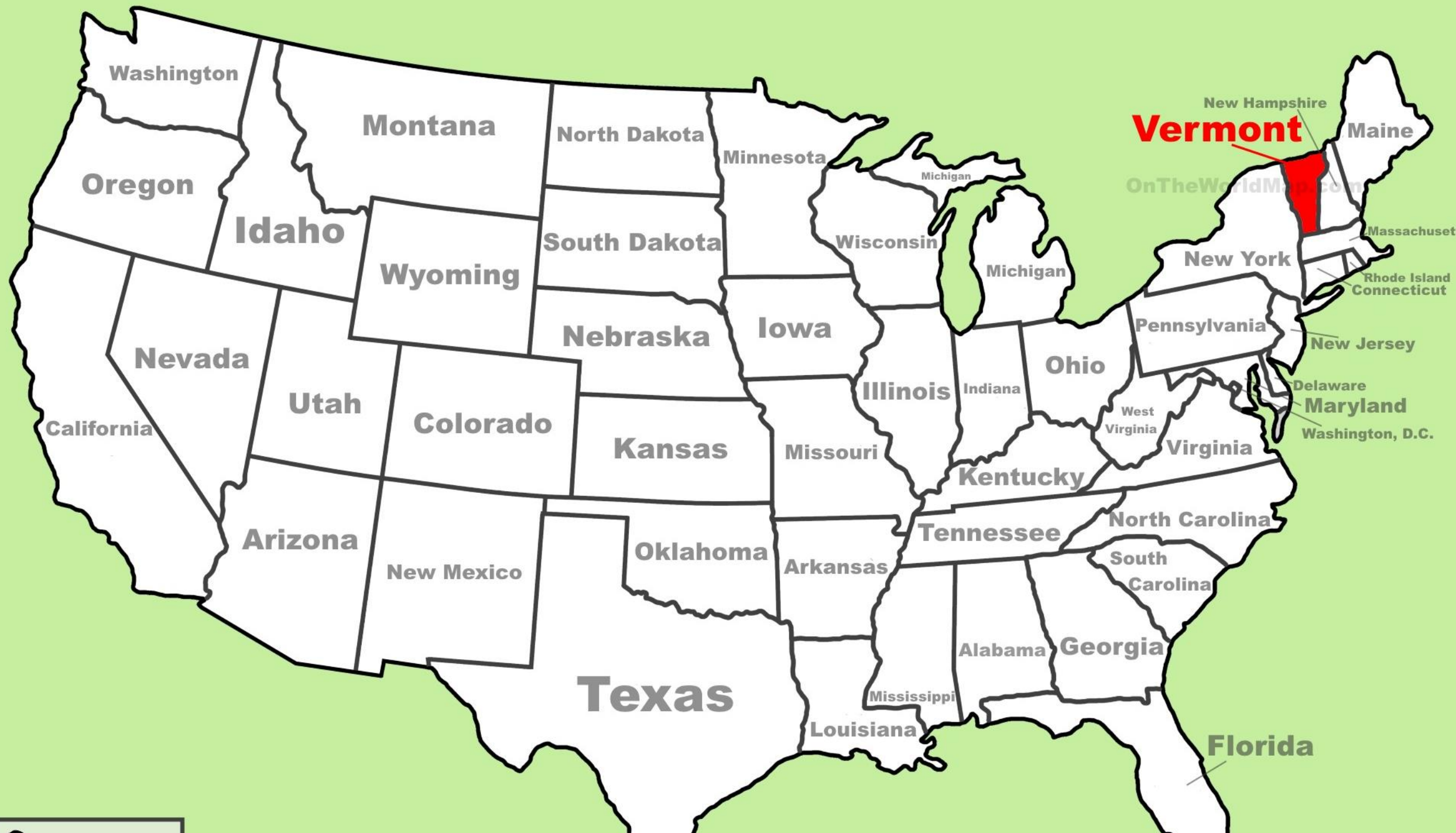




DOCKER CONTAINERS FOR DEV & TEST

JULIE LERMAN @JULIELERMAN
THEDATAFARM.COM

Microsoft Regional Director, Microsoft MVP, Docker Captain, Software Coach
about.me/julielerman



