Run an Application Container

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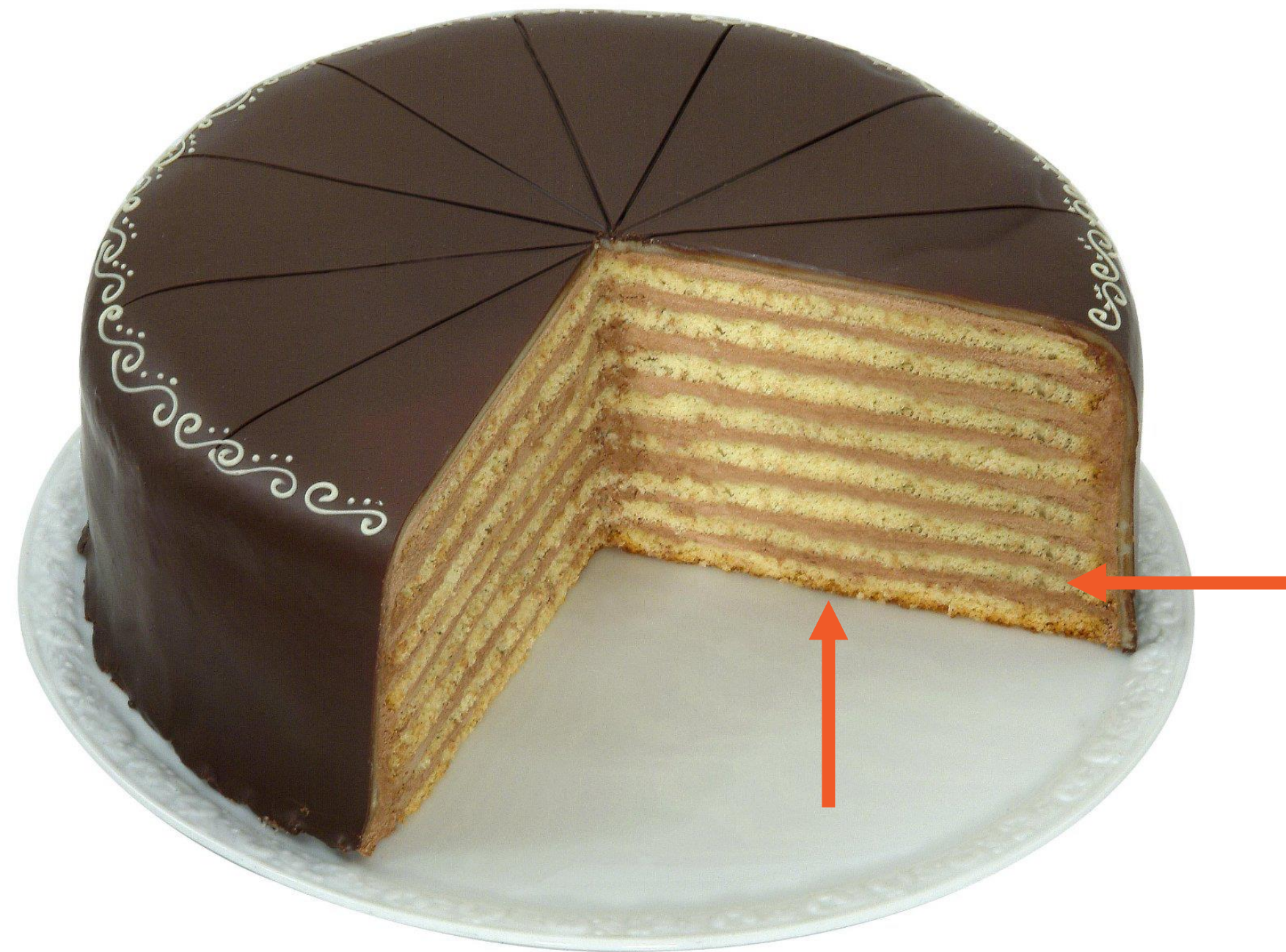