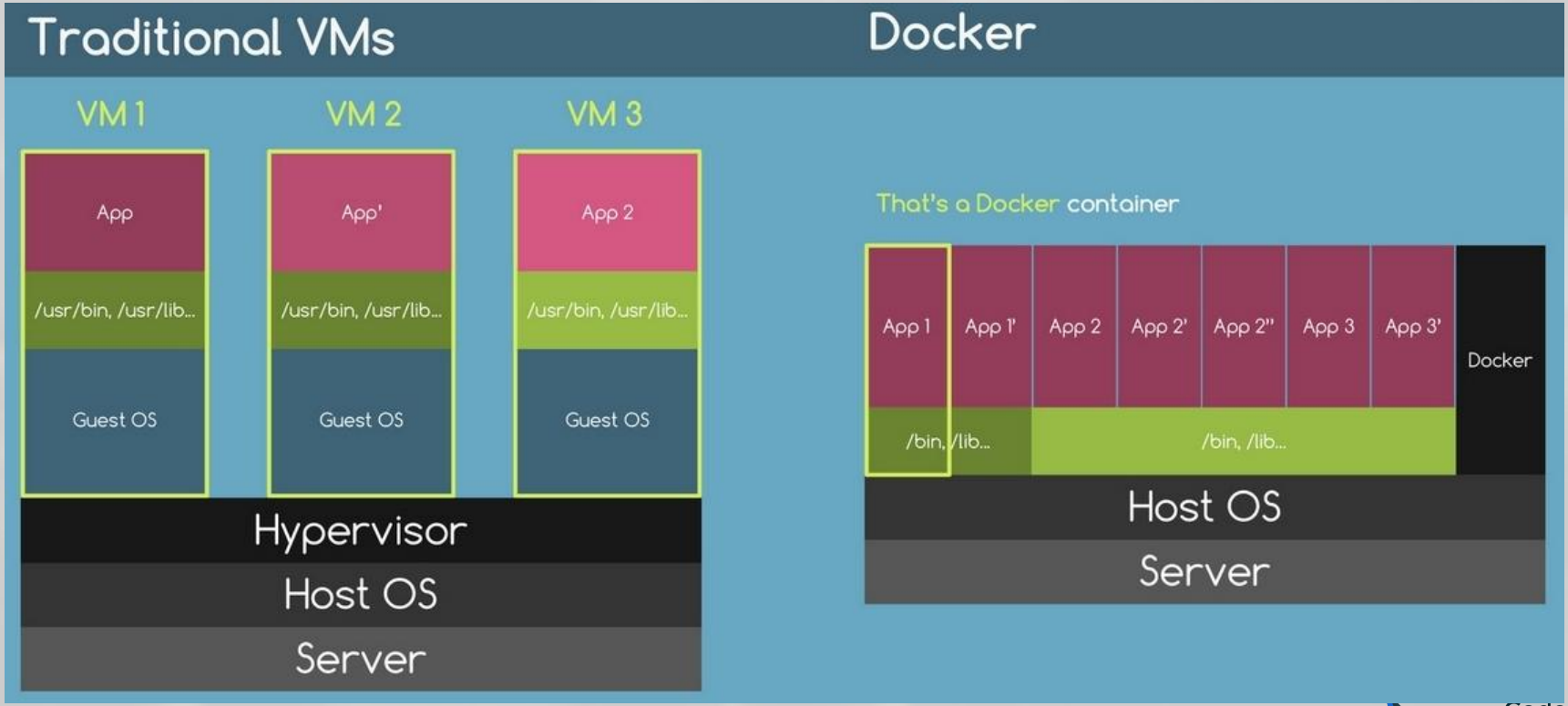
Marc Douchement, Antoine Cabot

What is docker ?

« Docker is an open-source engine to easily create lightweigt, portable, self-sufficient containers from any application. The same container that a developer builds and test on a laptop can run at scale, in production, on VMs, OpenStack cluster, public clouds and more ! »

