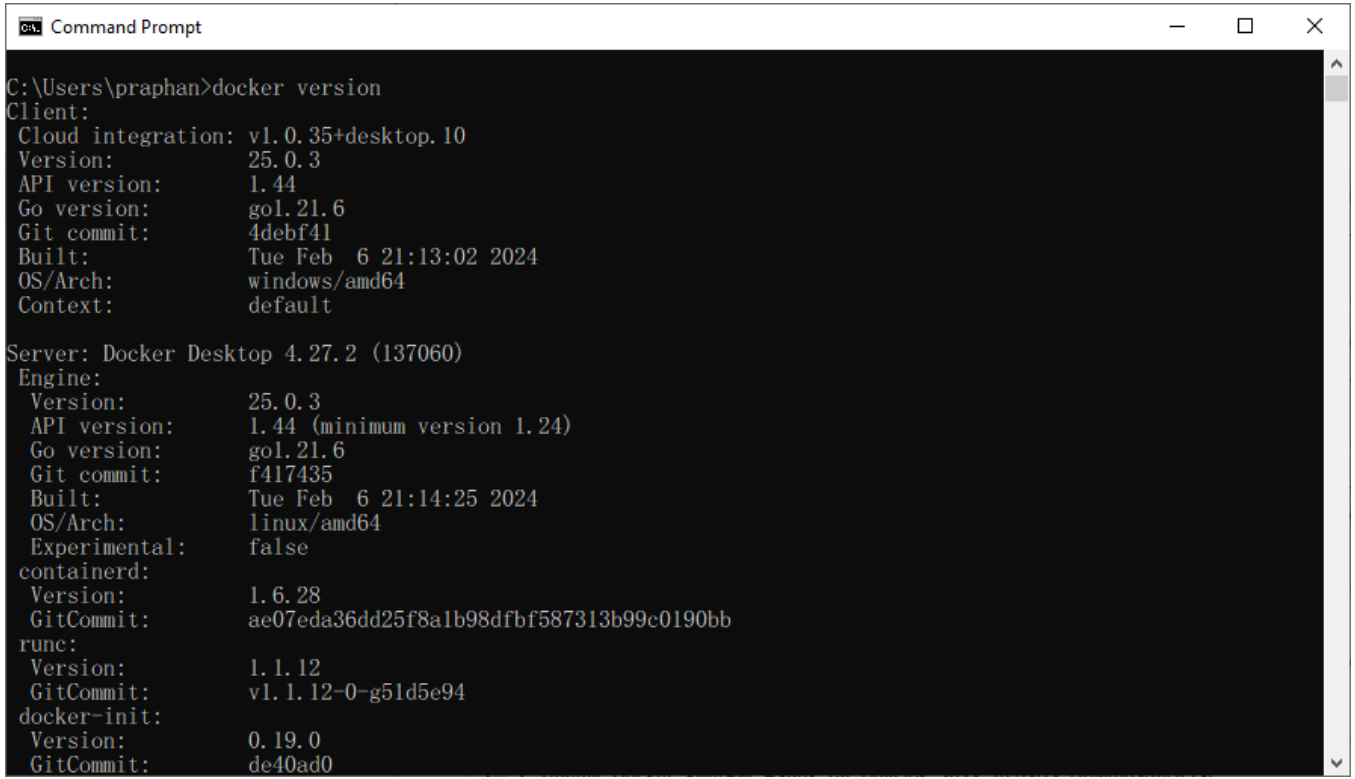




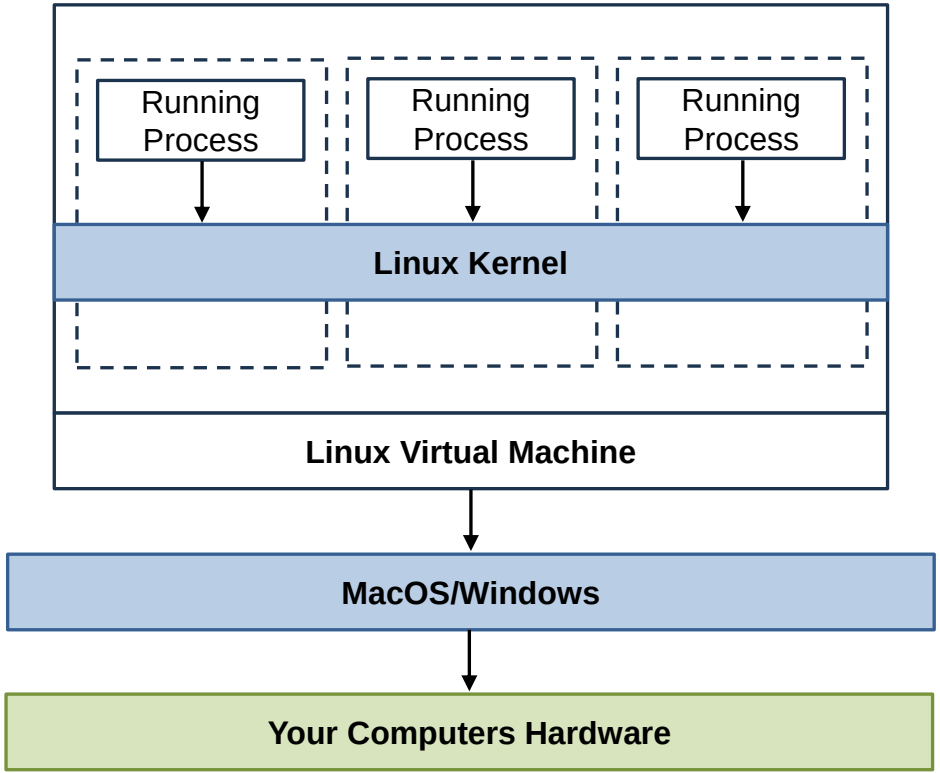
How's Docker Running on Your Computer?



How's Docker Running on Your Computer? (cont.)



How's Docker Running on Your Computer? (cont.)



Q & A