

# But It Works on My Machine!

How Container Technologies Like Docker Can Revolutionize  
Continuous Integration

**by Glenn Brown**

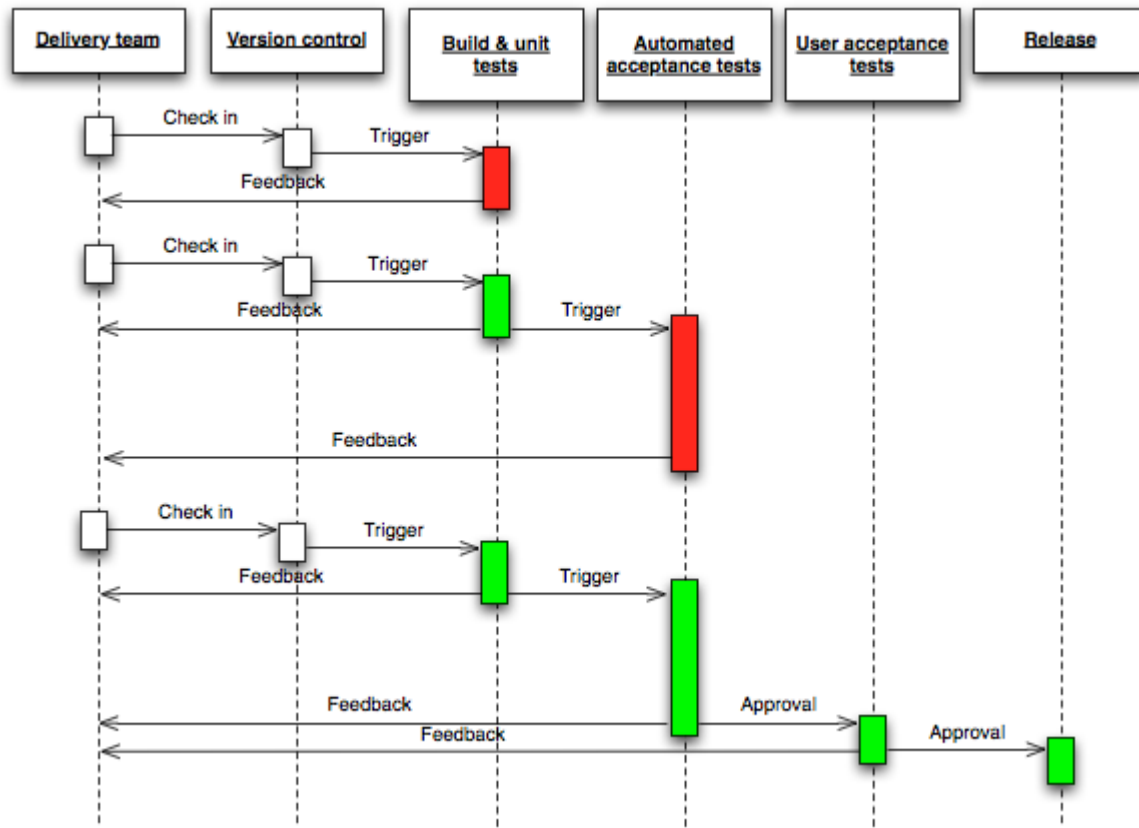
[glenn.brown@mavenwave.com](mailto:glenn.brown@mavenwave.com)