New Hampshire
Vermont
Maine

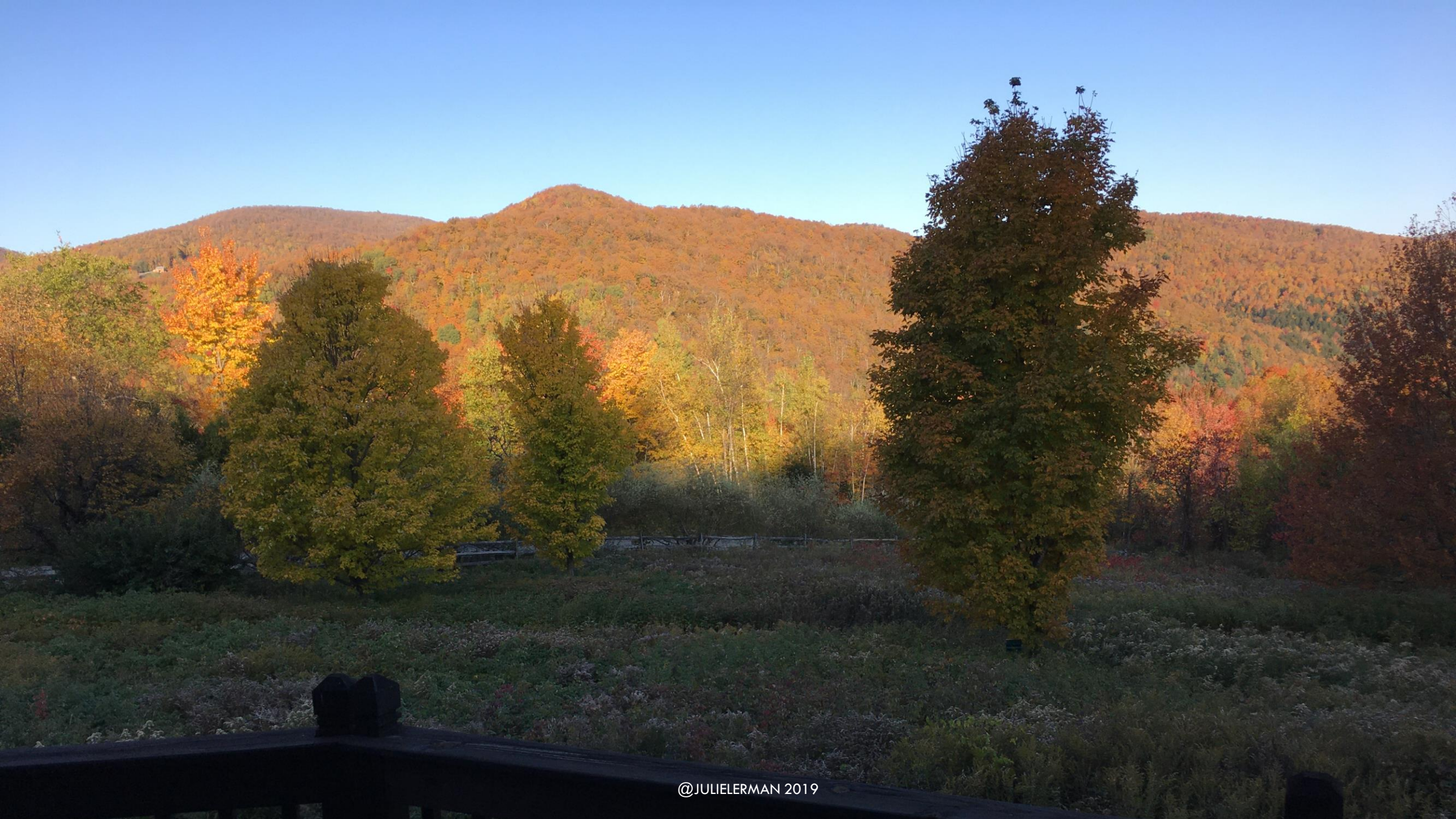
OnTheWorldMap.com

Massachusetts
Rhode Island
Connecticut

New Jersey

Delaware
Maryland
Washington, D.C.

