

# DOCKER FOR DEVS



# ABOUT ME

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- » I do Node.JS on hardware!
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# WHY SHOULD I CARE ABOUT DOCKER? I'M NOT A DEVOPS ENGINEER!



**MAYBE NOT. BUT YOU KNOW WHAT YOU ARE?  
A PROBLEM SOLVER.**

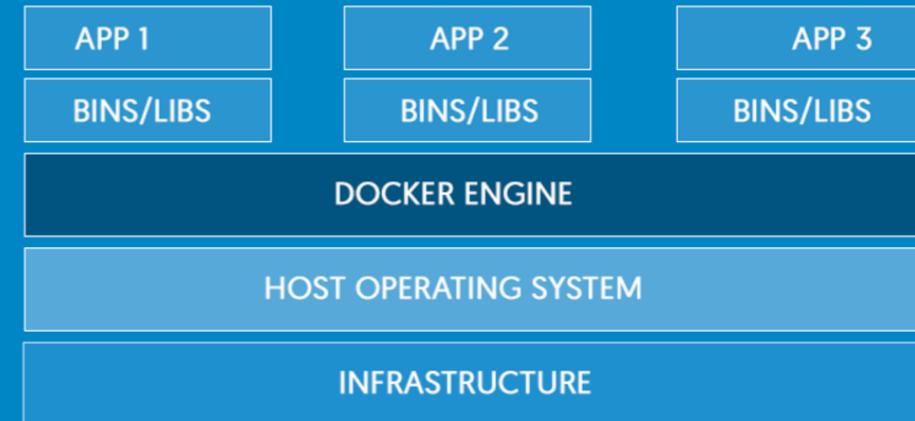
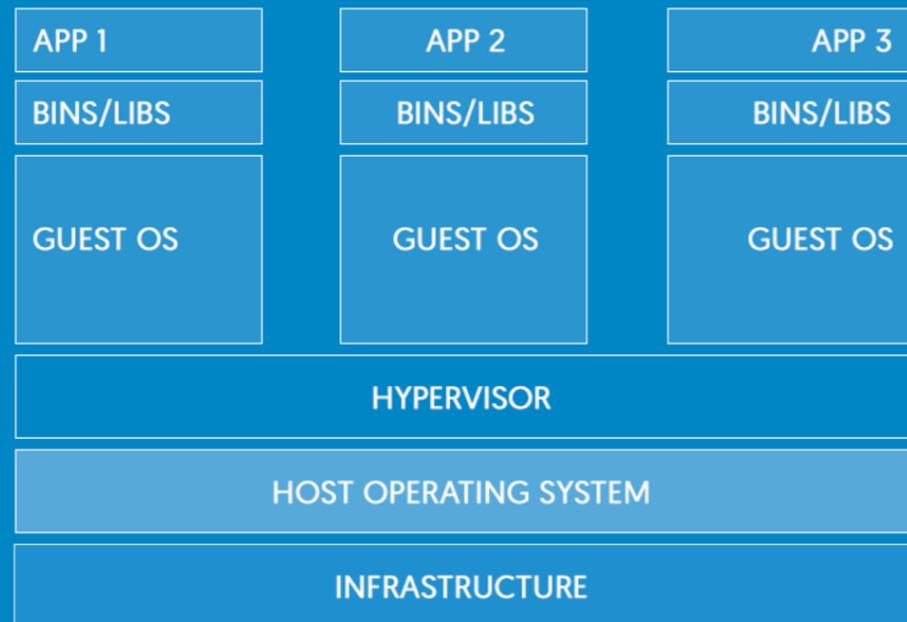
# MAYBE YOU'VE ENOUNTERED THE FOLLOWING PROBLEMS

- » "Works on my machine!"
- » > 2 versions of Node installed on your machine
  - » (you know every nvm command by heart)
- » You need a local copy of a database
  - » Ever install PostgreSQL?
  - » What happens when you add another app?

# WHY DOCKER WORKS FOR THIS

- » Containers are automated/replicatable
- » Containers are "quarantined" from your machine
- » Containers are easily shared

# HOLD ON. WHAT'S THE DIFFIRENCE BETWEEN A CONTAINER AND A VM?



## VIRTUAL MACHINES

Virtual machines include the application, the necessary binaries and libraries, and an entire guest operating system -- all of which can amount to tens of GBs.

## CONTAINERS

Containers include the application and all of its dependencies --but share the kernel with other containers, running as isolated processes in user space on the host operating system. Docker containers are not tied to any specific infrastructure: they run on any computer, on any infrastructure, and in any cloud.

# HOLD ON. WHAT'S THE DIFFIRENCE BETWEEN A CONTAINER AND A VM?

- » lighter
- » (usually) faster
- » composable

**OKAY, BUT I NEED TO KNOW A LOT OF DEVOPS TO USE THESE, RIGHT?**

# DON'T WORRY, YOU CAN DO IT!



**LET'S START WITH  
SPINNING UP A REDIS DB**

# VOCABULARY

A Docker container is an instance of a Docker image-- like a db, or a web server.

A Docker Image is a template that can be used to spin up containers or modified to create new images

# WHAT WE'RE GONNA DO

- » pull down the redis image
- » run it to create a container
- » access that container with node

**HOPEFULLY NOW I HAVE PIQUED YOUR  
INTEREST**



GIFAK.NET

**SO, LET'S SPIN UP A  
NODE.JS WEB SERVER WITH EXPRESS**

# WHAT WE'LL DO

- » Examine a Dockerfile
- » Look at copying files from our computer to our container and running commands on an existing image
- » Create our own image
- » Run it!

# **THAT'S COOL KAS. BUT...**

What if I want to change my server  
WITHOUT rebuilding my image every single  
time

**LET'S ADD A  
HOST VOLUME MOUNT  
TO OUR CONTAINER**

# A WHA?

A host volume mount gives your container access to a subset of your host (computer's) filesystem

**LET'S DO IT!**

# WHOA.

Yeah! You now have a working web server  
that we can edit in real-time!



**NOW LET'S DO SOME  
REAL  
DOCKER  
MAGIC**

# WHAT WE'RE GOING TO

- » Spin up a Redis db
- » Connect it to our Express server
- » Access and set stuff from our Express app
- » maintain live code editing

# BUT FIRST, A JOKE BREAK



YOU KNOW WHY HUNTING ME  
WOULD BE A BAD IDEA?



'CAUSE IT'S ILL-EAGLE!!



**OKAY, NOW THAT YOU'VE LAUGHED (OR  
GROANED) OFF THAT FEELING OF**



[whatshouldwecallme](http://whatshouldwecallme)

# LET'S TALK ABOUT DOCKER-COMPOSE

- » self-explanatory name, kinda
- » Lets you compose multiple docker containers into one networked bundle

# WHAT WE'LL DO

- » Create a docker-compose file using the redis image and the image we created
- » spin up our db and Node containers with it
- » designate a host file mount
- » spin it up!

# HOPEFULLY NOW YOU FEEL LIKE THIS ABOUT DOCKER



**TO LEARN MORE, CHECK OUT THE DOCKER DOCS!  
(THEY'RE SUPER GREAT.)**

# THANKS FOR LISTENING!



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