Docker for Web Developers

WHY USE DOCKER AS A DEVELOPER?

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Placeholder

Promo Video Demo
of Parts of Course Goes Here

I'll talk over the video
Created after the course is done

Course Agenda

- Why Use Docker as a Developer?
- Setting Up Your Dev Environment with Docker Toolbox
- Using Docker Client in Your Dev Environment
- Hooking Your Source Code Into a Container
- Linking Docker Containers
- Managing Multiple Containers with Docker Compose
- Deploying Your Containers to Azure
- Reviewing the Case for Docker

Why Use Docker as a Developer?

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Module Agenda

What is Docker?

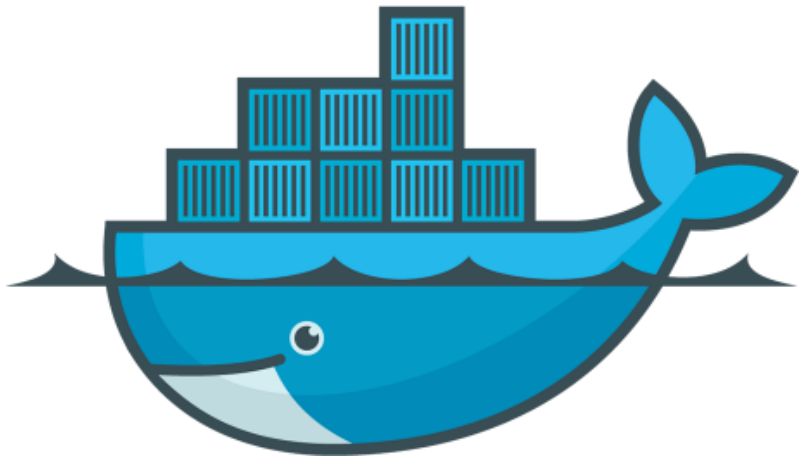
Docker Benefits
(for Web Developers)

Docker Tools

Docker in Action

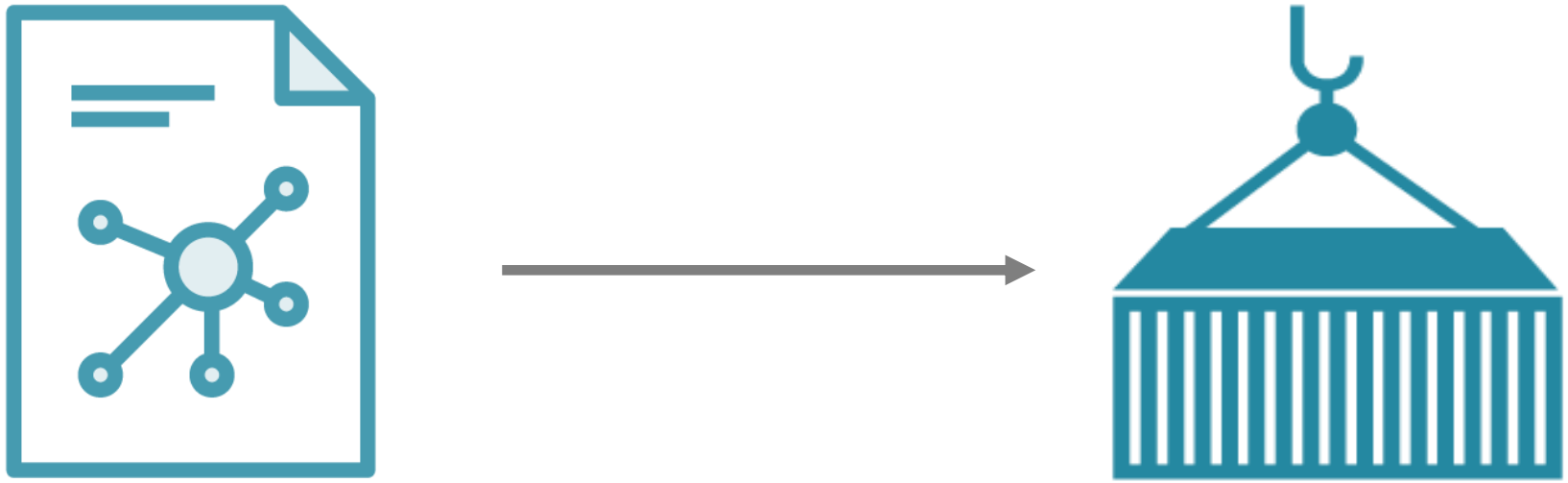
What is Docker?