Florida



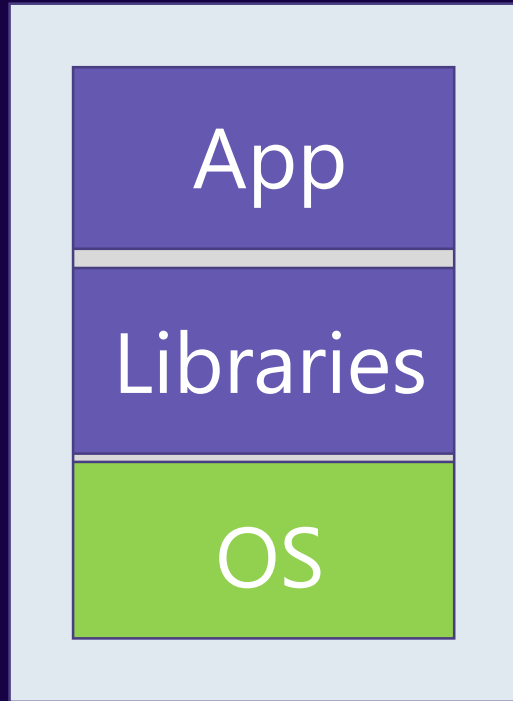
Container

Application + resources
combined into a
self-contained
execution environment



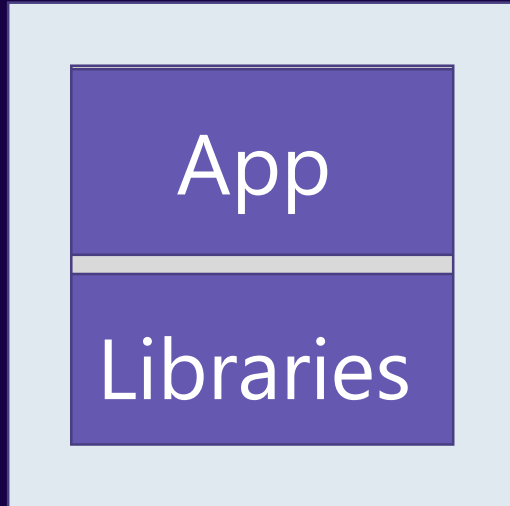
CONTAINER != VIRTUAL MACHINE

Virtual Machine

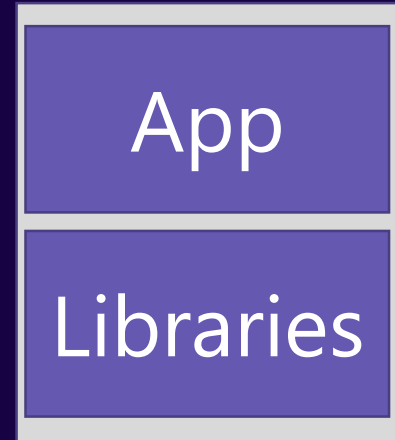


 Host 
Infrastructure

Container



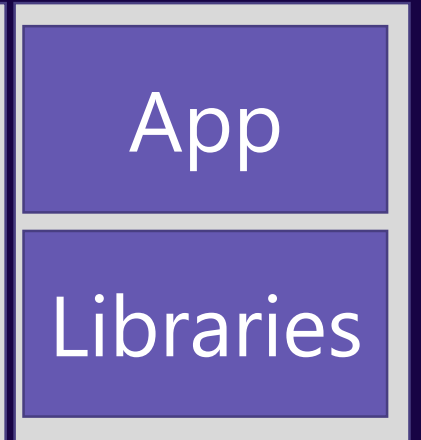
Container



Container



Container



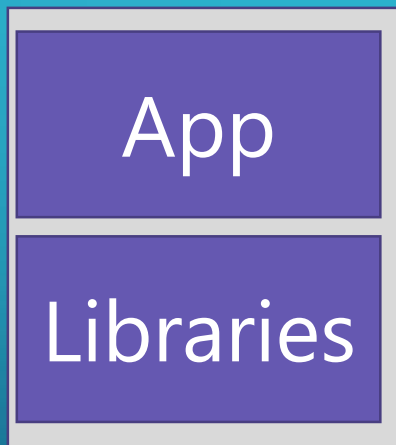
 Docker Engine 

OS

 Host Infrastructure 

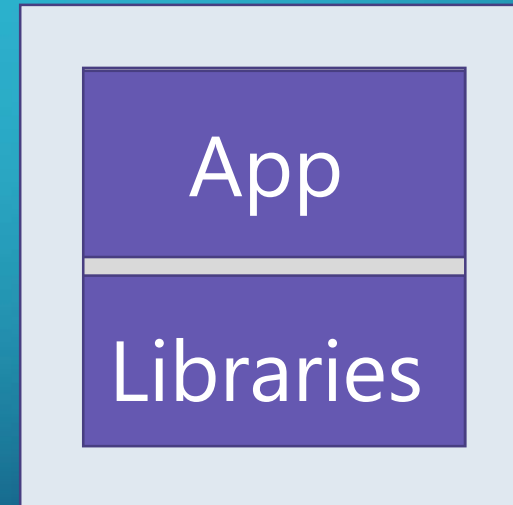
CONTAINERS == RUNNING IMAGES

Docker Image (Binary file)



















`>docker run ...`

Docker Container (Running instance)



- Download from Docker Hub
- Download from private/public hubs
- Build your own

SOME OF THE MANY OFFICIAL IMAGES AVAILABLE

 kitematic hello-world-nginx A light-weight nginx container that demonstrates the features of Kitematic ♡ 133 ↓ 22M CREATE	 official ghost Ghost is a free and open source blogging platform written in JavaScript ♡ 1.0K ↓ 118M CREATE	 official jenkins Official Jenkins Docker image ♡ 4.5K ↓ 98M CREATE	 official redis Redis is an open source key-value store that functions as a data structure server. ♡ 7.4K ↓ 1B CREATE
