

Hooking Your Source Code into a Container



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Module Agenda

The Layered File System

Containers and Volumes

Source Code, Volumes and
Containers

Hooking a Container Volume to
Source Code

Removing Containers
and Volumes



Question



How do you get source code into a container?



Answer



1. Create a container volume that points to the source code.
2. Add your source code into a custom image that is used to create a container.

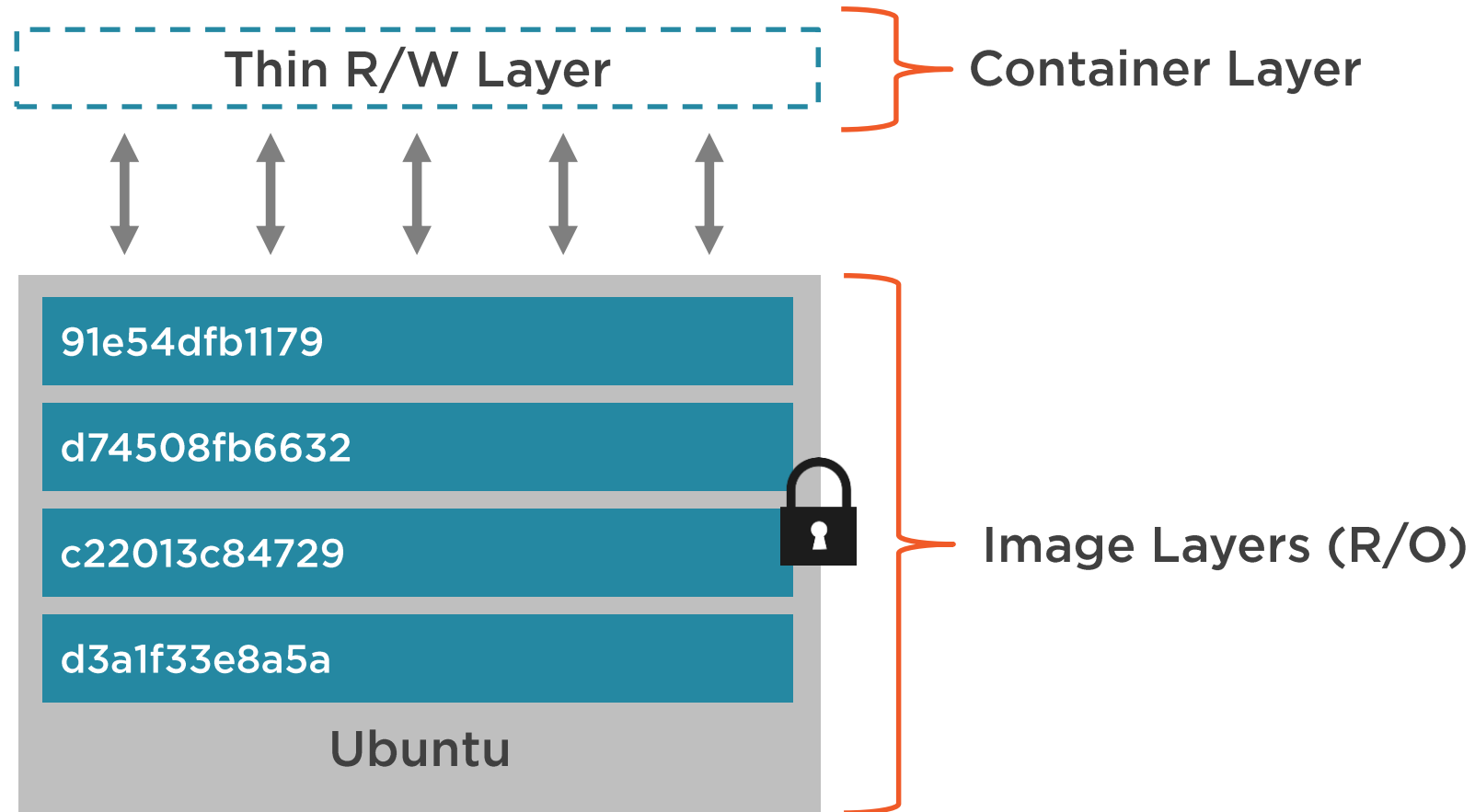
The Layered File System



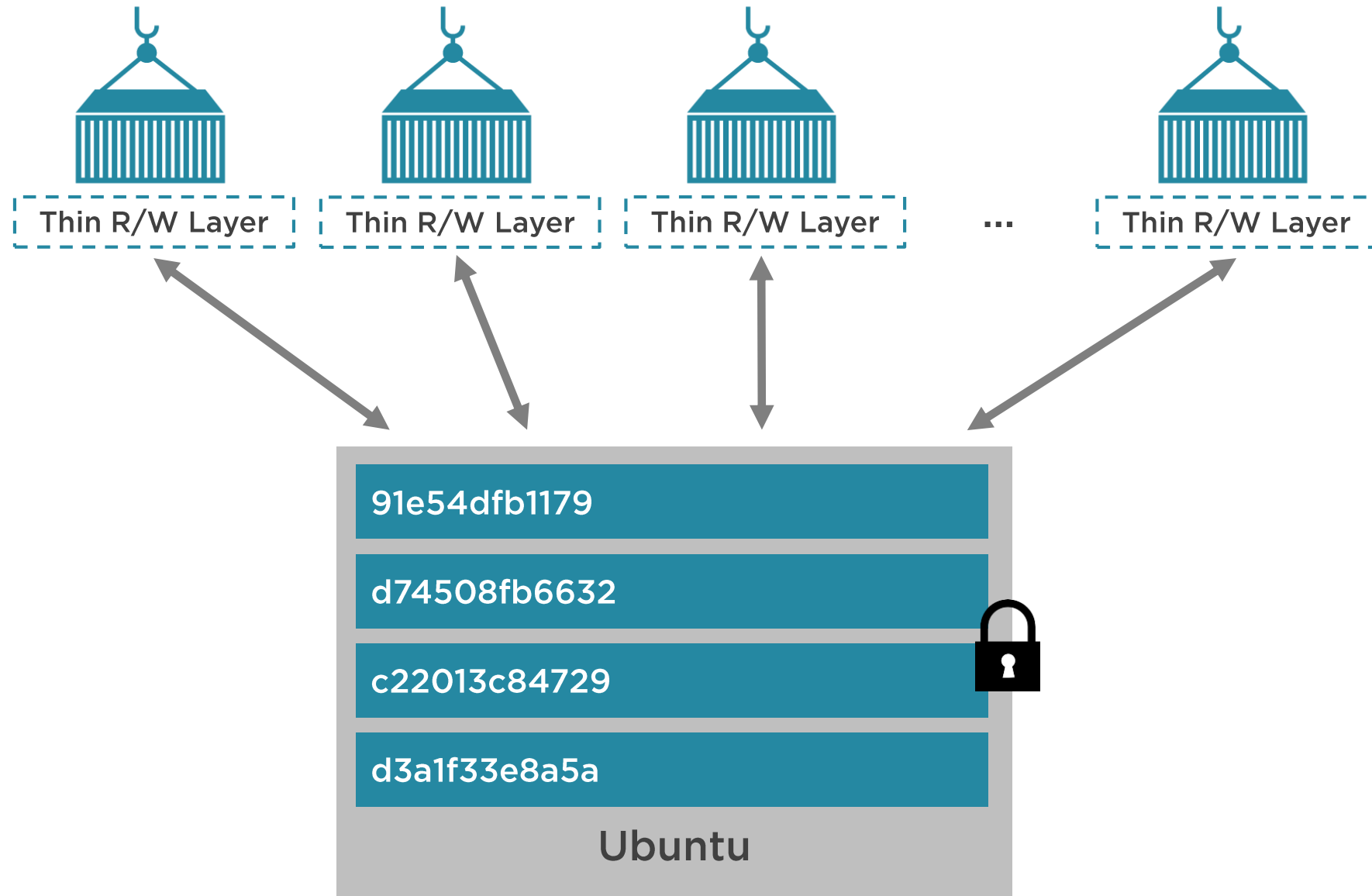
Layers (from a dessert perspective)



