

PowerShell Conference Asia

Windows Server Containers

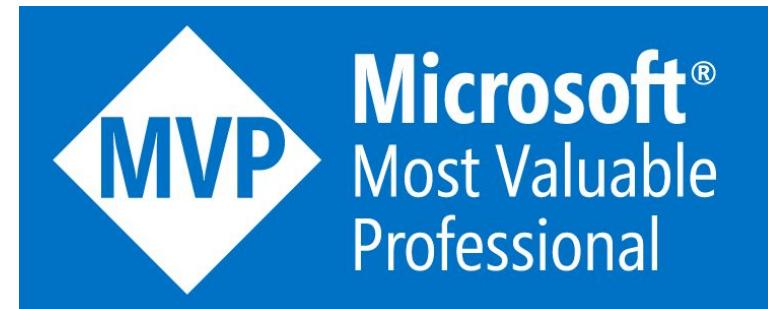
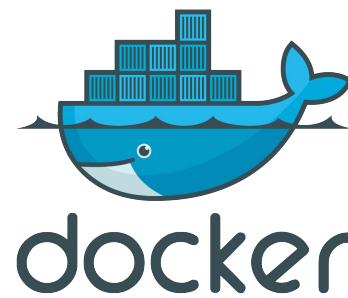
Flynn Bundy

@bundyfx

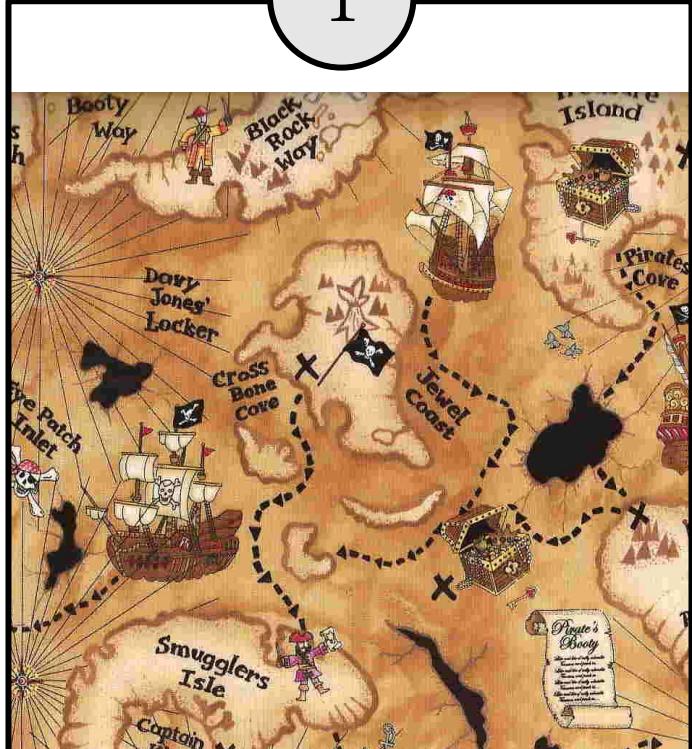




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Singapore 2016



1



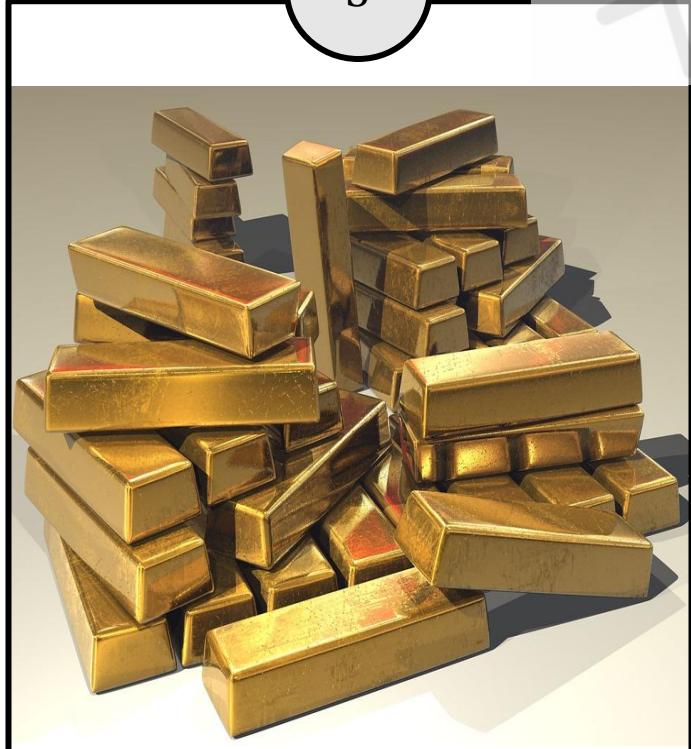
What is Docker?