 official rethinkdb RethinkDB is an open-source, document database that makes it easy to build and scale realtime ♡ 524 ↓ 50M CREATE	 kitematic minecraft The Minecraft multiplayer server allows two or more players to play Minecraft together ♡ 131 ↓ 297K CREATE	 official solr Solr is the popular, blazing-fast, open source enterprise search platform built on Apache Lucene™. ♡ 707 ↓ 52M CREATE	 official elasticsearch Elasticsearch is a powerful open source search and analytics engine that makes data easy to explore. ♡ 3.9K ↓ 310M CREATE
 official postgres The PostgreSQL object-relational database system provides reliability and data integrity. ♡ 7.1K ↓ 2B CREATE	 official ubuntu-upstart Upstart is an event-based replacement for the /sbin/init daemon which starts processes at ♡ 100 ↓ 1M CREATE	 official memcached Free & open source, high-performance, distributed memory object caching system. ♡ 1.4K ↓ 914M CREATE	 official rabbitmq RabbitMQ is an open source multi-protocol messaging broker. ♡ 2.8K ↓ 479M CREATE
 official celery Celery is an open source asynchronous task queue/job queue based on distributed message... ♡ 250 ↓ 3M CREATE	 official mysql MySQL is a widely used, open-source relational database management system (RDBMS). ♡ 8.7K ↓ 1B CREATE	 official mongo MongoDB document databases provide high availability and easy scalability. ♡ 6.3K ↓ 1B CREATE	 official mariadb MariaDB is a community-developed fork of MySQL intended to remain free under the GNU GPL. ♡ 3.0K ↓ 859M CREATE