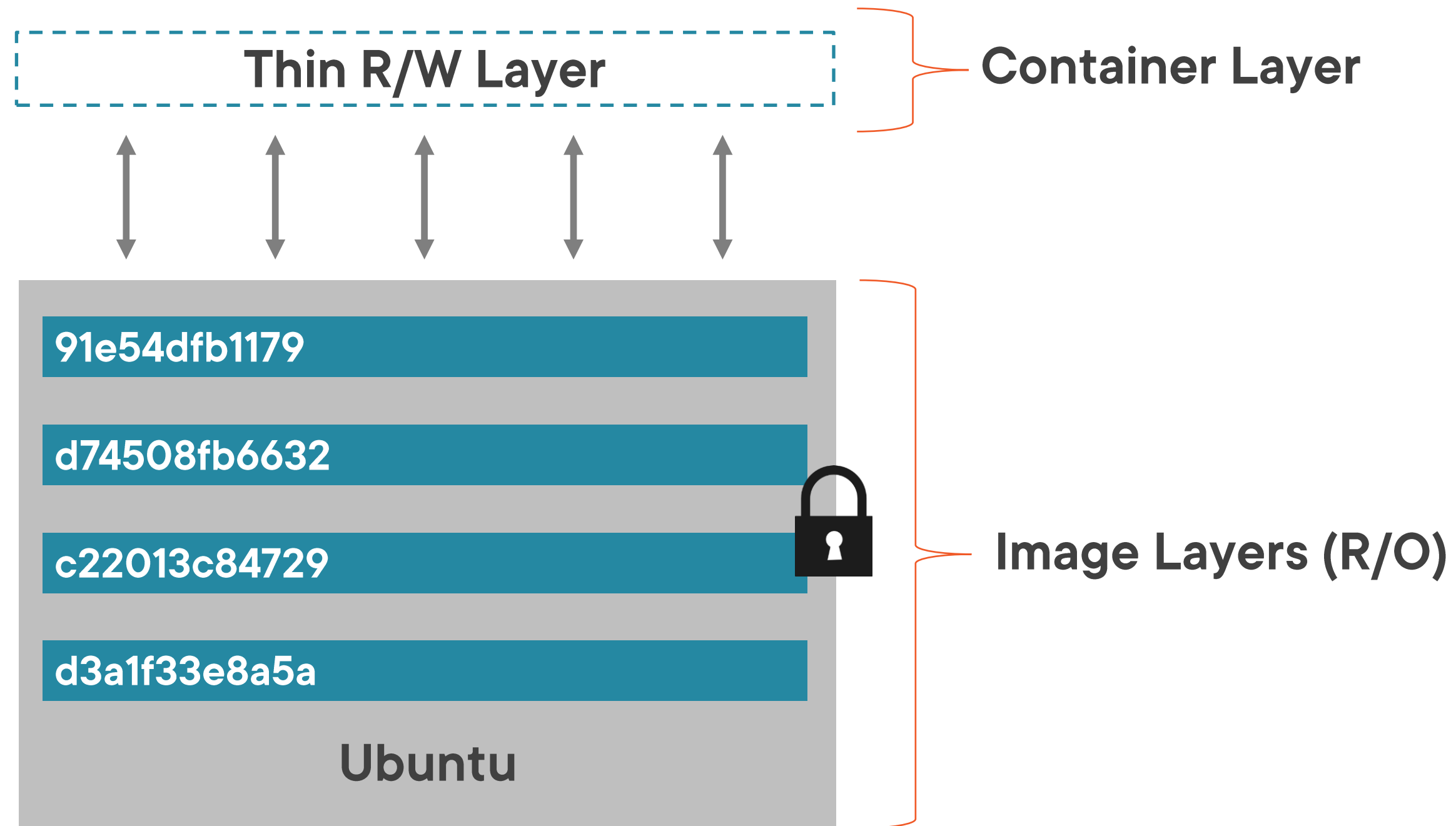
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Overview