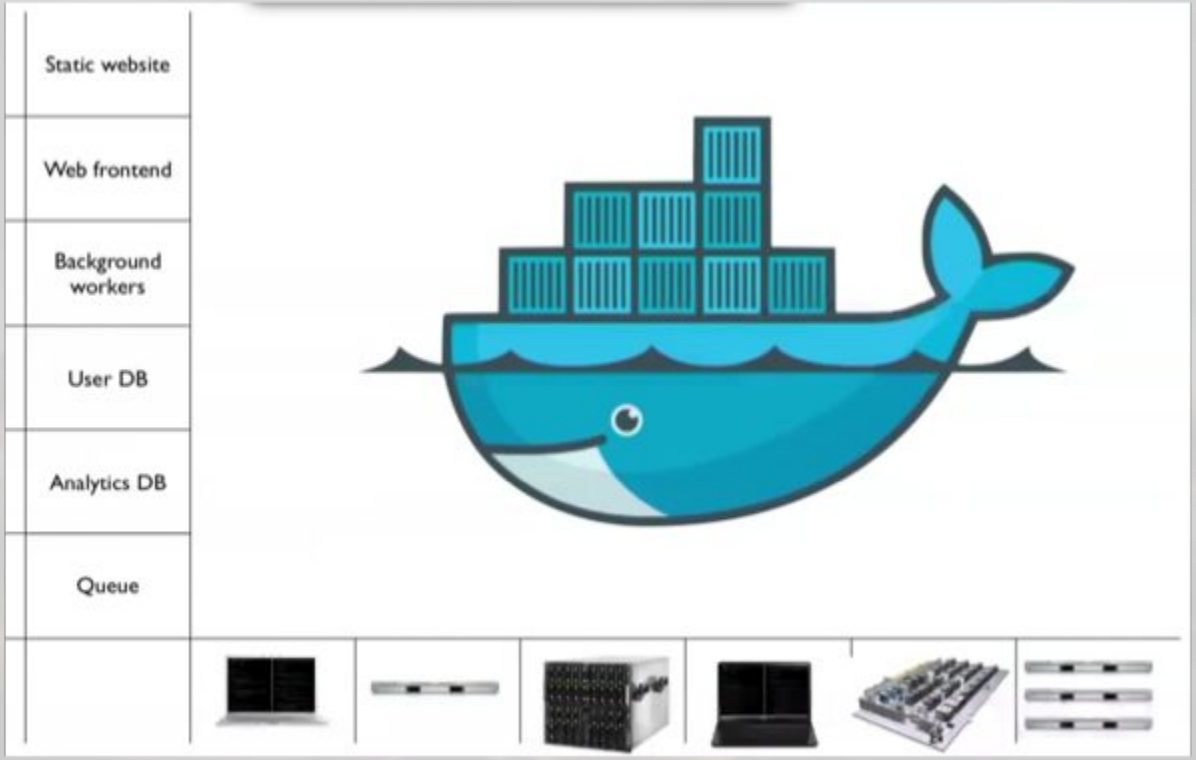
Code d'Armor

What is Docker ?



Why this name ?

Why this name ?



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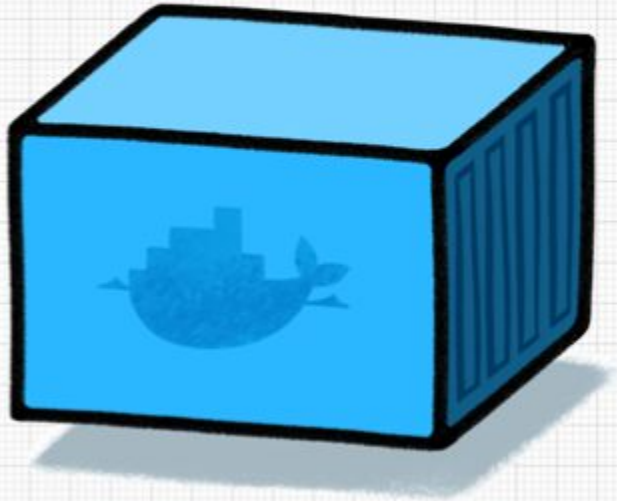
The real value of Docker is not technology



It's getting people to agree on something

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Un peu d'histoire

- Dotcloud – PaaS platform launched in 2011 by Solomon Hykes & Sebastien Pahl (promo EPITECH 2006)
- Docker released as an open source project in march 2013
- Gluster CEO Ben Golub joins Docker as CEO
- PaaS platform sold to CloudControl in july 2014

Code d'Armor

Un projet Open Source

After a year on GitHub !

- 15 800 stars
- 11 098 commits
- 637 contributors
- +100 meetup groups worldwide

Version 1.0 released for DockerCon in june

Version 1.2 released on august 22nd

Version 1.3 released last week

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Un peu de technique ?

Technically: ~chroot on steroids

- A container is a set of processes running on top of a common kernel
- Isolated from the rest of the machine
- Using « namespaces » to have private views of the system (networks, PID tree, mountpoints…)
- And « cgroups » to have metered/limited/reserved resources

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encore ?

From a distance, it looks like a VM !