What is Docker?



- Lightweight, open, secure platform
- Simplify building, shipping, running apps
- Shipping container system for code
- Runs natively on Linux or Windows Server
- Runs on Windows or Mac Development machines (with a virtual machine)
- Relies on "images" and "containers"

The Role of Images and Containers



Docker Image

Example: Ubuntu with Node.js and Application Code

Docker Container

Created by using an image. Runs your application.

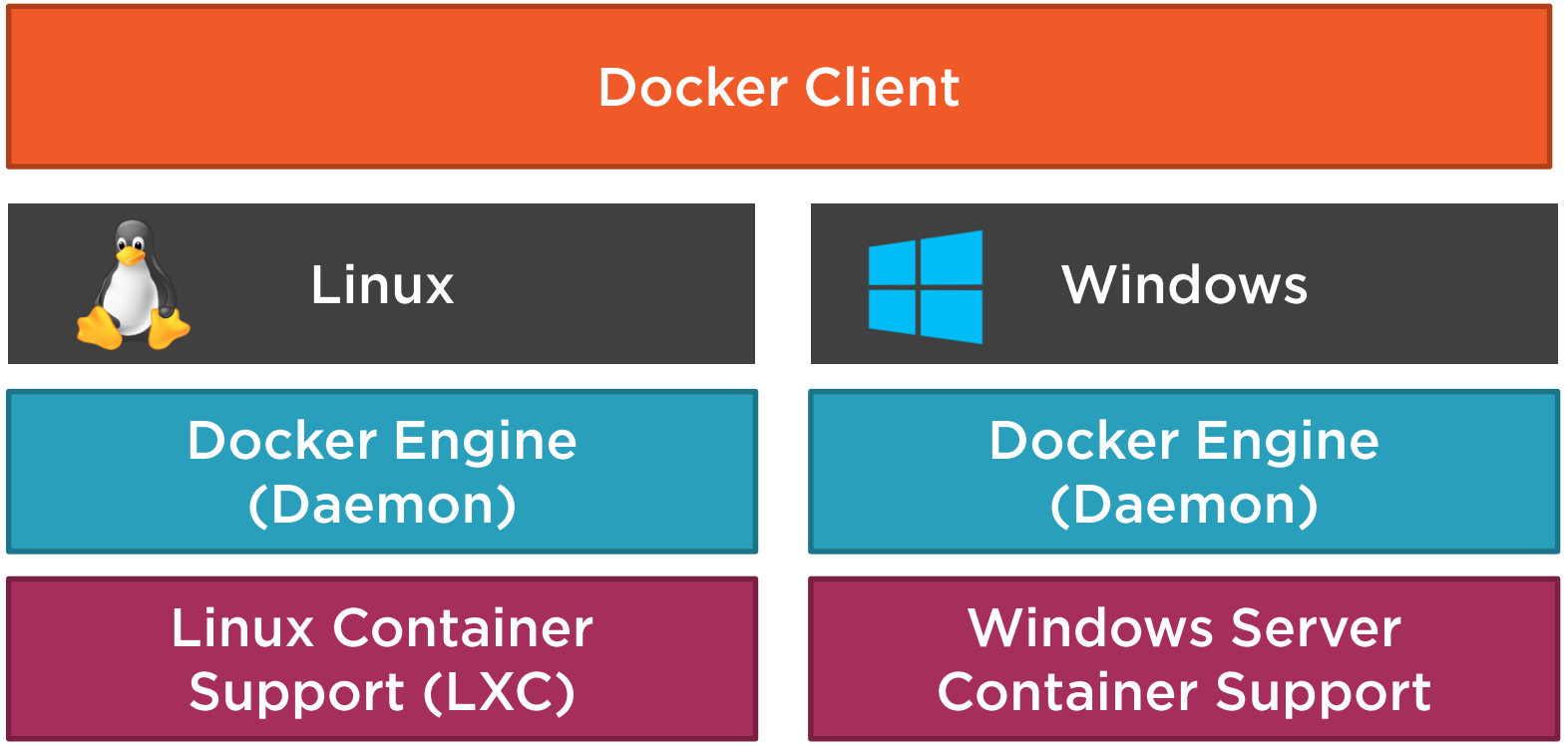
Image

