

Docker Hands-On

for Enterprise Java on Windows

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<https://github.com/bursutter>

Agenda

Ultra Brief Overview (we are here to get hands-on)

Demonstration (less talk more show)

Hands-on tutorials (less show more do):

- https://github.com/burrsutter/docker_tutorial
- https://github.com/burrsutter/docker_mysql_tutorial

Did not bring a laptop?

Go Agile

Practice Pair Programming

#1: BE GENTLE

Spooning by Bitbucket

<https://www.youtube.com/watch?v=dYBjVTMUQY0>



What is Docker

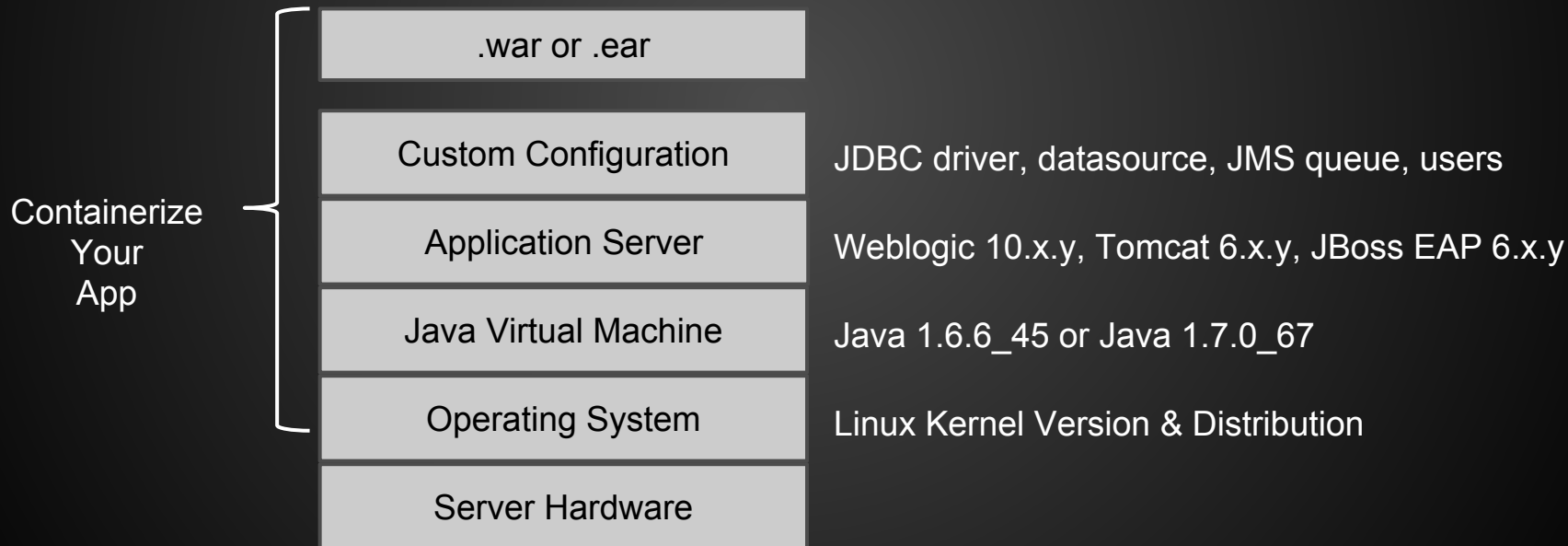
A format for a Linux container

A developer experience around containers

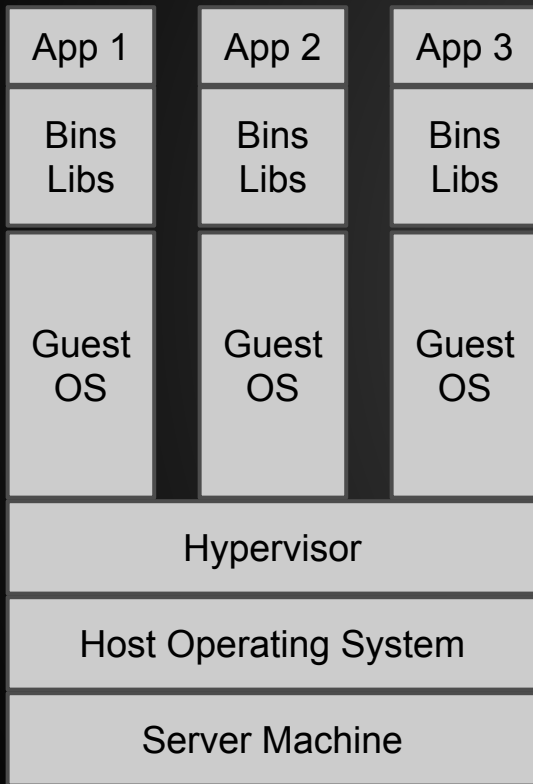
A company - formerly dotCloud

A Challenge

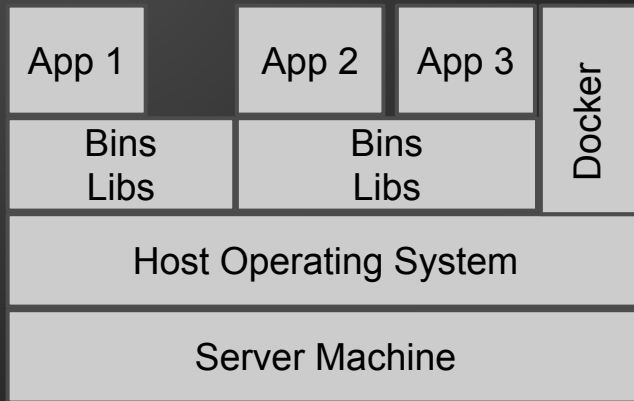
Have you ever had “/” vs “\” break your app? Or perhaps needed a unique version of a JDBC driver? Or had a datasource with a slightly misspelled JNDI name? Or received a patch for the JVM or app server that broke your code?



Virtualization vs Containers



- Shared bins/libs and Host Operating System make containers lighter
- You can run multiple versions of app dependencies (Java 6 and 7)
- “Golden Image” deployment model
- Process isolation



Pros vs Cons

Pros:

- Docker containers start very fast, take less memory