- **Use docker pull to retrieve a custom image from a registry**
- **Run an application container**
- **View container logs**
- **Create a container volume**

Run an Application Container

Images and the Layered File System

Images, Containers and File Layers

Thin R/W Layer — **Container Layer**

91e54dfb1179

d74508fb6632

c22013c84729

d3a1f33e8a5a

Ubuntu

Image Layers (R/O)

Pulling an Image from a Registry

```
docker pull <imageName>
```

Running a Container

```
docker run -p <externalPort>:<internalPort> <imageName>
```

Using docker run

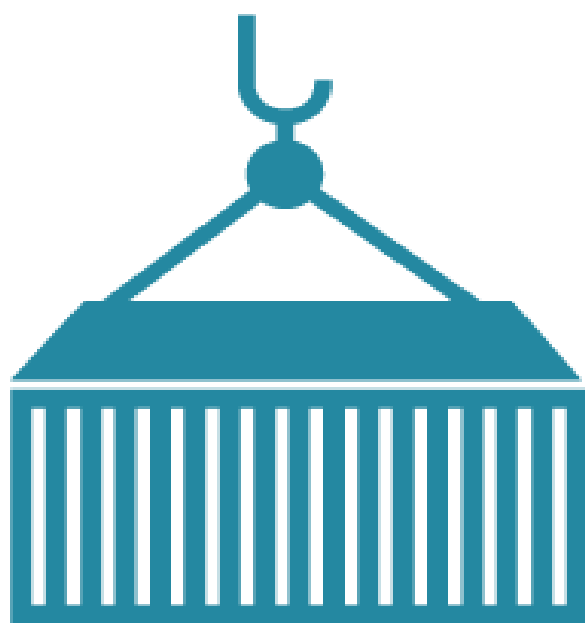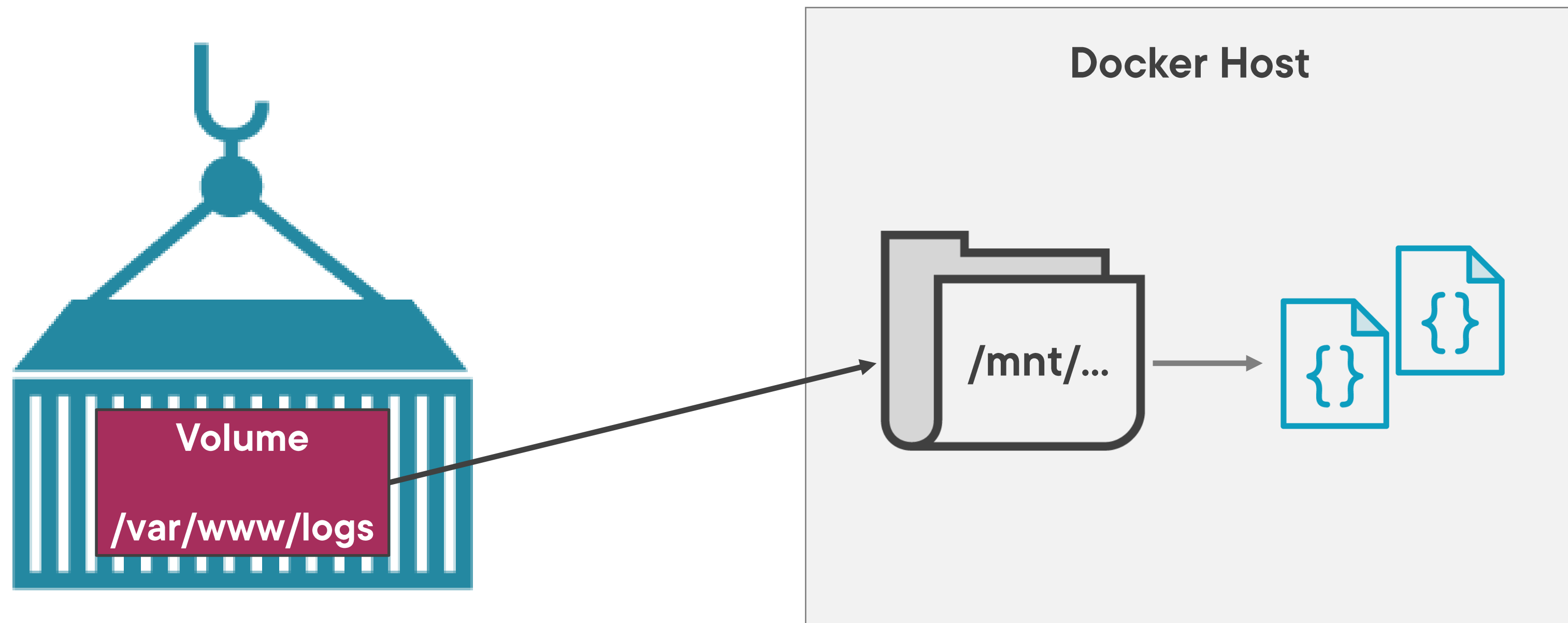# View Container Logs