- I can SSH into it
- I can have a root access in it
- I can install packages
- I have my own network interface
- I can tweak routing table
- I can mount filesystems
- …

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Lightweight, fast, disposable virtual environment

- Boot in milliseconds
- Just a few MB of disk/memory usage
- Bare metal performances is possible

The new way to build, ship, deploy and run your apps!

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Pourquoi on en parle autant ?

- Containers have been around for decades
- Linux containers have been around for years
- Docker have « commoditized » LXC by adding
  - AUFS (AnotherUnionFS)
  - Client-Server architecture with an HTTP API
  - Registry

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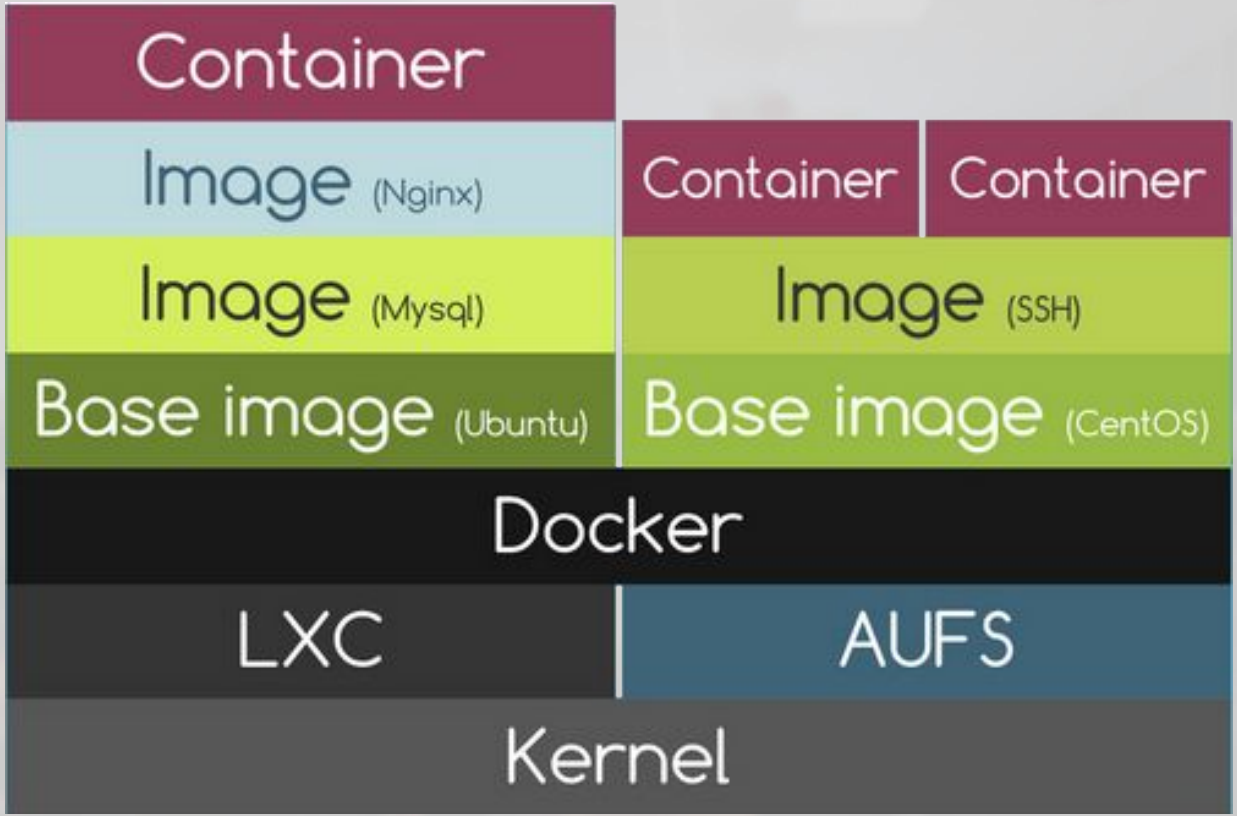
Les termes Docker