# Who Am I?



# Build Pipeline



# Build Pipeline

## Goals of a Build Pipeline

- **Visibility**



# Build Pipeline

## Goals of a Build Pipeline

- **Visibility**
- **Consistency**



# Build Pipeline

## Goals of a Build Pipeline

- **Visibility**
- **Consistency**
- **Quality Assurance**



# Build Pipeline

## Goals of a Build Pipeline

- **Visibility**
- **Consistency**
- **Quality Assurance**
- **Fast Feedback**





# Problems We Face -

## Environment Disparity





# Problems We Face -

## Non-Standard Configuration

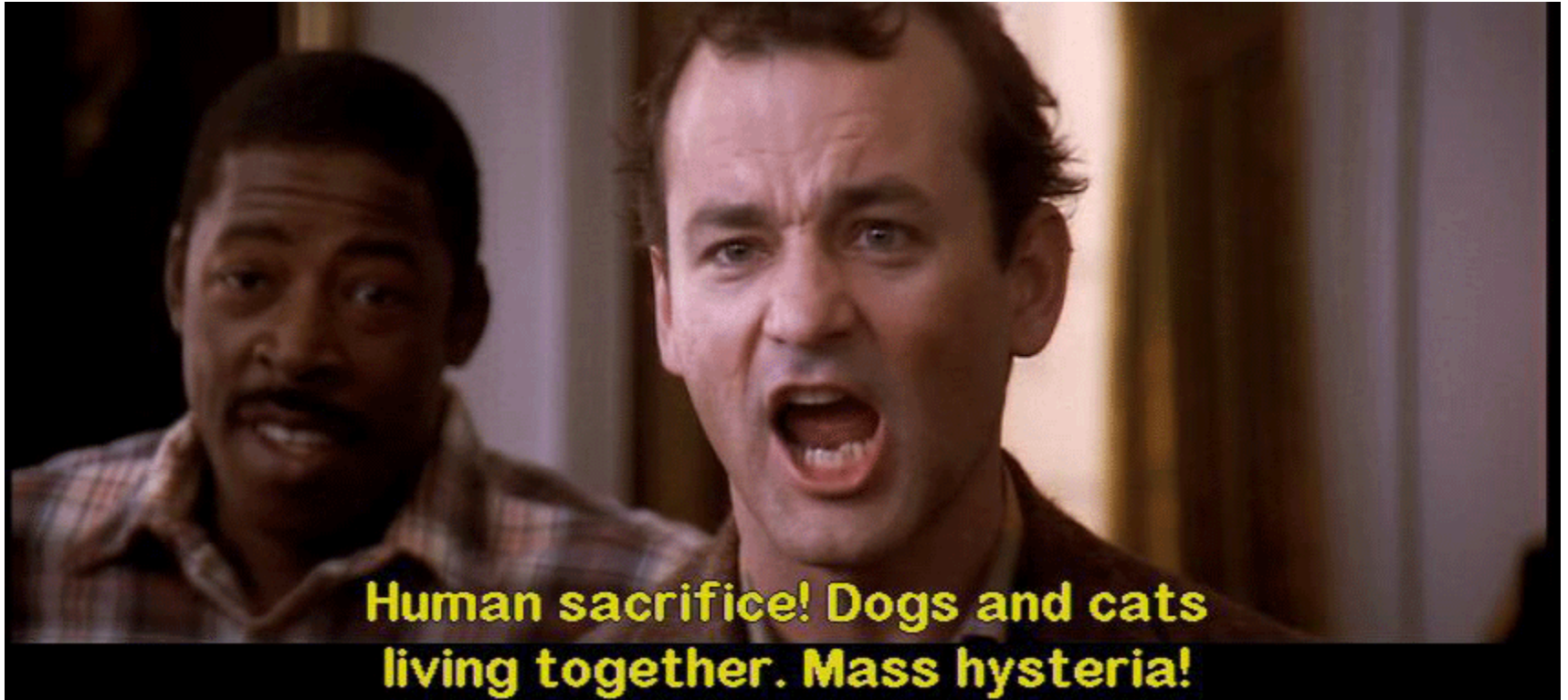


# Problems We Face -

## Tribal Knowledge



# The Result - Mass Hysteria!!!



# What Do We Need?

- A consistent, portable server environment

# What Do We Need?

- A consistent, portable server environment
  - Servers built via code not human effort

# What Do We Need?

- A consistent, portable server environment
  - Servers built via code not human effort
  - Light weight so it can run anywhere