Using docker logs to View Container Logs
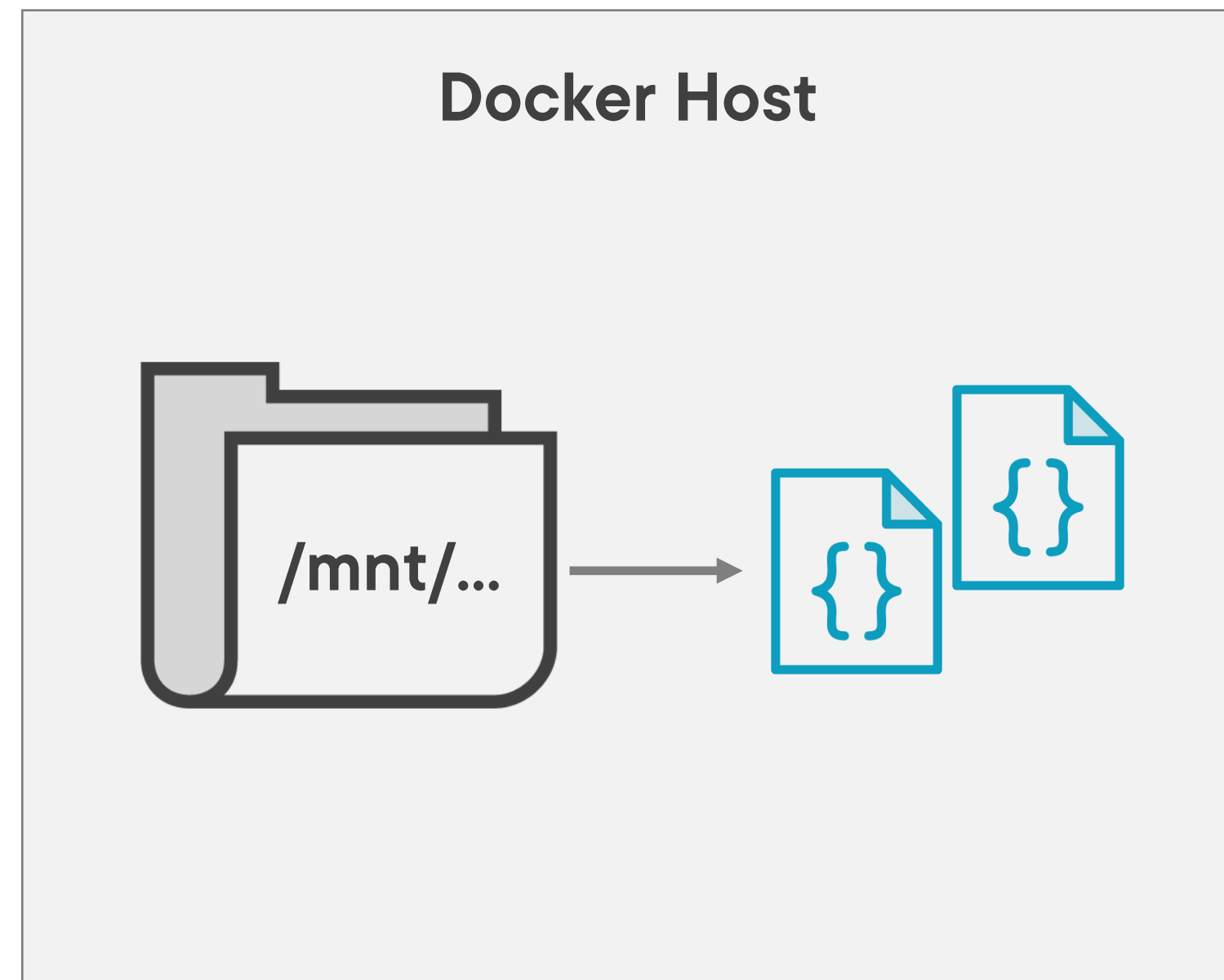
```
docker  logs <containerId>
```

Using Container Volumes

Storing Data Outside of a Container

Volume Mounts

Volume Mounts

Creating a Container Volume

**Data in folder should be
stored on the container host**

```
docker run -p <ports> -v /var/www/logs <imageToRun>
```

Defining a Host Location (Mac/Linux)

Data in folder should be stored on the container host

```
docker run -p <ports> -v $(pwd):/var/www/logs <imageToRun>
```

Print working directory (Mac/Linux)

Key Volume Scenarios

**Production Scenarios
(logs, database files and more)**

**Development Scenarios
(develop using containers)**

Defining a Host Location (Windows)

Print working directory
(Windows PowerShell)

```
docker run -p <ports> -v ${PWD}:/var/www/logs <imageToRun>
```

Create a Container Volume

Summary

- **Docker pull can be used to retrieve an image from a registry**
- **docker run allows an image to be run as a container**
- **Access container logs using docker logs**
- **Volumes provide persistent storage**