A **read-only template** composed of layered filesystems used to share common files and create Docker container instances.

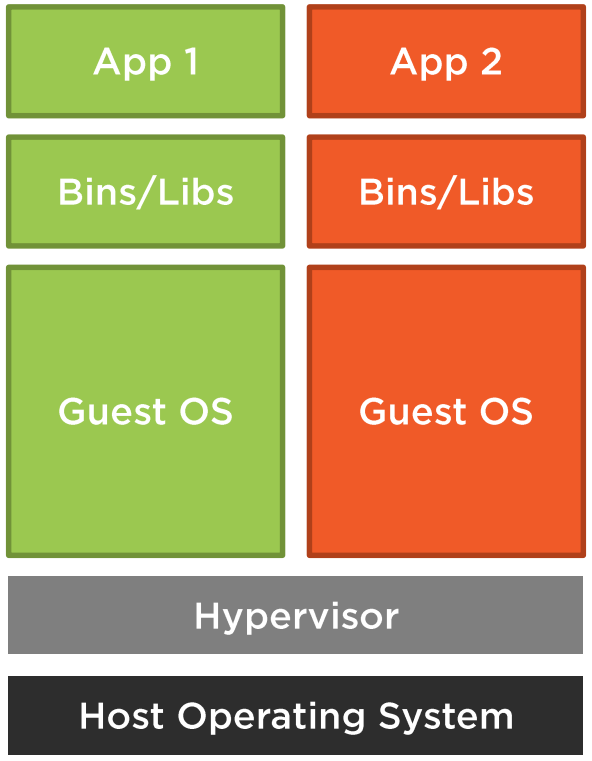
Container

An isolated and secured shipping container created from an image that can be run, started, stopped, moved and deleted.

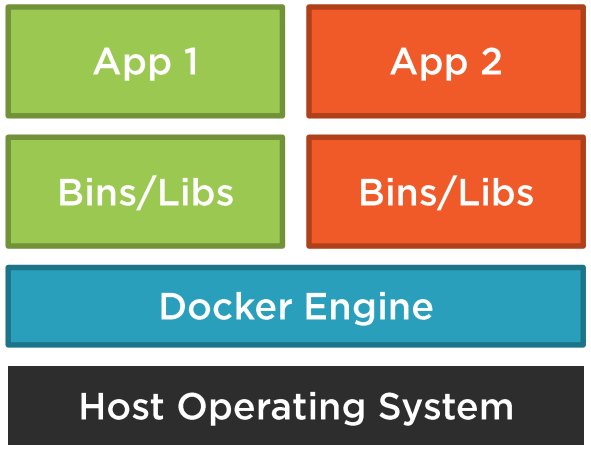
Where Does Docker Run?



Docker Containers Versus Virtual Machines



Virtual Machines



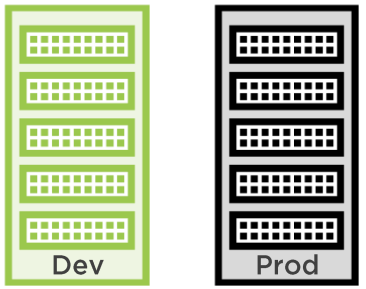
Docker Containers

Docker Benefits (for Web Developers)