2



Features

3



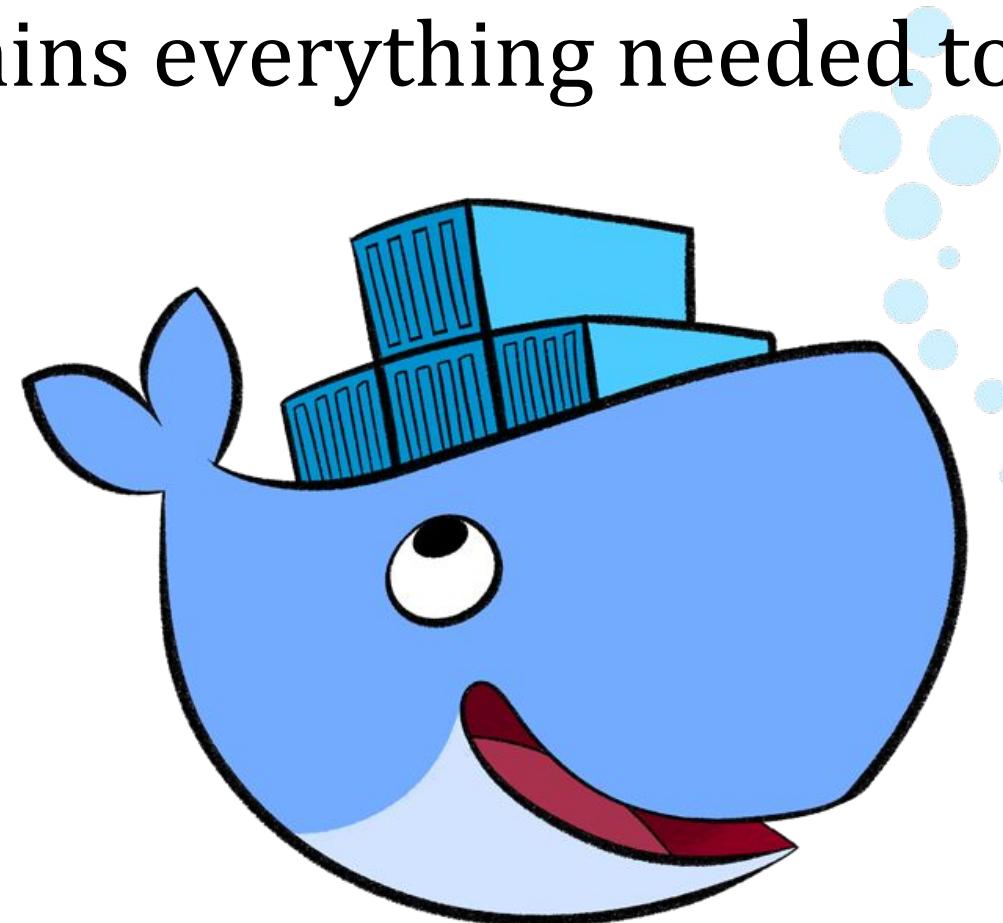
Docker in action



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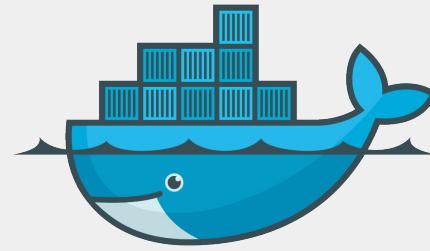
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Docker containers wrap a piece of software in a complete filesystem that contains everything needed to run.

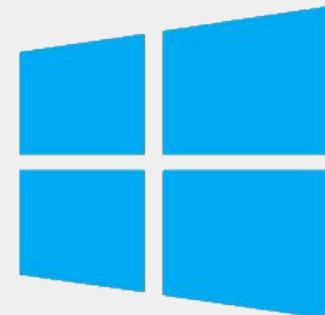


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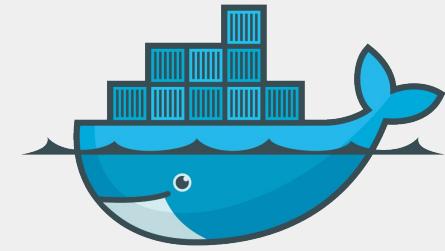
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docker