Images, Containers and File Layers



Containers Can Share Image Layers



Question



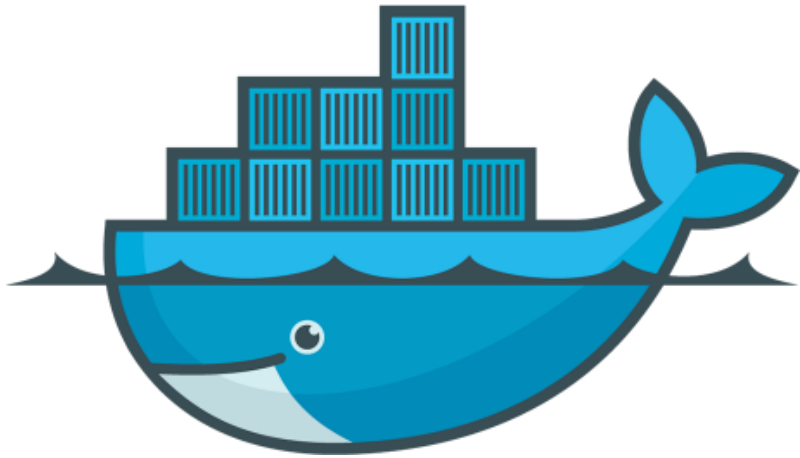
How do you get source code into a container?



Containers and Volumes



Docker Volumes



What is a Volume?

Special type of directory in a container typically referred to as a "data volume"

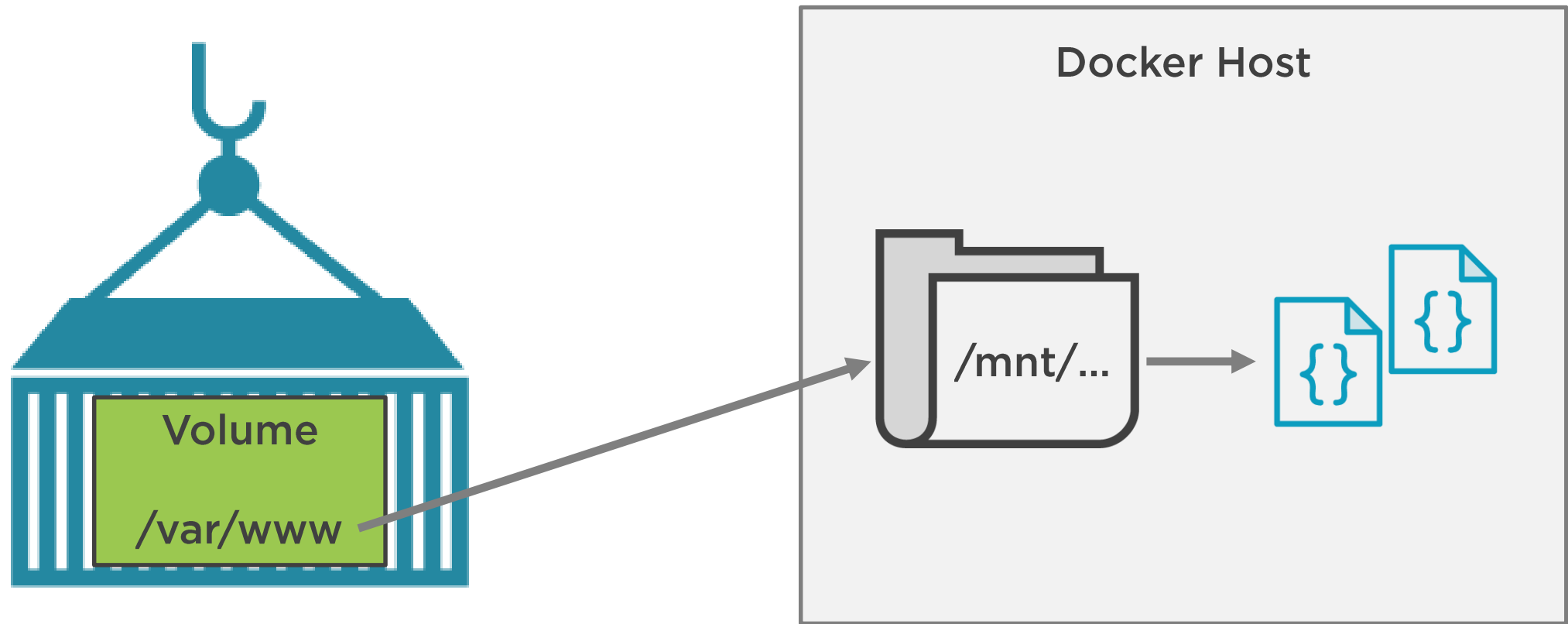
Can be shared and reused among containers

