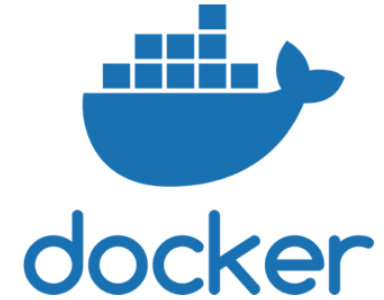
Section 11: Deploying with Containers (Docker)

Introduction

What We Will Be Covering



- What are containers? What is Docker? (this section)
- Why use Containers and Docker? (this section)
- Installing Docker
- Configuring Docker
- Basic Docker Demo Locally
- Deploying Docker Images to Heroku

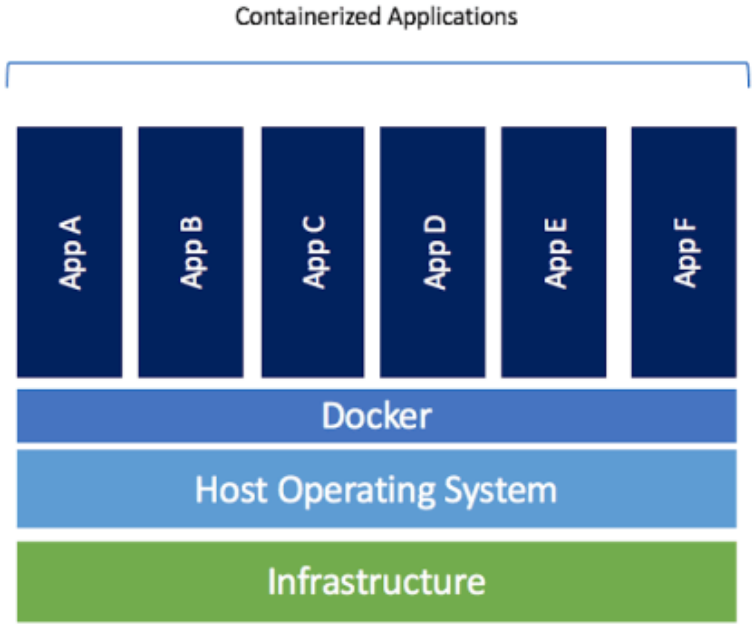
What is a Container?

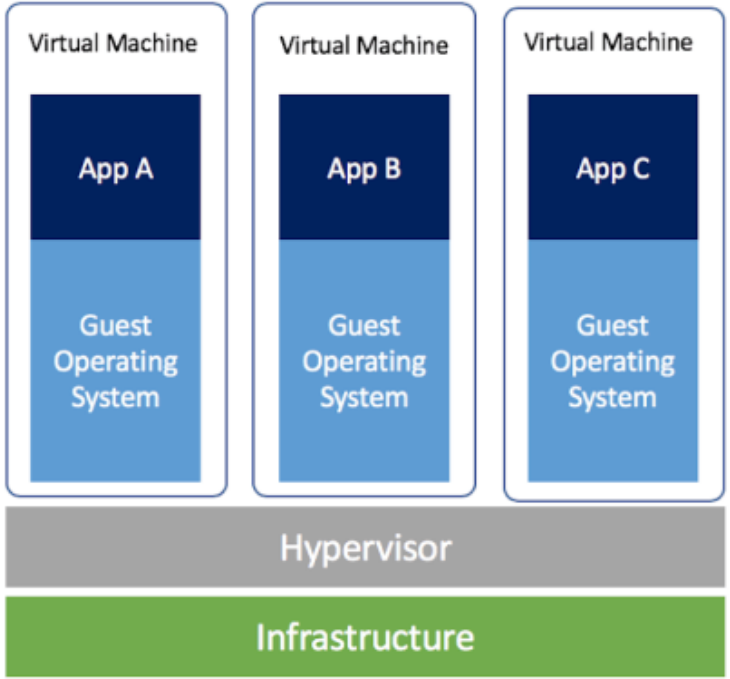
“A container is a standard unit of software that packages up code and all its dependencies so the application runs quickly and reliably from one computing environment to another.”

What is Docker?

- Put simply, Docker is a tool to make creating, deploying and running containers easy.
- Docker is open source
- Released in 2013
- A Docker container is a standardized unit of software development, containing everything that your software application needs to run: code, runtime, system tools, system libraries, etc.
- Containers are created from a read-only template called an image

Containers vs. Virtual Machines





Why Use Containers?

- Reproducibility
- Isolation
- Simplicity of environment management (Great for making staging/UAT match production)
- Ease of continuous integration
- Much faster and more lightweight than a VM
- Container orchestration options (e.g. Kubernetes)
- Docker is the most popular tool for creating and running containers

Let’s Get Started!

See you in the next section