Windows
Server
2016



docker



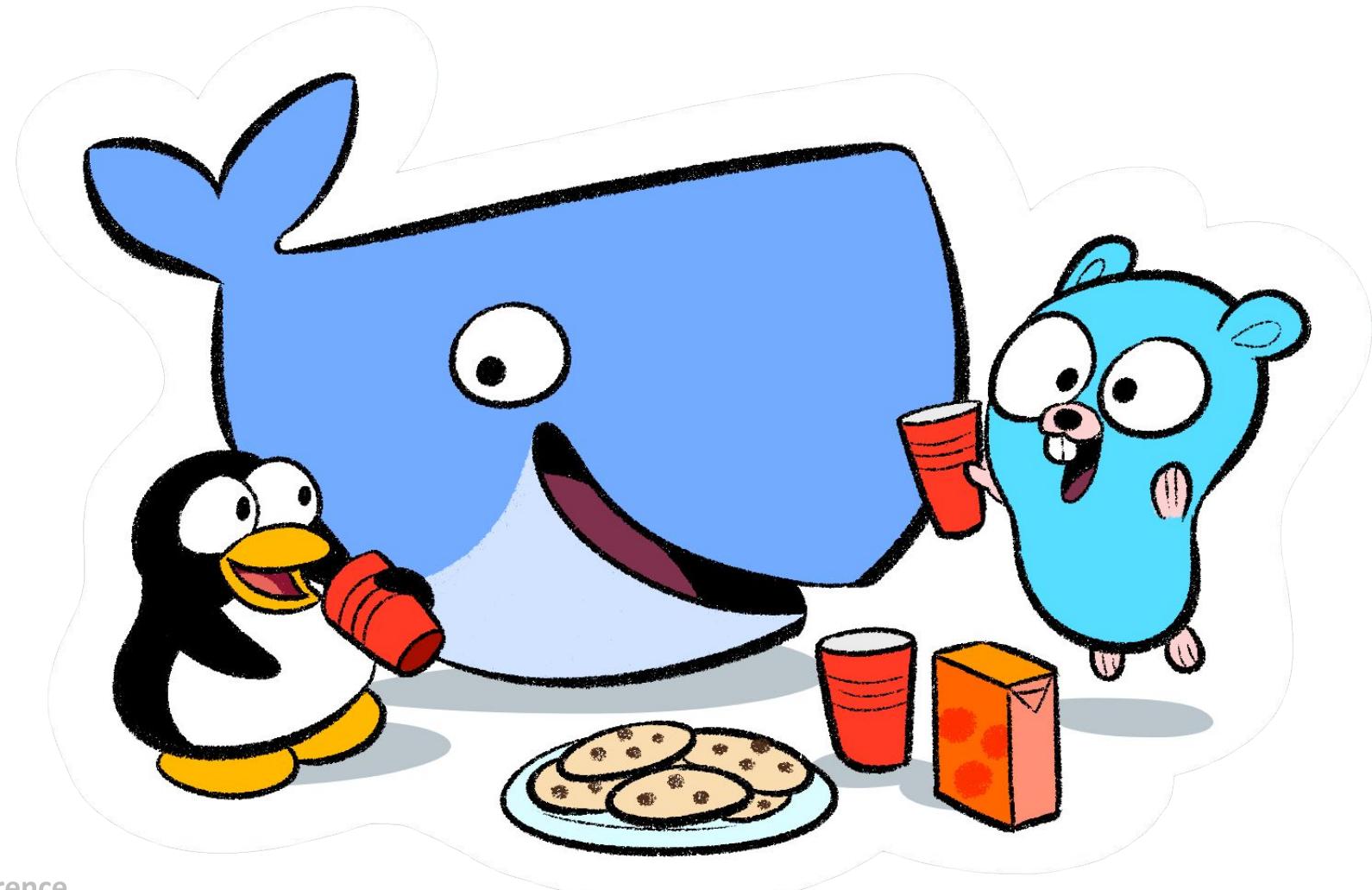
Microsoft
Hyper-V



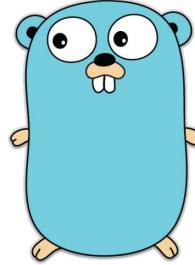
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New Operating Model



Open Source



This repository Search Pull requests Issues Gist



docker / docker Watch 2,920 Star 35,977 Fork 10,583

Code

Issues 1,805

Pull requests 156

Projects 0

Wiki

Pulse

Graphs

Docker - the open-source application container engine <http://www.docker.com>

27,898 commits

4 branches

167 releases

1,525 contributors

Branch: master ▾

New pull request

Create new file

Upload files

Find file

Clone or download ▾



coolljt0725 committed on GitHub Merge pull request #27419 from yongtang/10162016-warning ...