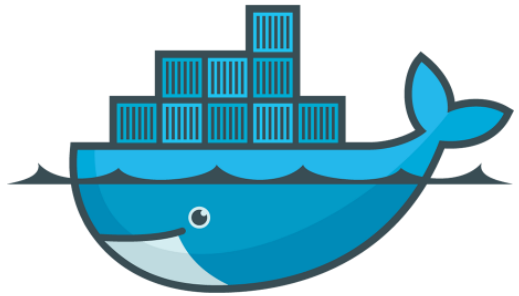
Docker Benefits
(for Web Developers)

Accelerate Developer Onboarding

Eliminate App Conflicts

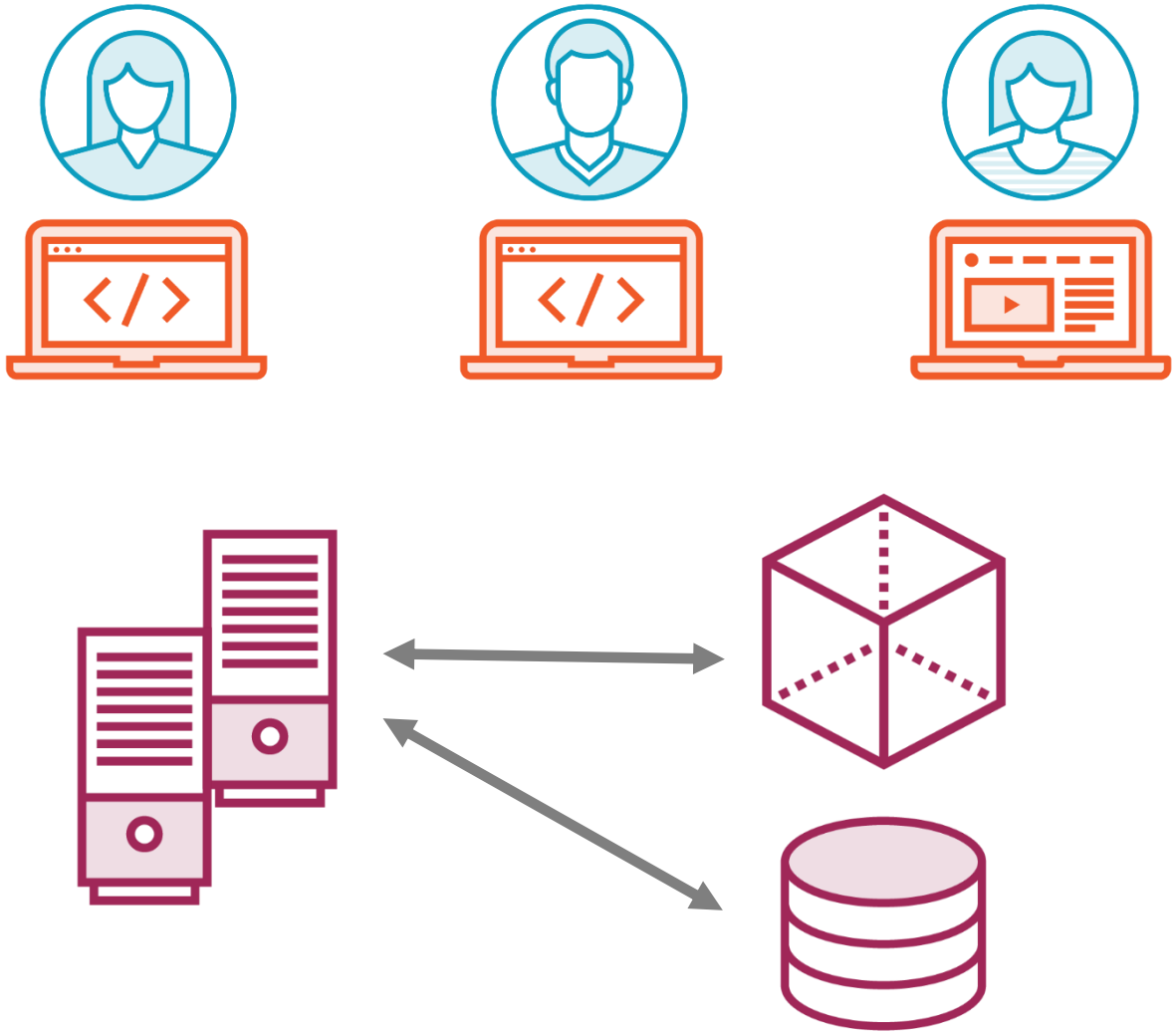


Environment Consistency

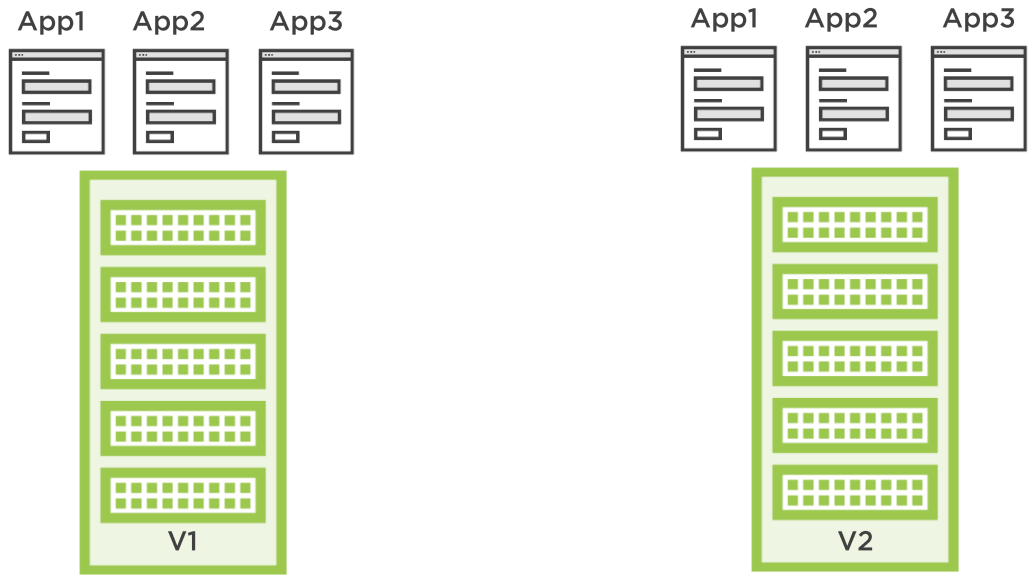


Ship Software Faster

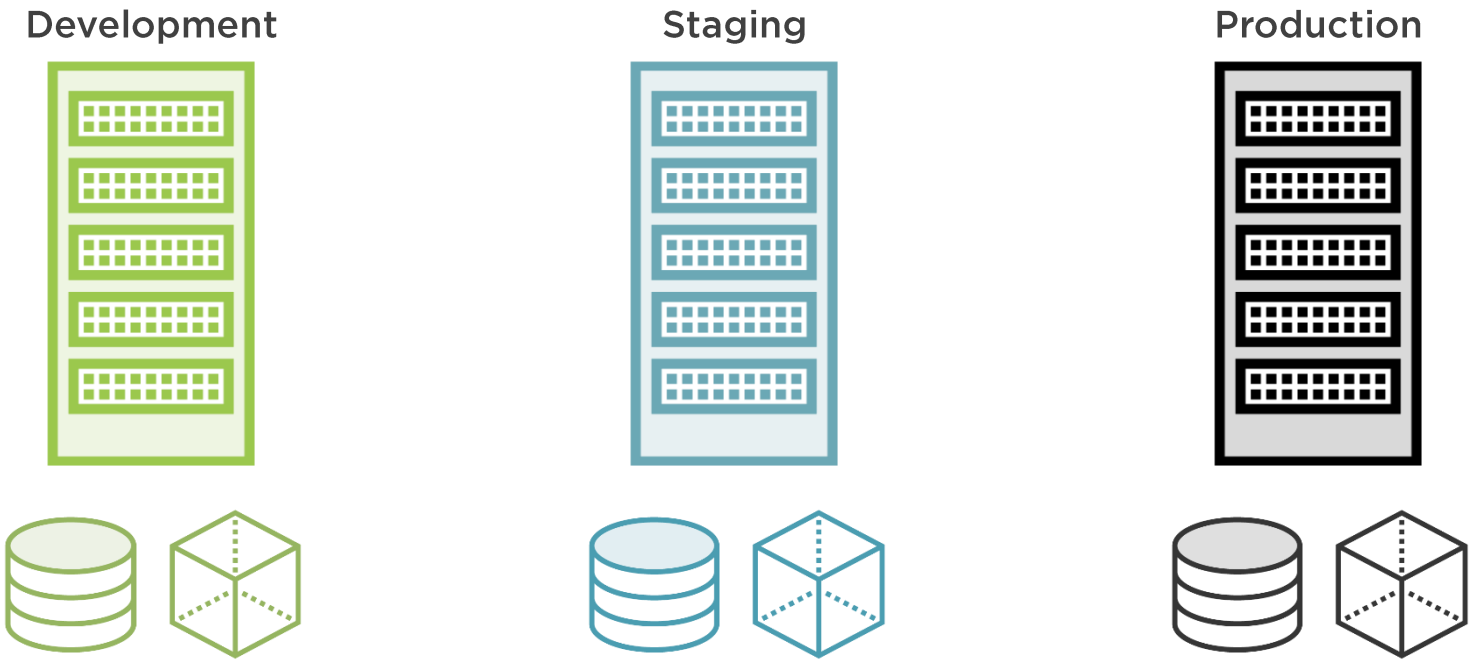
Accelerate Developer Onboarding



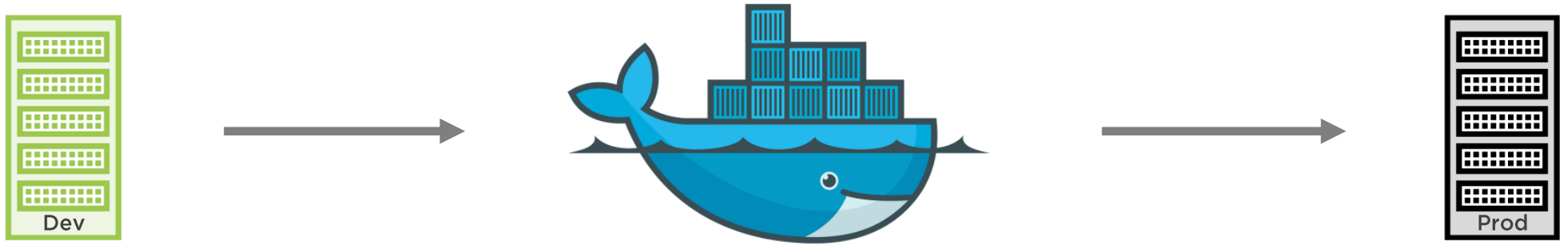
Eliminate App Conflicts



Environment Consistency



Ship Software Faster



Docker Tools

Docker Toolbox

Legacy option for Windows 7/8

Provides image and container tools

Virtual machine

https://www.docker.com/docker-toolbox

Docker Toolbox Tools

Docker Client

Docker Kitematic

Docker Machine

VirtualBox

Docker Compose

Docker Desktop

Docker Desktop (Windows 10 Pro+ or Mac)

Provides image and container tools

Using Hyper-V/Hyperkit to run VMs

Works on Windows, Mac, Linux (Docker Engine)

https://www.docker.com/get-started

Docker Desktop Tools

Docker Client

Docker Compose

Docker Kitematic

Docker Toolbox vs. Docker Desktop

Docker Toolbox	Docker Desktop
Windows 7 or 8	Windows 10+ Pro or Mac
Uses VirtualBox	Hyper-V/Hyperkit
Will use Docker Machine	

Docker in Action

Summary

Docker simplifies building, shipping and running apps

Runs natively on Linux and Windows Server

Docker is NOT the same as using Virtual Machines

Key benefits to Web Developers:

- Accelerate developer onboarding
- Simplify working with multiple apps
- Consistency between environments
- Ship faster!