



# The Docker Development Template for PHP



Jan Burkl  
Solution Consultant  
Zend, a Rogue Wave Company  
[jan@zend.com](mailto:jan@zend.com) // [@janatzend](https://twitter.com/janatzend)  
[jan.burkl@roguewave.com](mailto:jan.burkl@roguewave.com)

A young boy in a flight suit and helmet is looking up at a glowing starry sky from the cockpit of a plane. The image has a dreamlike, futuristic feel.

# Developer's Dream

<https://www.justwatch.com/de/Film/Der-Flug-des-Navigators>

1. Get Code
2. Get Dependencies
3. Start the Engines



**zend Expressive**  
(+ a little JS)

# Demo Video

<https://s3.eu-central-1.amazonaws.com/stuttgart-office-files/vault/video/particulum-mobile-large.webm>

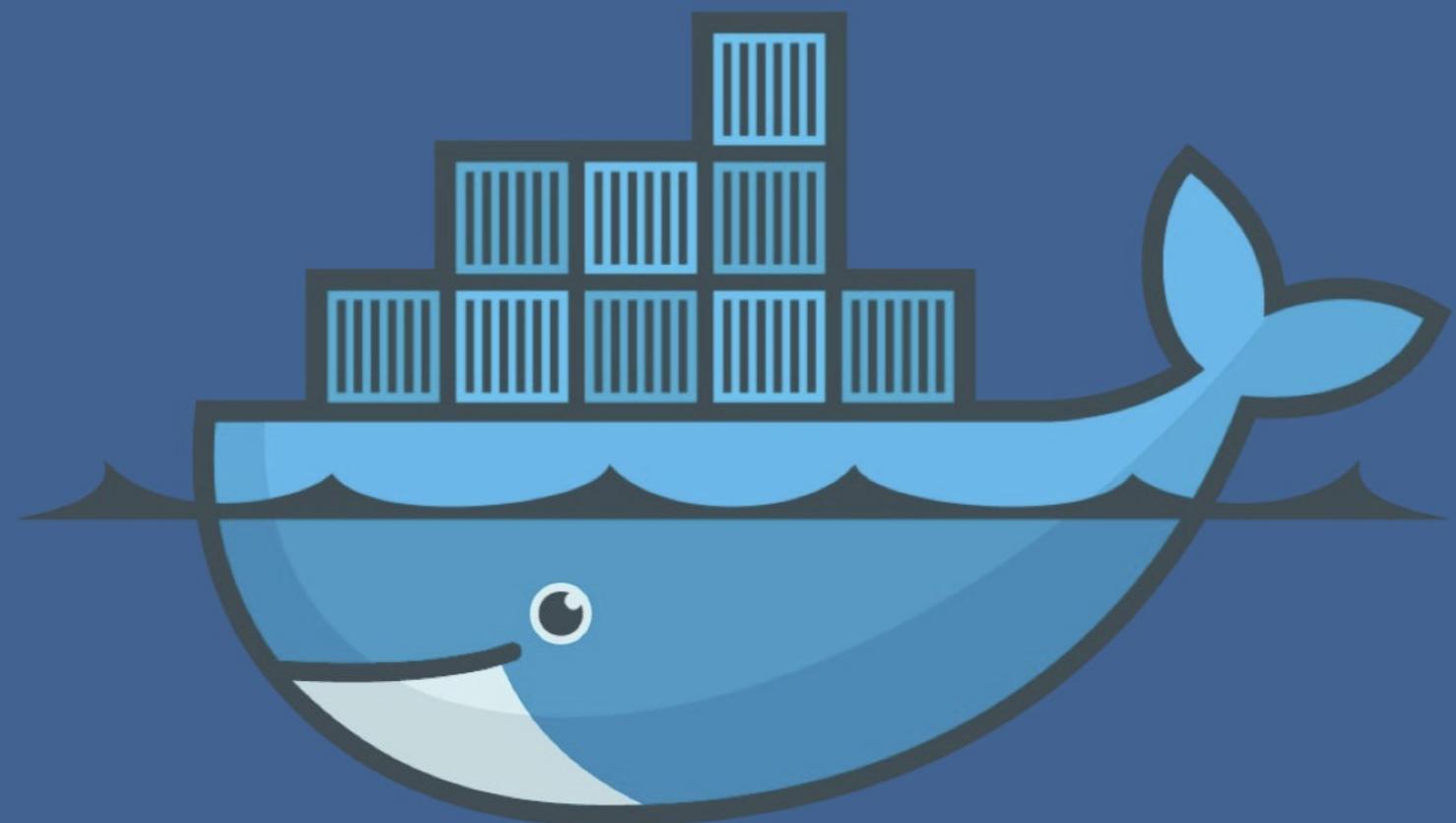
A scene from the movie Deadpool 2. On the left, Deadpool (Ryan Reynolds) is shown from the waist up, wearing his signature red and black suit with his mask on. He is looking towards the right. On the right, Cable (Josh Brolin) is shown from the waist up, wearing his silver and red armored suit. He has a shocked or surprised expression on his face. They appear to be standing on a bridge or industrial structure. A dark, semi-transparent rectangular box covers the lower half of the image, containing the text.