Latest commit 55cd8f5 8 minutes ago



.github

a month ago



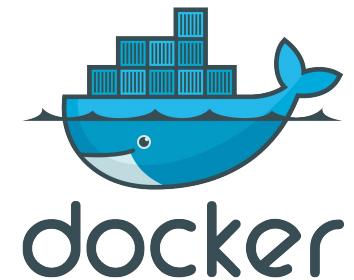
Merge pull request #27365 from morelena/remove_nil_check

4 days ago

Docker CLI or PowerShell

Get-ContainerImage

docker images



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This repository

Search

Pull requests Issues Gist



tesseract-ocr / tesseract

Watch ▾

583

Unstar

6,490

Fork

1,550

Code

Issues 39

Pull requests 16

Projects 0

Wiki

Pulse

Graphs

Tesseract Open Source OCR Engine (main repository)

C++ 90.3%

C 6.7%

Shell 1.0%

Java 0.8%

Makefile 0.5%

CMake 0.4%

Other 0.3%

Branch: master ▾

New pull request

Create new file

Upload files

Find file

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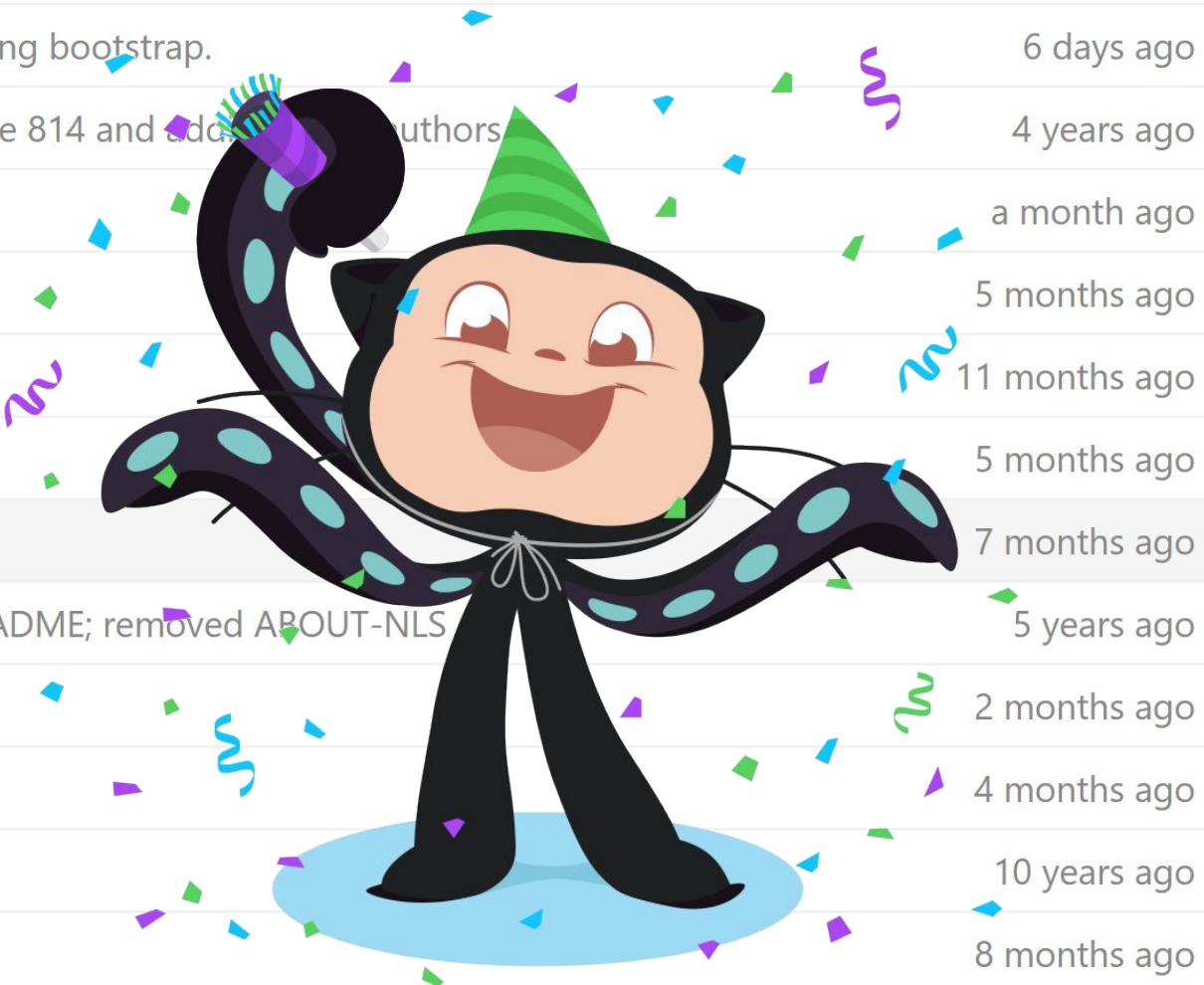
 egorpugin committed on GitHub Update appveyor.yml