- Super easy to try out a new technology (e.g docker pull centos)
- Supports the “immutable image” deployment model
- It caches layers to make builds faster

Cons:

- It is not a VM - it is a process running within the Host OS, do not assume you can run any flavor of container OS on any host OS
- It is not perfectly portable - you will eventually wish to get out of boot2docker-vm into a real Linux VM - one that more close matches your production environment
- Lineage of docker images at Docker Hub is unknown

Docker Commands

`docker ps`

`docker images`

`docker pull centos/wildfly`

`docker run centos /bin/echo "Hello World"`

`docker run -it centos/wildfly`

<https://registry.hub.docker.com/>

Official Repositories



ubuntu  The Official Ubuntu base image



WordPress is a free and open source blogging tool and a content management system



Popular open-source relational database management system



Document-oriented NoSQL database



Official CentOS base image



High performance reverse proxy server

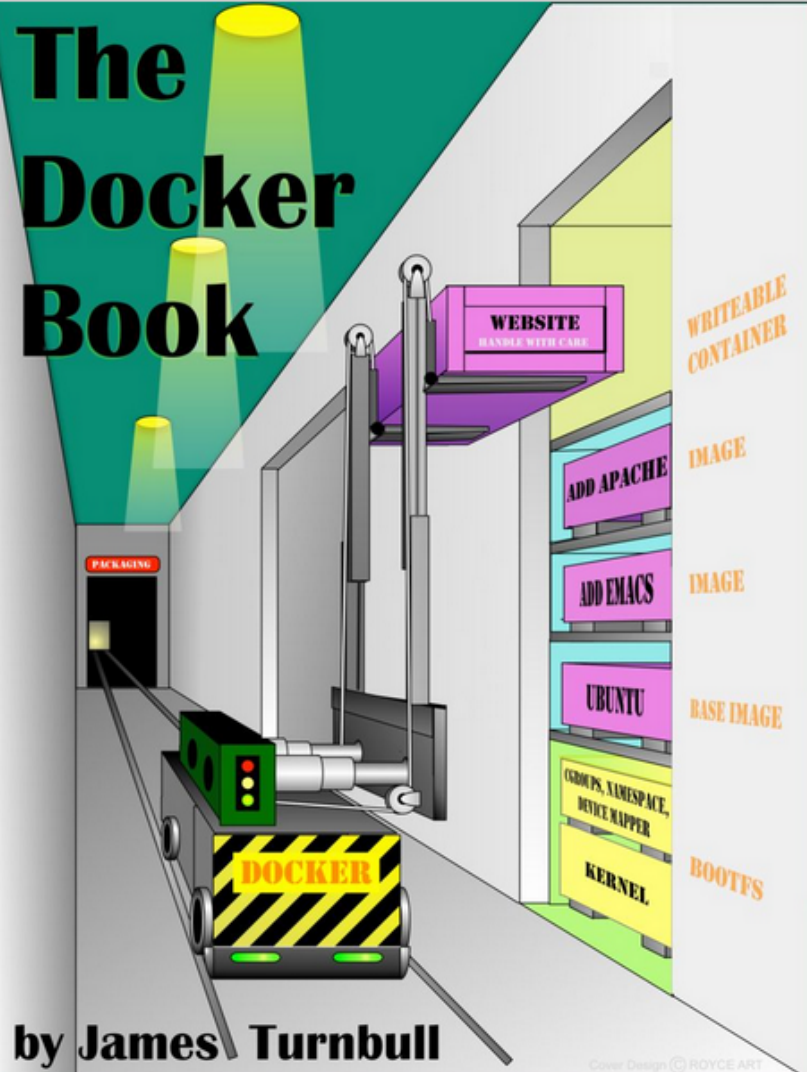


Relational database management system



Node.js is a platform for scalable server-side and networking applications

The Docker Book



by James Turnbull

Let's Go

https://github.com/burrsutter/docker_tutorial

https://github.com/burrsutter/docker_mysql_tutorial