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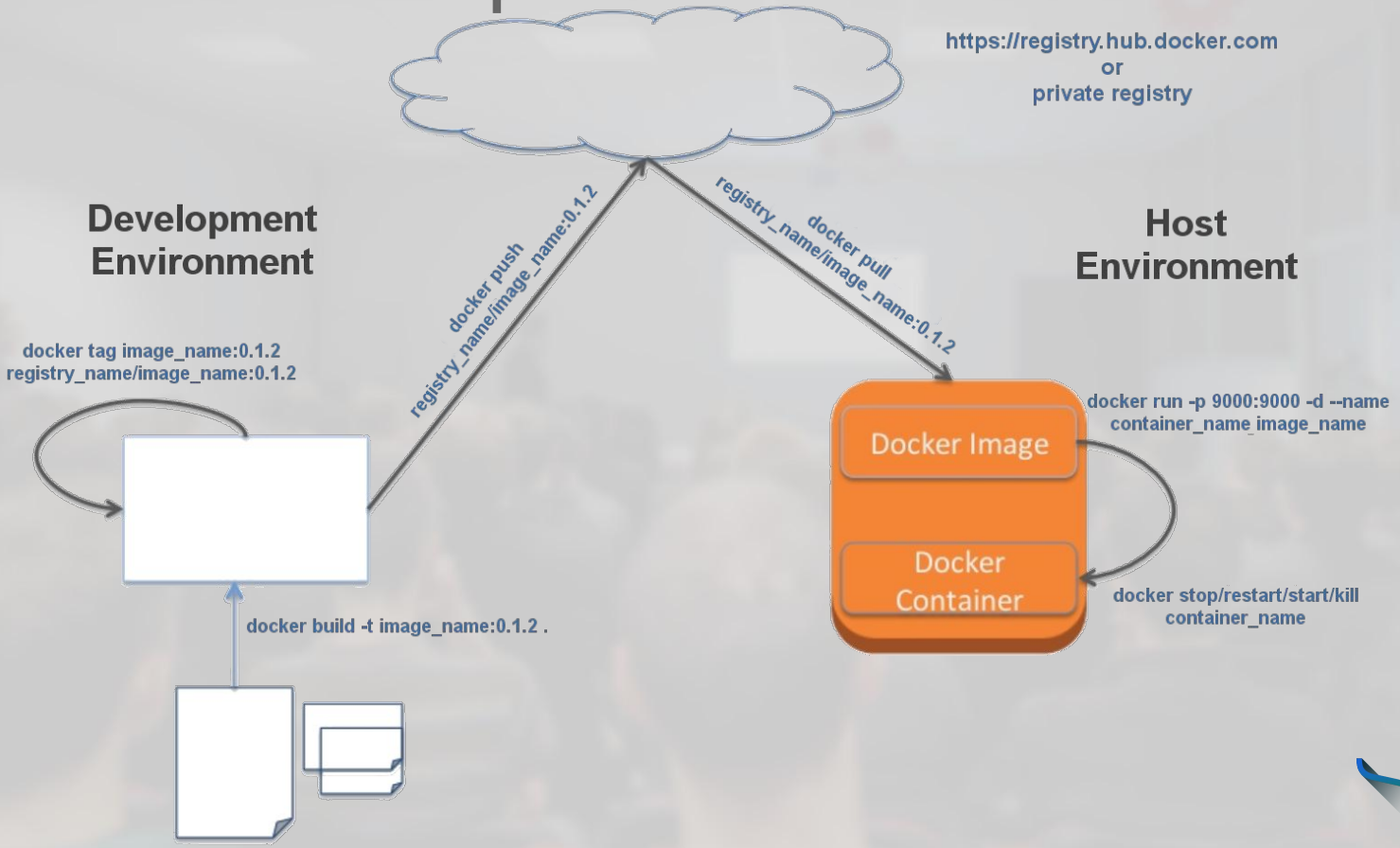
Workflow simple



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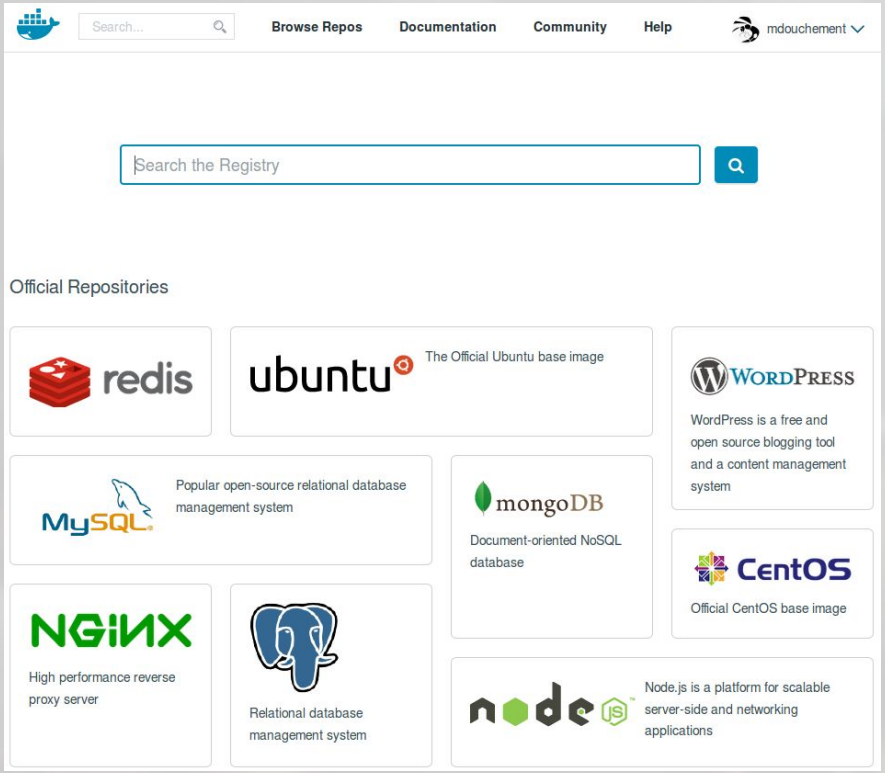
Démo time!