Latest commit 37f568d 19 hours ago

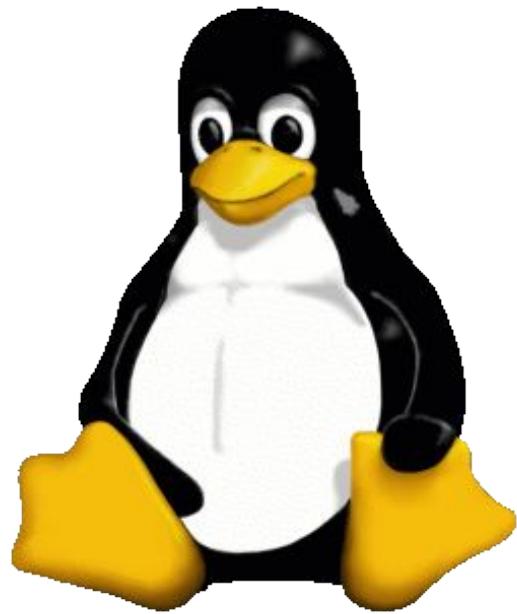
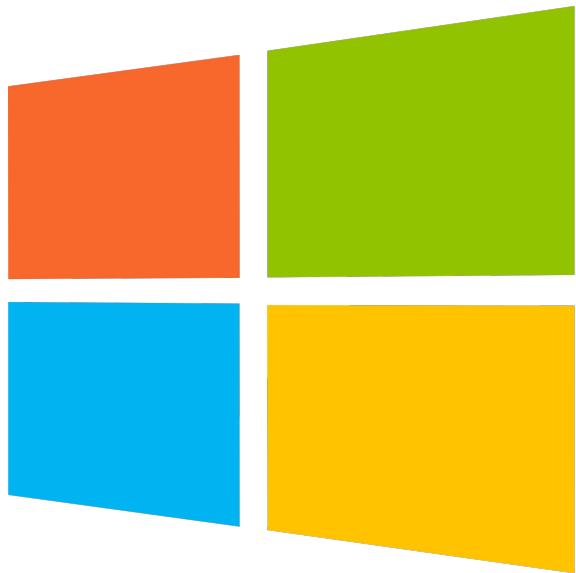
 android	Fixes #74 NO_CUBE_BUILD with reverting to ANDROID_BUILD in baseapi	a year ago
 api	improve multipage tiff processing (jbreiden patch from 2016-03-29)	11 days ago
 ccmain	sets justification for ParagraphInfo; fixes #429	29 days ago
 ccstruct	Fix incompatibility with some C++11 implementations	6 months ago
 ccutil	ccutil: Fix and simplify implementation of variadic macro	2 months ago
 classify	classify: Remove unused constant kMinPCLengthIncrease	a month ago
 cmake	Update Configure.cmake	3 months ago
 contrib	replace vs2008 directory with vs2010 directory (fixes cygwin build)	a year ago



.gitignore	Implement CPPAN support for easy Windows building.	4 months ago
.travis.yml	Turn off macos travis build as it fails during bootstrap.	6 days ago
AUTHORS	Integrated patch to AUTHORS fixing issue 814 and adding authors	4 years ago
CMakeLists.txt	Update CMakeLists.txt	a month ago
CONTRIBUTING.md	CONTRIBUTING.md: Fix a typo	5 months ago
COPYING	Fix grammar in license file	11 months ago
ChangeLog	fix invalid release year for V3.04.01	5 months ago
Dockerfile	Dockerifying using travis build script	7 months ago
INSTALL	install data files; small fix of INSTALL, README; removed ABOUT-NLS	5 years ago
INSTALL.GIT.md	add info OSD data file is need too	2 months ago
Makefile.am	Makefile: Fix phony training target	4 months ago
NEWS	top-skimming import from sf.net	10 years ago
README.md	Update README.md	8 months ago
appveyor.yml	Update appveyor.yml	19 hours ago
autogen.sh	autogen.sh: fix a bashism	a year ago