What has  
happened?

# My example project particulum-mobile

<https://bitbucket.org/account/user/janatzendteam/projects/PAR>

# What do I need?



**docker**

Docker  $\neq$  VirtualBox

**NGINX**



***php***



**redis**



One Daemon

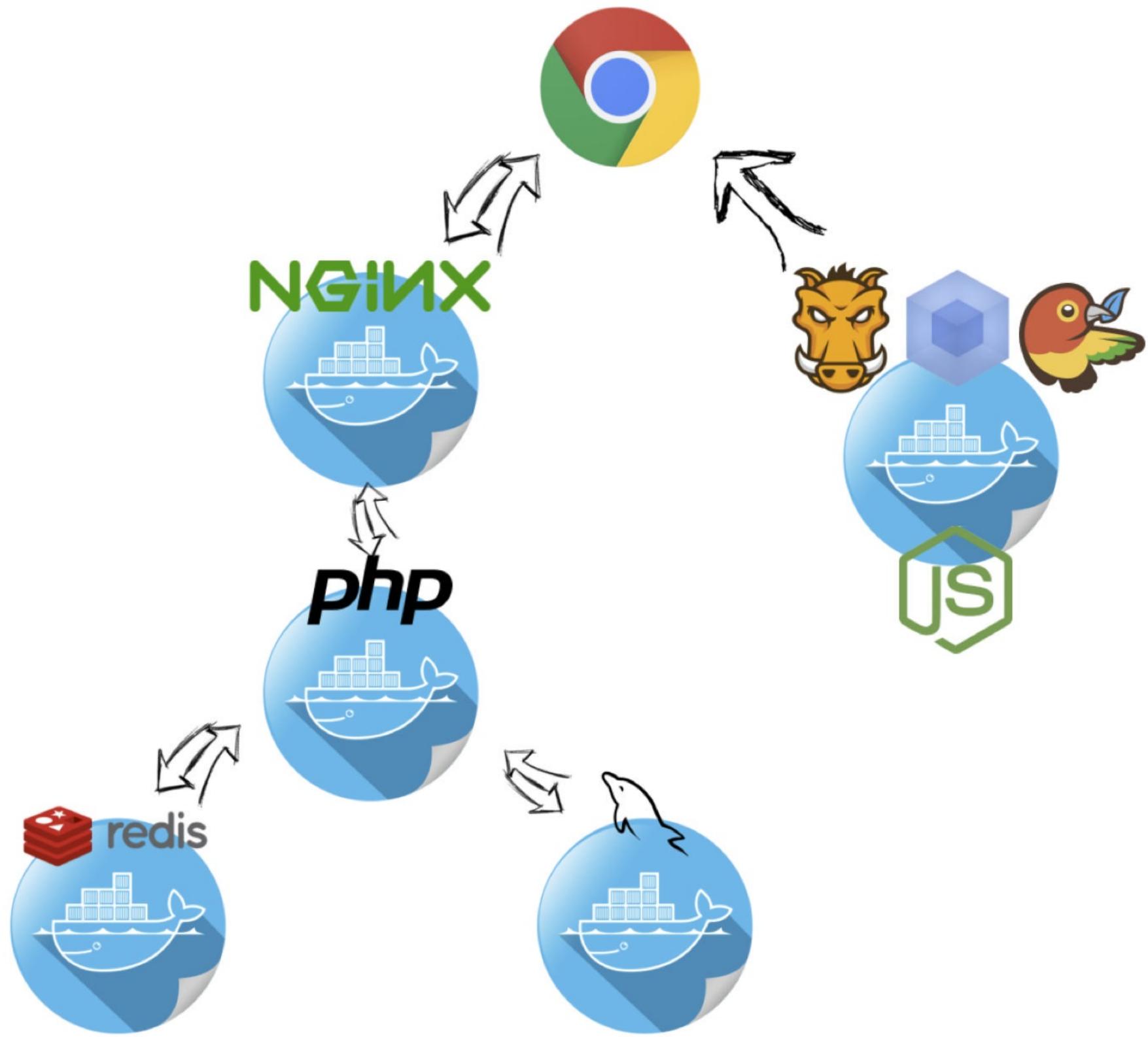
=

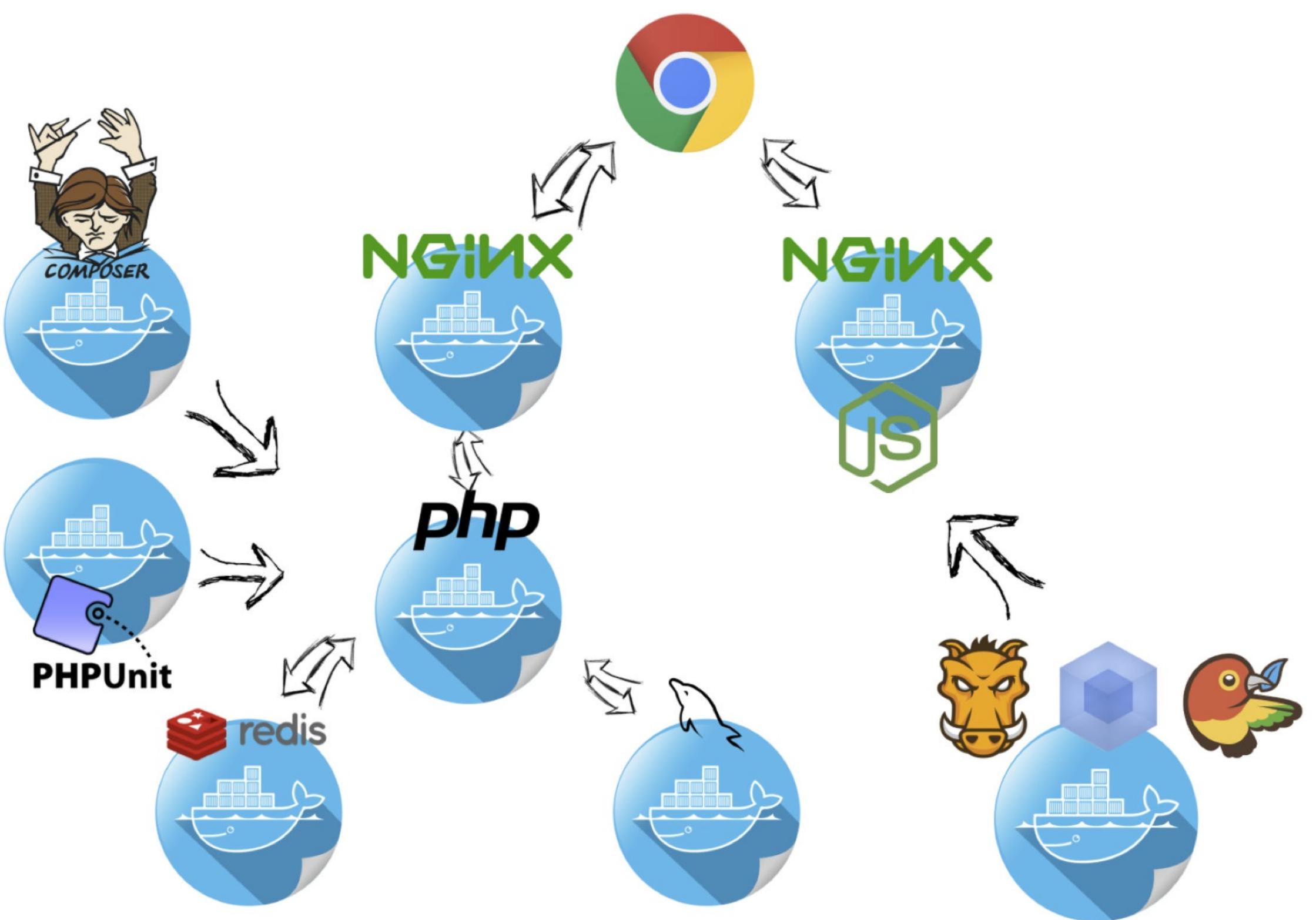
One Container

"In almost all cases, you should only run a single process in a single container. Decoupling applications into multiple containers makes it much easier to scale horizontally and reuse containers."

# Docker Compose

"Compose is a tool for defining and running multi-container Docker applications."







# Challenge

```
docker run -d -i -t -p 80:80 -p \  
3000:3000 -p 3001:3001 -p \  
2222:22 --name gsd alankent/gsd
```

```
docker run -it --rm --name my-running-script  
\  
-v "$PWD":/usr/src/myapp \  
/bin/bash -c "cd /usr/src/myapp & npm start"
```

```
3000:3000 -p 3001:3001 -p \  
2222:22 --name gsd alankent/gsd
```

```
docker run -it --rm --name my-running-script  
\  
-v "$PWD":/usr/src/myapp \  
-w /usr/src/myapp php:7.0-cli \  
php your-script.php
```



Duct tape works anywhere.  
Duct tape is magic and  
should be worshipped.

Andy Weir, The Martian

docker-compose.yml  
docker-compose-setup.yml  
(.env)

<https://bitbucket.org/janatzendteam/particulum-mobile-master/src/masterbitbu/docker-compose.yml>

docker-compose:  
helps me defining (dev)  
infrastructure

A close-up, slightly blurred photograph of Ferris Bueller, played by Matthew Broderick. He is looking directly at the camera with a neutral expression. He has dark hair and is wearing a light-colored, striped button-down shirt.