# What Do We Need?

- A consistent, portable server environment
  - Servers built via code not human effort
  - Light weight so it can run anywhere
  - Allow images to derive from other images



# What Do We Need?

- A consistent, portable server environment
  - Servers built via code not human effort
  - Light weight so it can run anywhere
  - Allow images to derive from other images
  - Shareable via centralized repositories

# Servers Built Through Code

FROM ubuntu

ENV DEBIAN\_FRONTEND noninteractive

RUN apt-get install -y dialog

RUN apt-get update

RUN apt-get upgrade

RUN apt-get -y install tomcat7 tomcat7-admin

RUN apt-get -y install tomcat7-admin

RUN apt-get -y install tomcat7-user

ADD ./tomcat-users.xml /etc/tomcat7/tomcat-users.xml

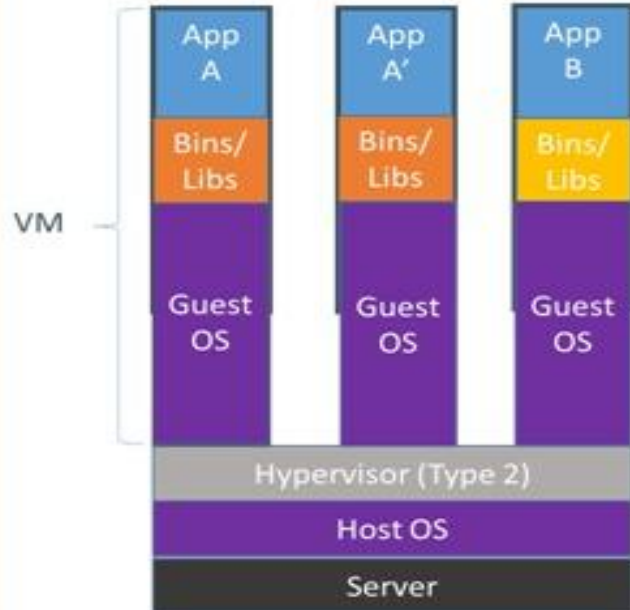
EXPOSE 8080

CMD service tomcat7 start **&&** tail -f

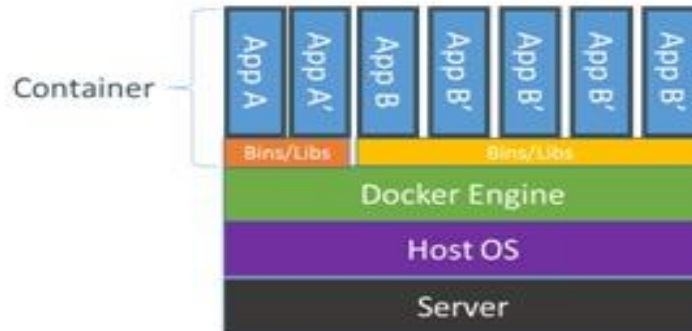
/var/lib/tomcat7/logs/catalina.out

# Lightweight - Can Run Anywhere

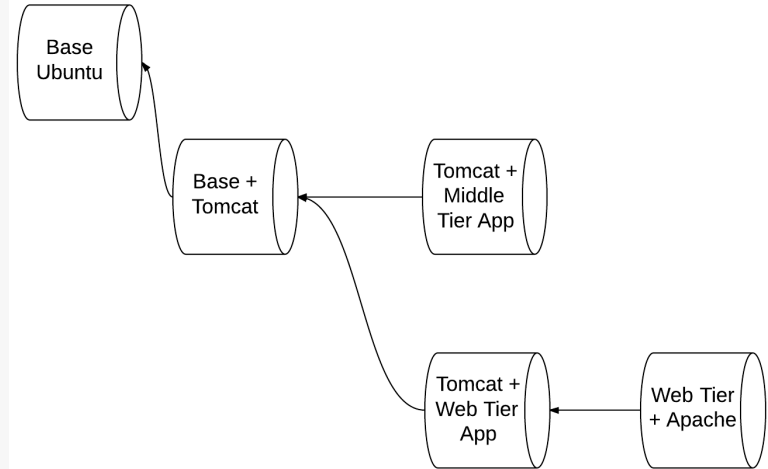
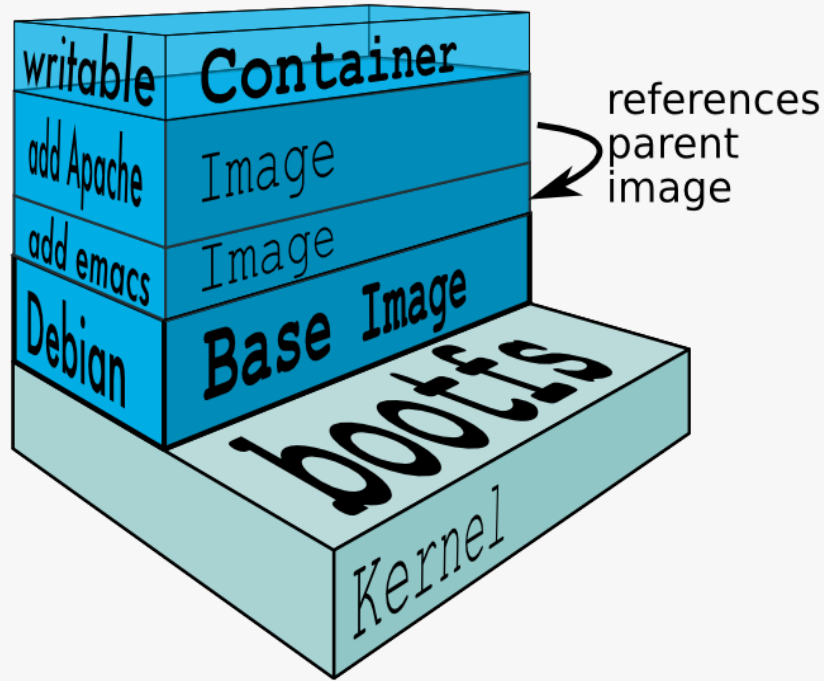
## Containers vs. VMs



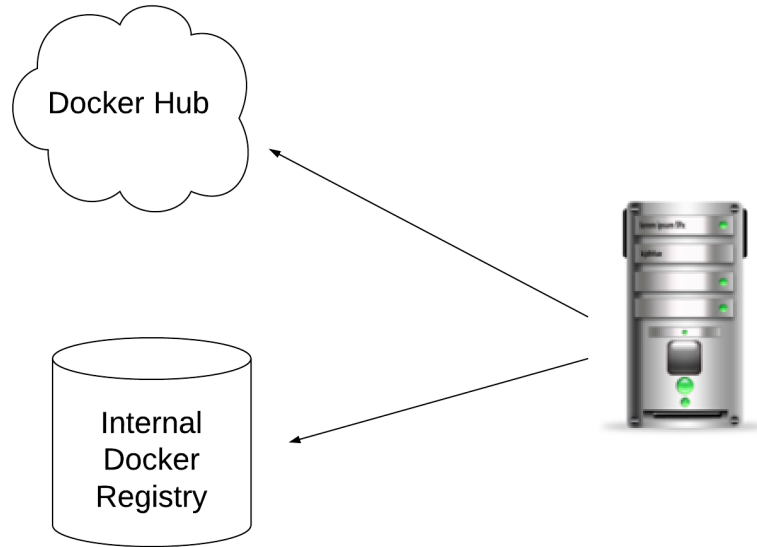
Containers are isolated, but share OS and, where appropriate, bins/libraries



# Can Derive from Other Images



# Sharable via Centralized Repos



# Any Questions?