Linux, Mac and Windows



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Everything from Code

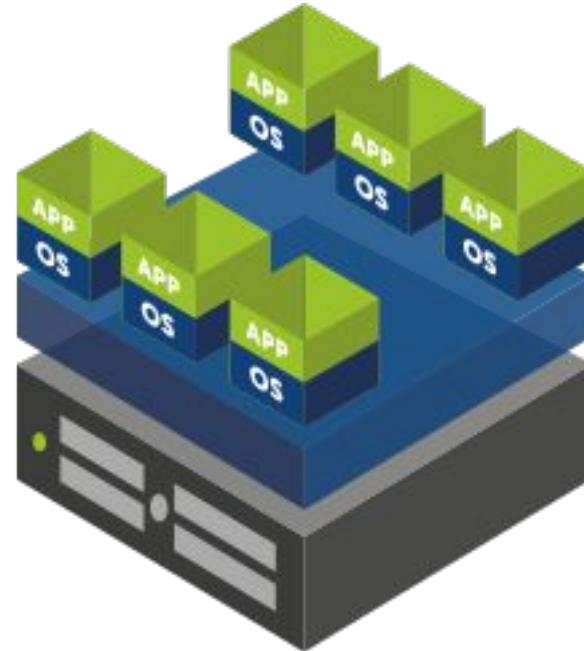
```
1 version: '2'
2
3 services:
4   publish:
5     build: ./pub
6     links:
7       - rabbitmq
8       - db
9     command: 'npm start'
10    expose:
11      - "5672"
12
13 inbound:
14   build: ./inbound
15   ports:
16     - "5000:5000"
17   links:
18     - db
19   environment:
20     - ASPNETCORE_ENVIRONMENT=Production
21
22 db:
23   image: mongo
24   expose:
25     - "27017"
26
27 rabbitmq:
28   image: rabbitmq:3-management
29   expose:
```

16 lines (11 sloc) | 298 Bytes

```
1 # Node.js
2 FROM nodejs
3
4 #give our image a label
5 LABEL Description="BooksIRead" Vendor="bundyfx" Version="1.0.0"
6
7 # make the src folder available in the docker image
8 ADD . /src
9 WORKDIR /src
10
11 # install the dependencies from the package.json file
12 RUN npm.cmd install
13
14 # run it
15 ENTRYPOINT npm.cmd start
```