# Makefile

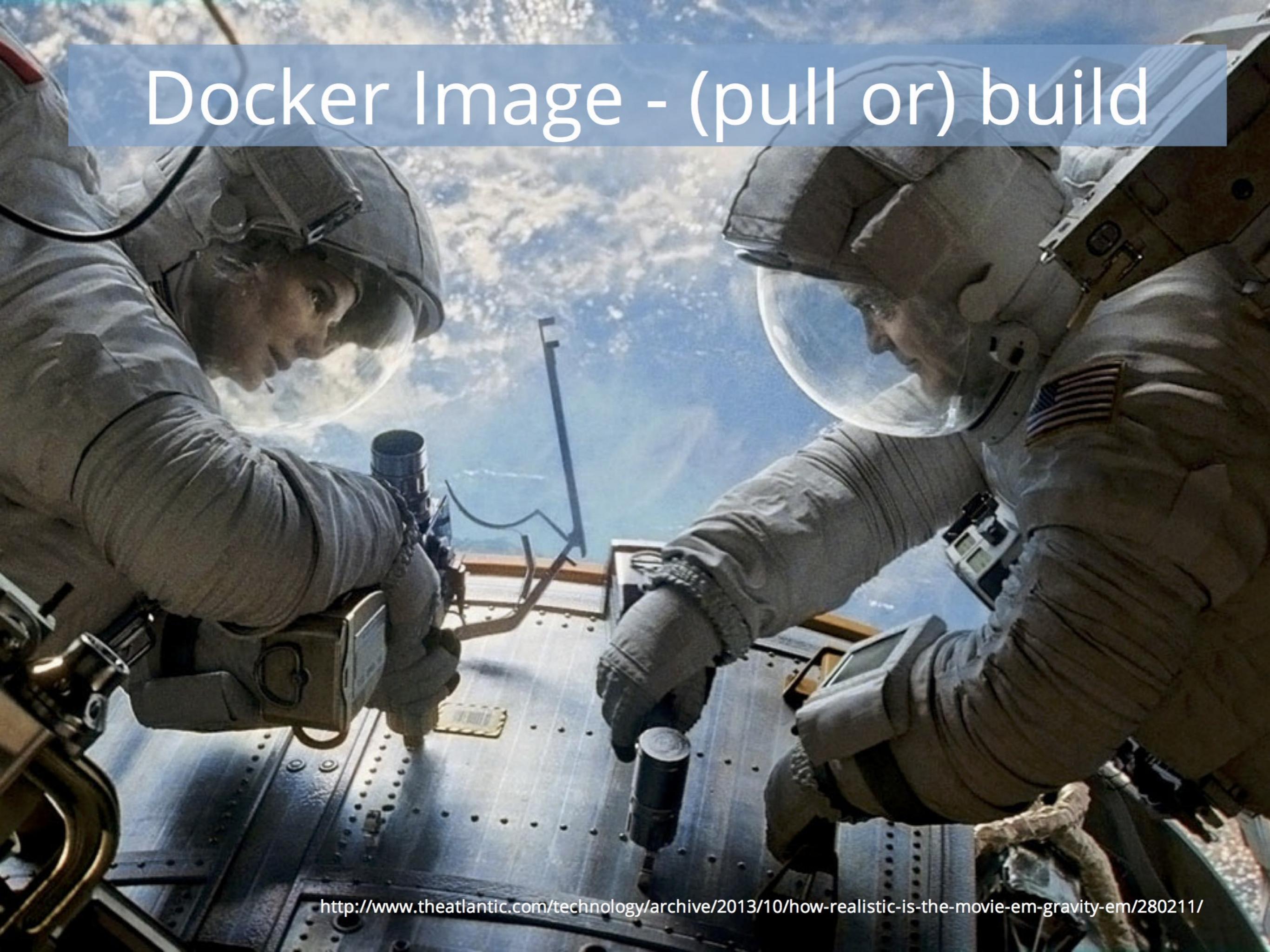
<https://bitbucket.org/janatzendteam/particulum-mobile-master/src/master/Makefile>

make:  
helps me controlling the  
infrastructure

# Important Commands:

- make start
- make up
- make down
- make clean
- make build-dev

# Docker Image - (pull or) build

A photograph of two astronauts in full space suits, including helmets with visors, working on a metallic structure in the void of space. One astronaut's suit has an American flag patch on the arm. They are using tools and equipment attached to the structure. The background shows the blue and white of Earth's atmosphere and clouds.

- Docker Hub
- Private Docker Repository
- Local Dockerfile
- Remote Dockerfile



FAIL

- Missing Best Practices
- Docker Updates
- Docker Compose Updates
- Permissions
- Persistent Data

# Permissions?

## What's the problem?

- apache writes files
- write access for www-data
- www-data not available on host
- use uid and gid of local user (#)
- chmod on apache dirs

Database  
or  
Where to store my  
persistent Data?

- Volumes
- map local dir to /var/lib/mysql

A scene from the movie Guardians of the Galaxy. The characters Star-Lord (Chris Pratt), Gamora (Zoe Saldana), Drax (Dave Bautista), and Rocket (voiced by Bradley Cooper) are looking upwards in awe at a massive, bright, glowing orb in a dark, star-filled space. They are all wearing their signature futuristic gear.

Benefits

- no huge files to handle
- exchange containers
- every step is documented
- quick start

Danke schön

jan@zend.com / @janatzend

<https://bitbucket.org/account/user/janatzendteam/projects/PAR>

<https://janatzend.github.io/talks/>



makefile  
Dockerfile  
Docker Compose  
Docker Hub

no huge files to handle  
exchange containers  
every step is documented  
quick start