Updates to an image won't affect a data volume

Data volumes are persisted even after the container is deleted



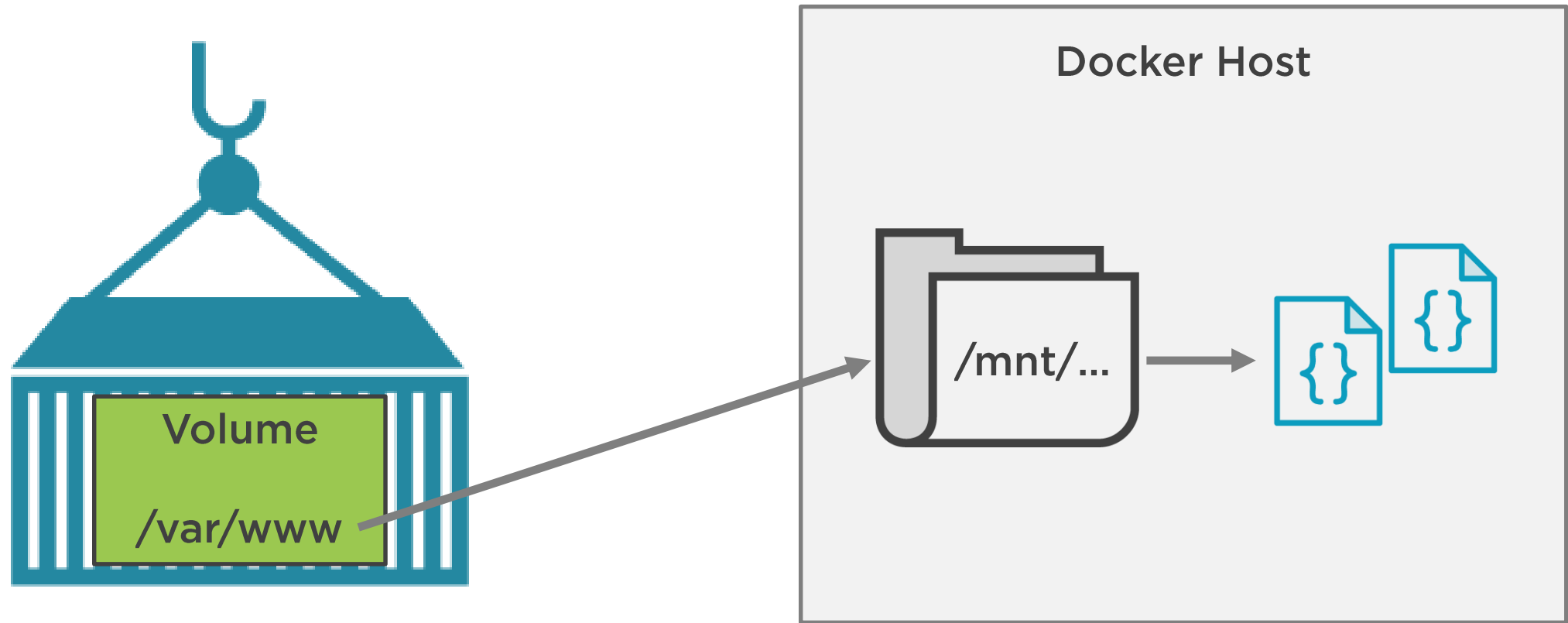
Volume Overview



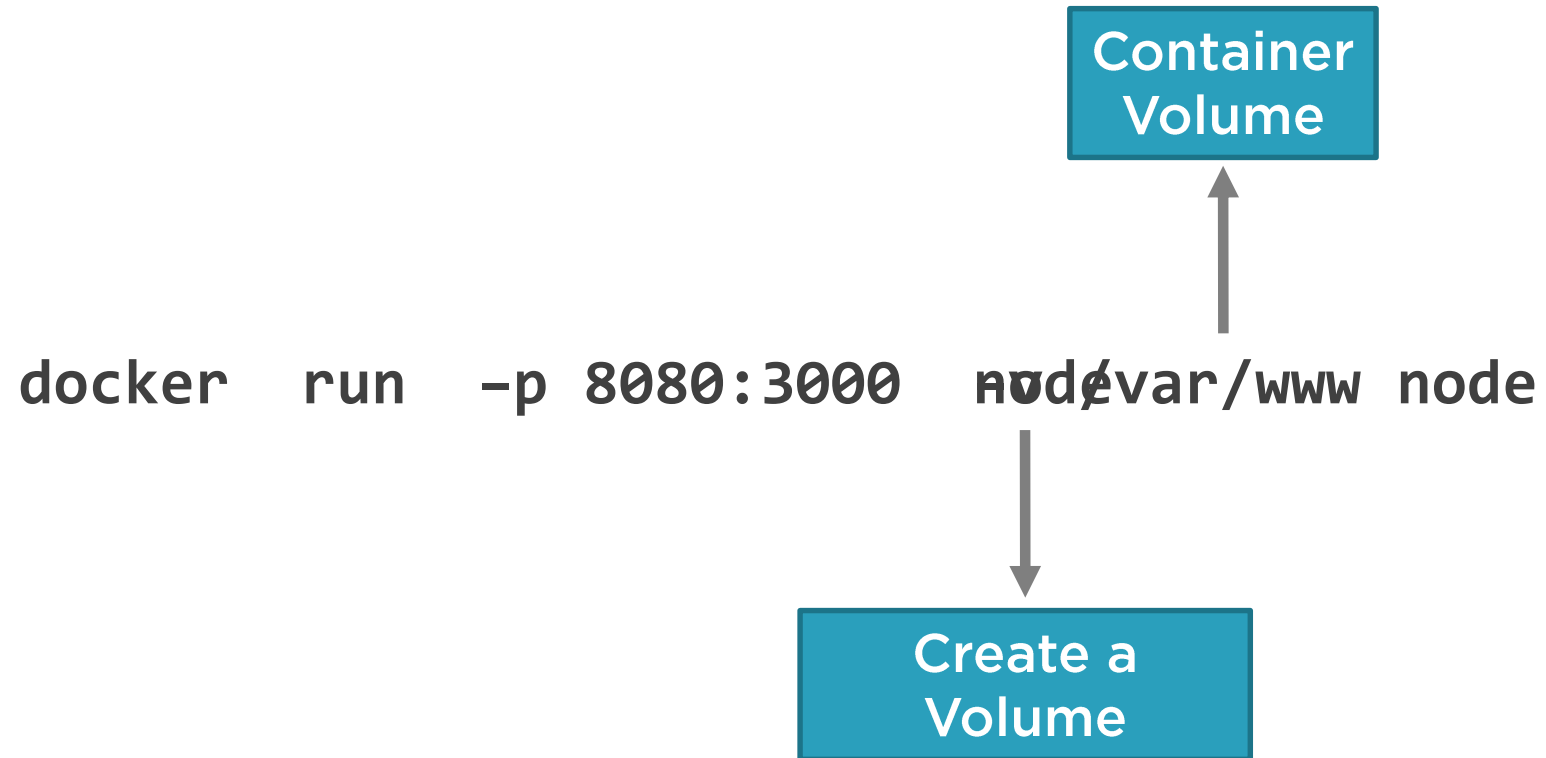
Source Code, Volumes and Containers



Understanding Volumes

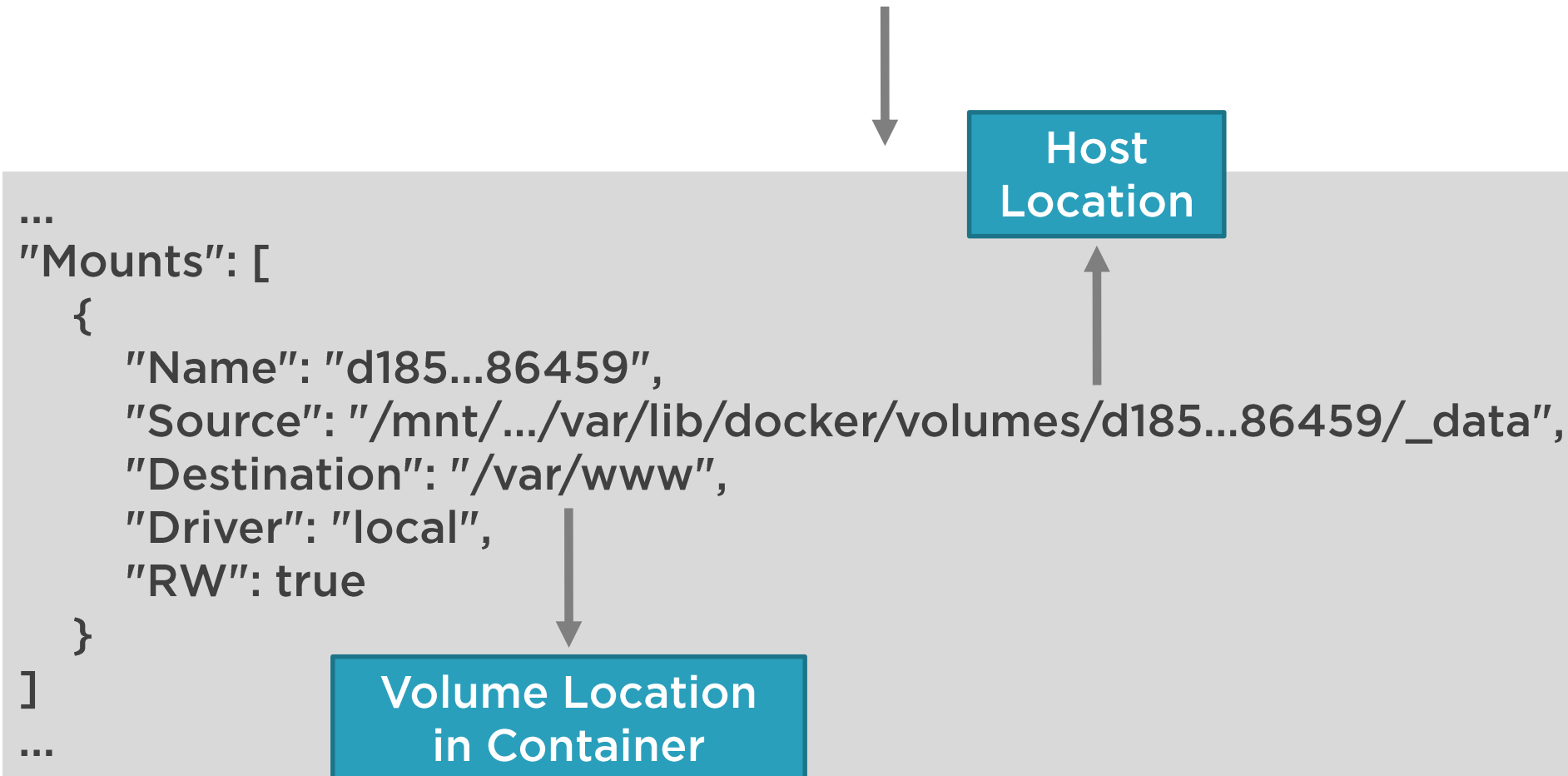