Docker Engine

CE (Community Edition) is free & open source

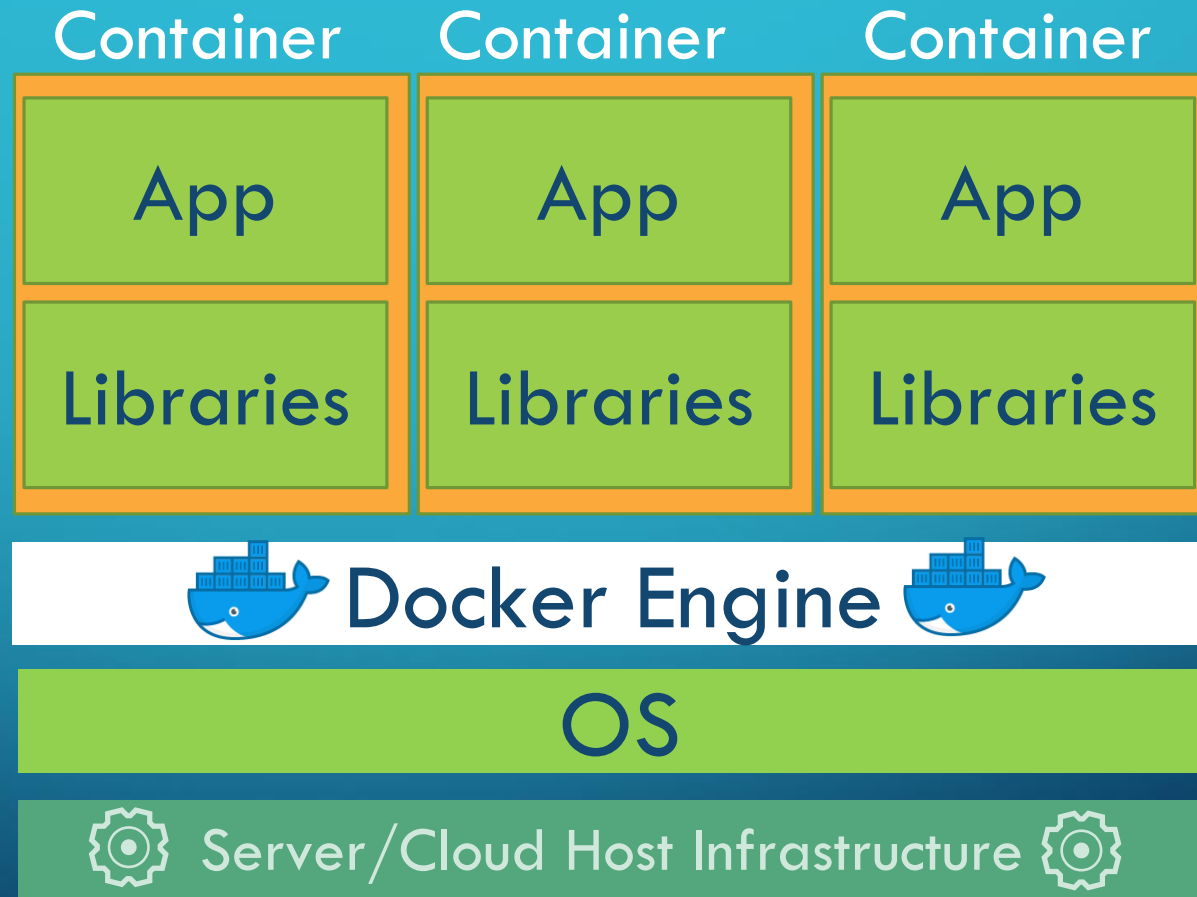


- **Docker Desktop:**
Mac & Windows
- **Azure, AWS**
- **Linux: Ubuntu, CentOS, Debian, Fedora**
- **Windows Server**

GREAT FOR DEV & TEST SCENARIOS!

- Isolated
- Consistent
- Portable - reliable behavior across environments
- Easy to use
- Easy to start & stop
- No installation

AND IN PRODUCTION . . .





➤ **Long running apps**

➤ **Short term apps**



➤ **One-off tasks**



ORCHESTRATION

`docker-compose.yml`

Container 1 Definition
build image using this DockerFile

Container 2 Definition
use pre-existing image XYZ

Container 3 Definition
build image from some other DockerFile

Points to code
& DockerFile

Existing XYZ image
e.g., SQL Server for Linux



Containers



Not just for DevOps



Share dev environment with source code



No-install frameworks, DB servers, etc.



Q&A

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