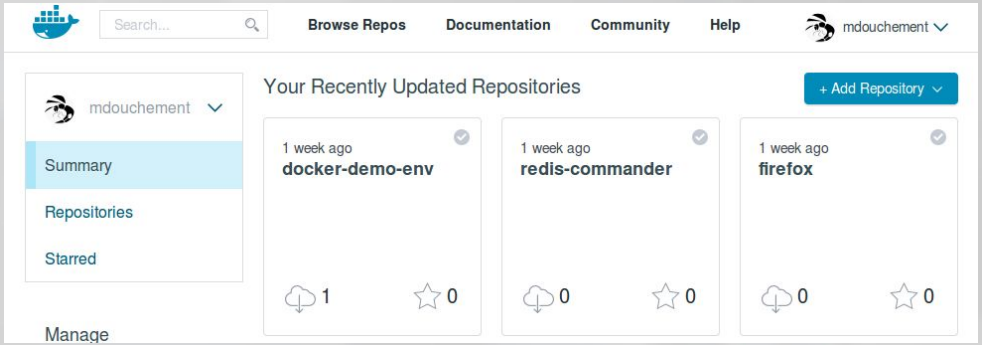
Develop a hello_word web application and deploy it on port 8080

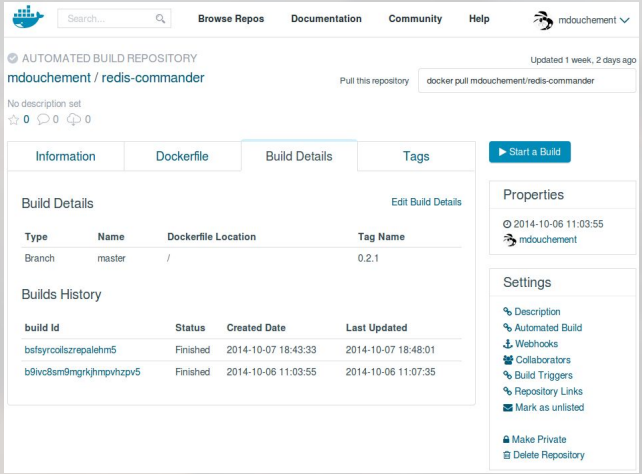
- Developer:
  - Develop the application
  - Build image
- DevOps
  - Deploy the image on port 8080

Code d'Armor

Docker Hub







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Des trucs en plus ?

https://docs.docker.com/userguide/

https://github.com/GoogleCloudPlatform/kubernetes

http://www.projectatomic.io/

http://gaudi.io/

http://panamax.io/

https://mesosphere.io/

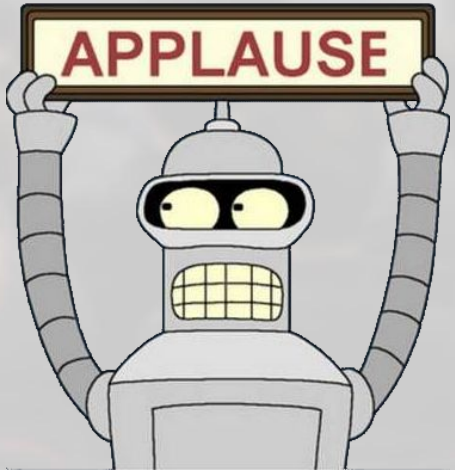
http://decking.io/

https://github.com/google/lmctfy

https://brooklyn.incubator.apache.org/

https://github.com/ClusterHQ/flocker

https://speakerdeck.com/slok/ship-it-with-docker



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