Creating a Data Volume

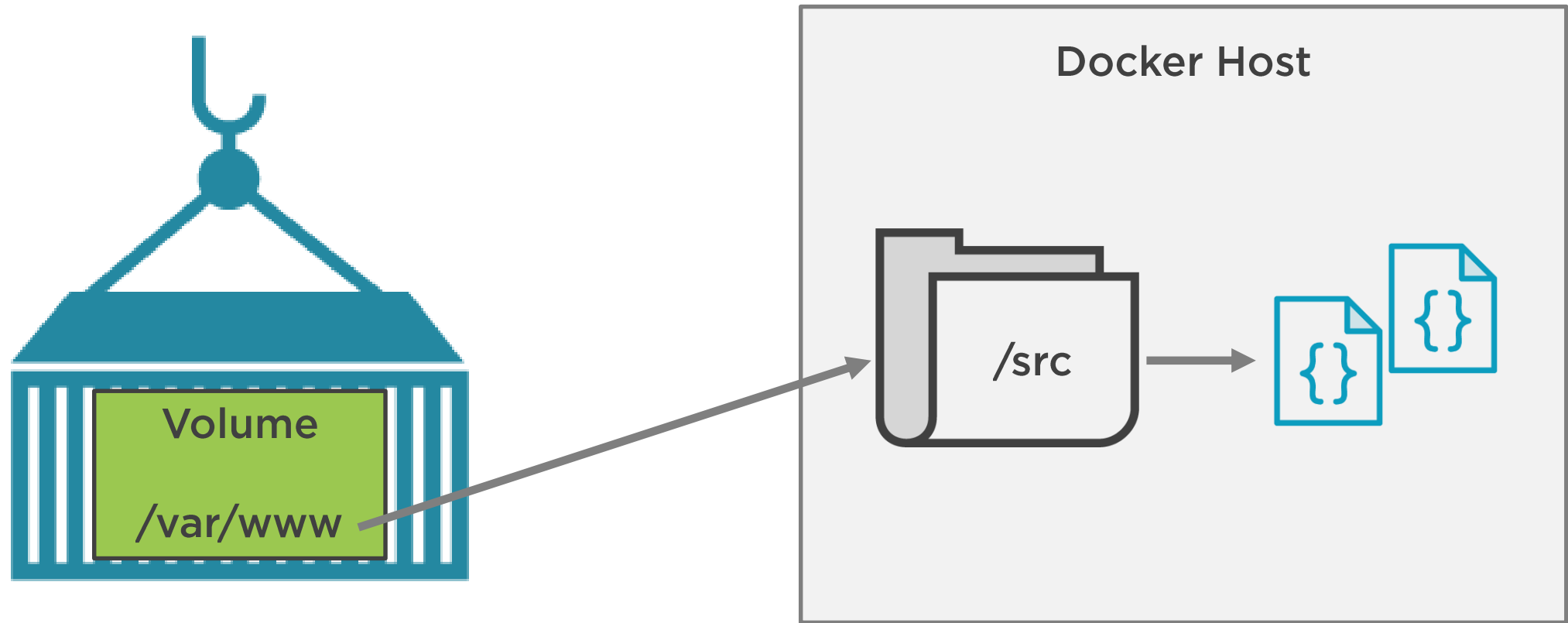


Locating a Volume

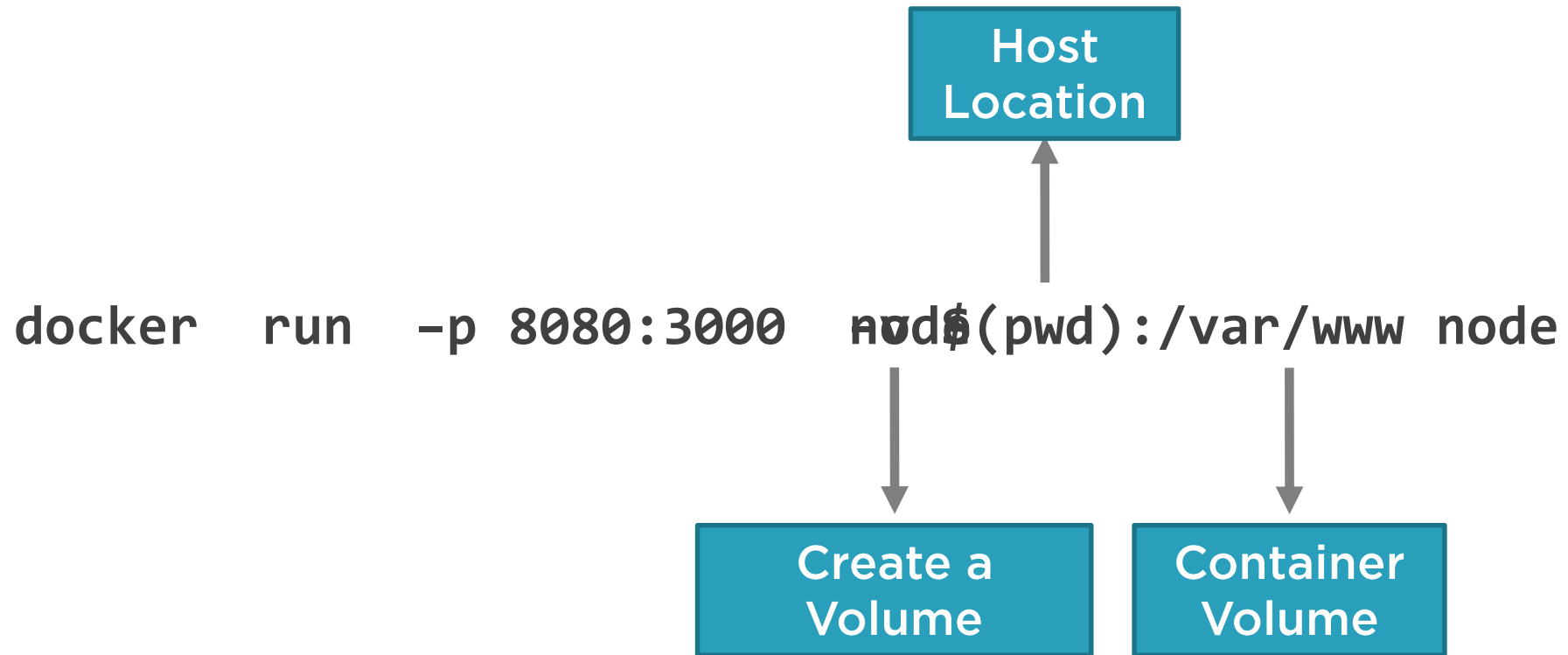
`docker inspect mycontainer`



Customizing Volumes



Customizing the Host Location for a Data Volume



Locating a Volume

`docker inspect mycontainer`



...

"Mounts": [

{

"Name": "d185...86459",

"Source": "/src",

"Destination": "/var/www",

"Driver": "local",

"RW": true

}

]

...

Host
Location

Volume Location
in Container



Hooking a Volume to Node.js Source Code



Hooking a Volume to ASP.NET Source Code



Removing Containers and Volumes



Creating a Docker Managed Volume

```
docker run -p 8080:3000 node:alpine node
```



Docker Controlled Volumes

`docker inspect mycontainer`



```
...  
"Mounts": [  
  {  
    "Name": "d185...86459",  
    "Source": "/mnt/.../var/lib/docker/volumes/d185...86459/_data",  
    "Destination": "/var/www",  
    "Driver": "local",  
    "RW": true  
  }  
]  
...
```



Removing Volumes

```
docker rm -v lastContainer
```



Summary



Docker images and containers rely on a "layered file system"

Source Code can be hooked to a container using volumes:
`docker run -v`

Volumes are persisted on the Docker Host

Volumes can be removed using:
`docker rm -v lastContainer`