Physical Server



Virtual Server

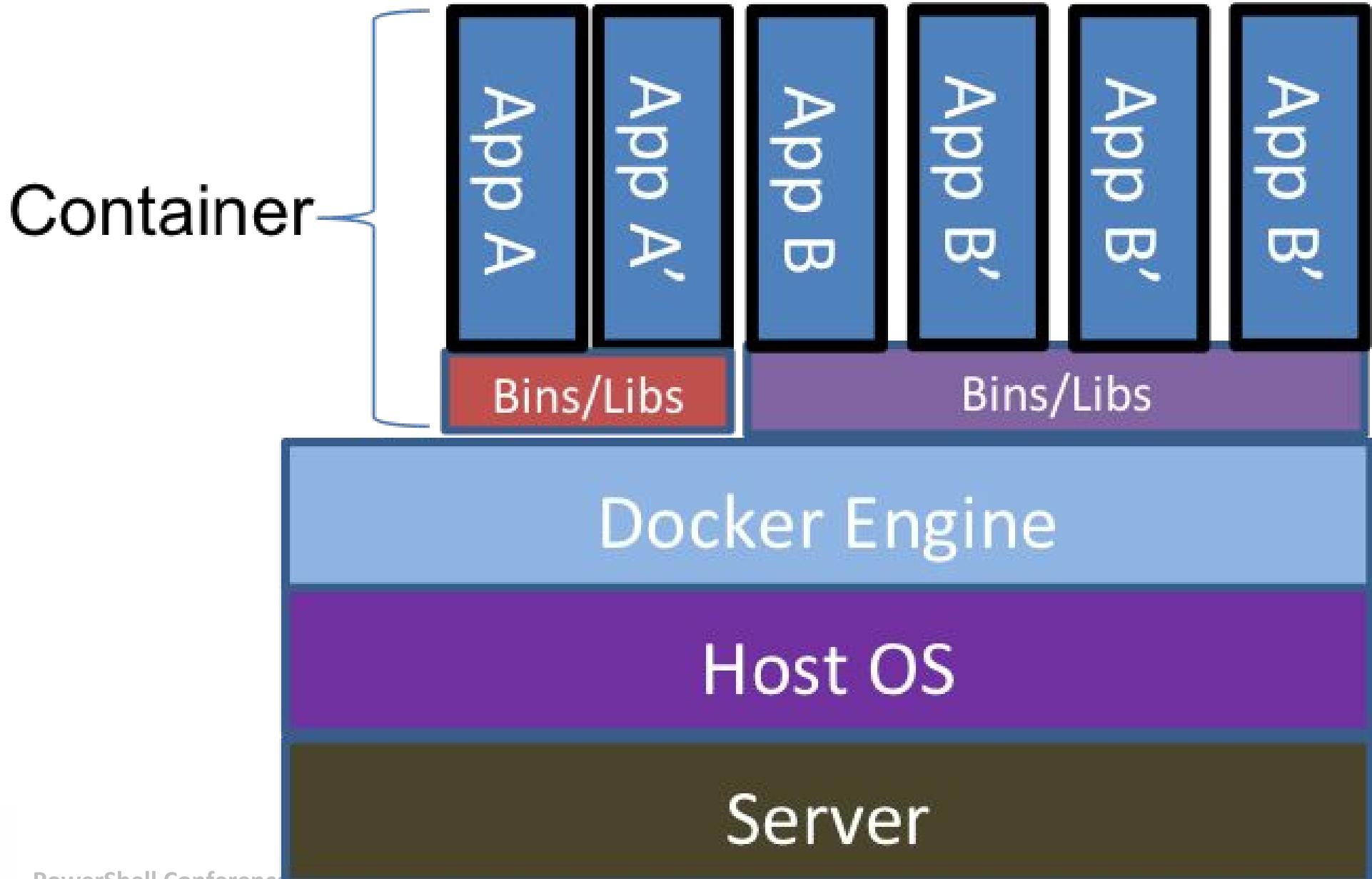


Containers



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Docker Registry:

Docker Registry is an open source application dedicated to the storage and distribution of your Docker images.

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

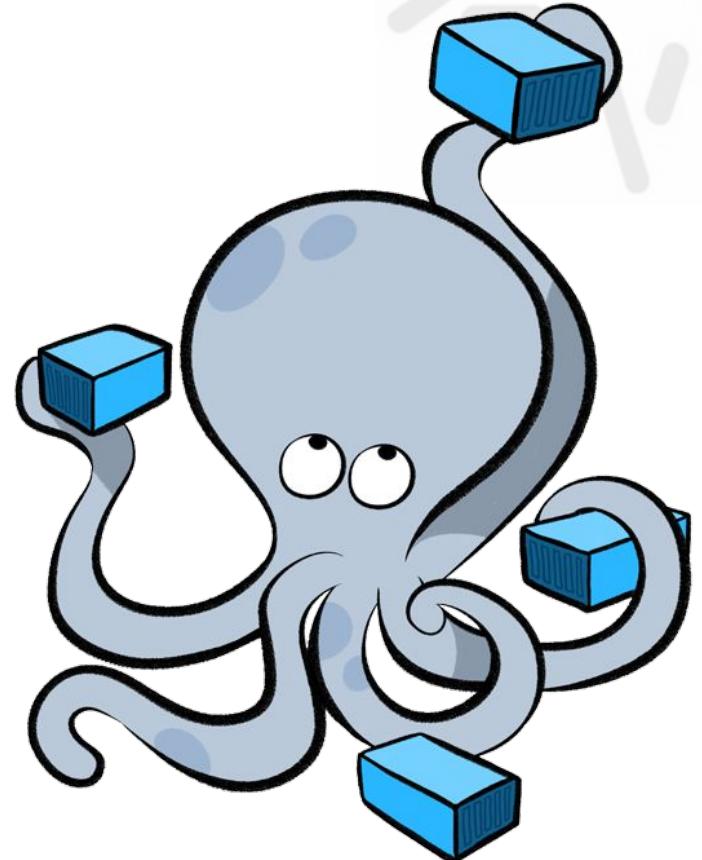


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Docker Compose:

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

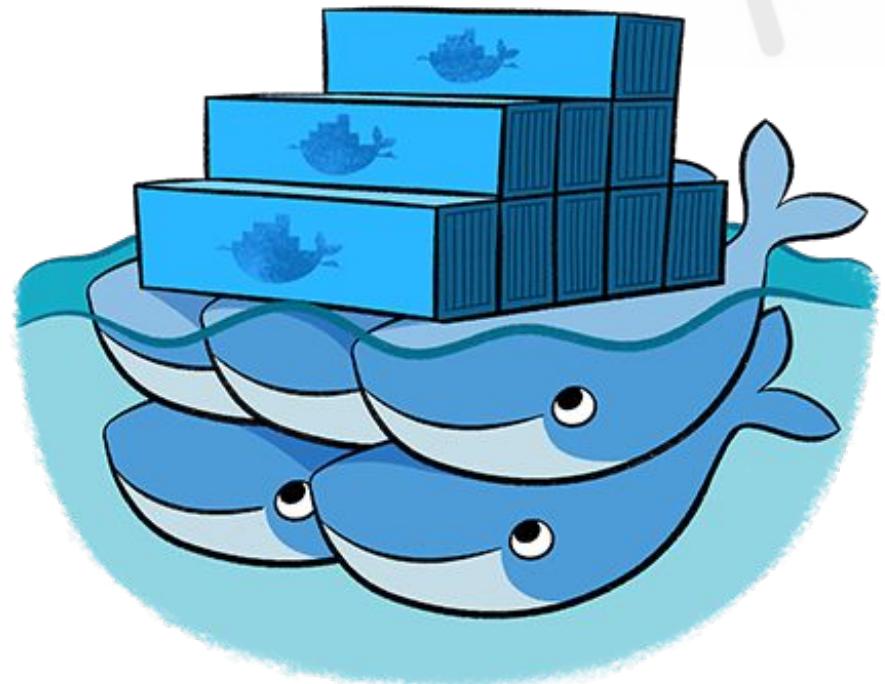


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Docker Swarm:

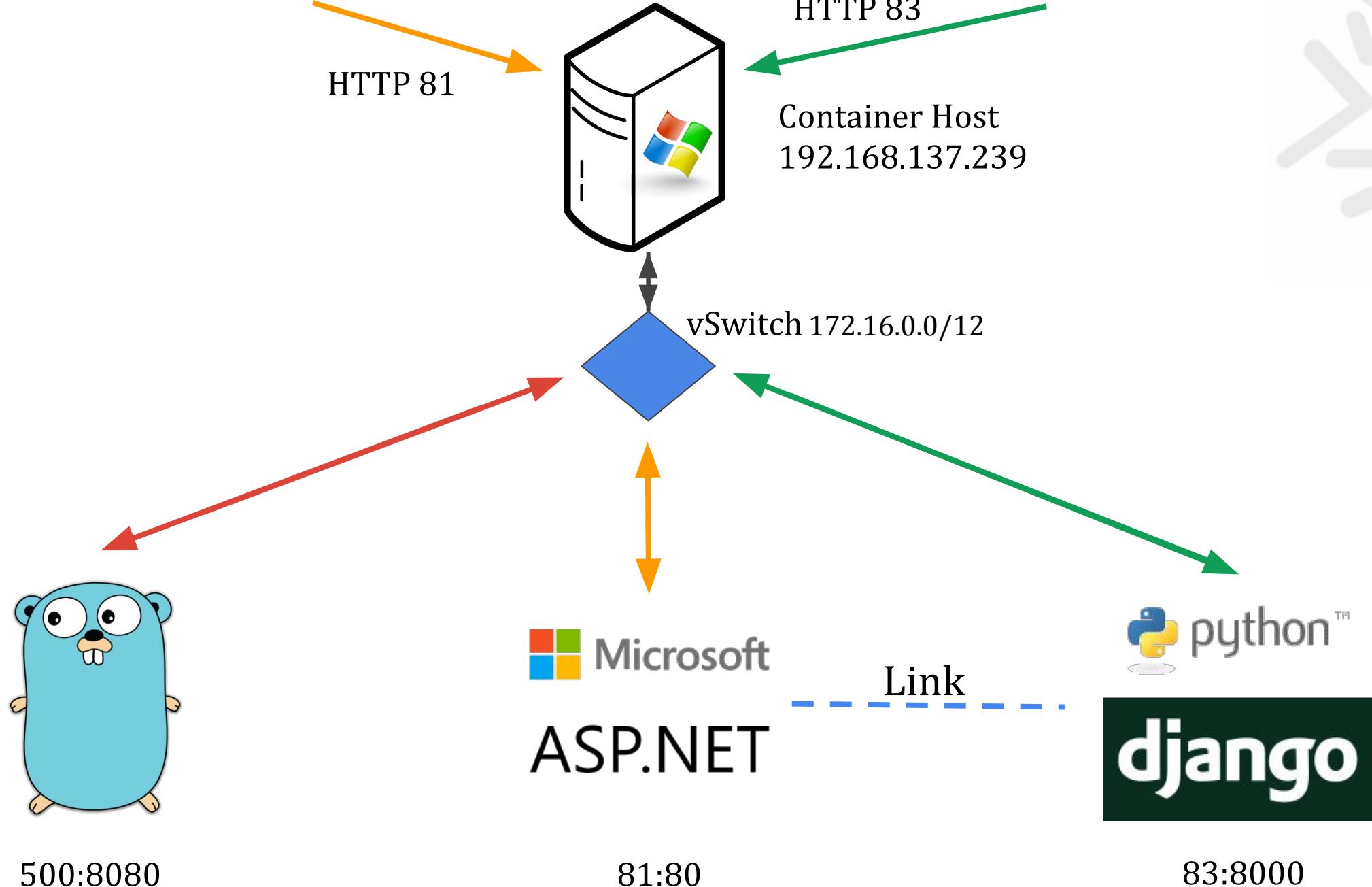
Docker Swarm provides native clustering capabilities to turn a group of Docker engines into a single, virtual Docker Engine

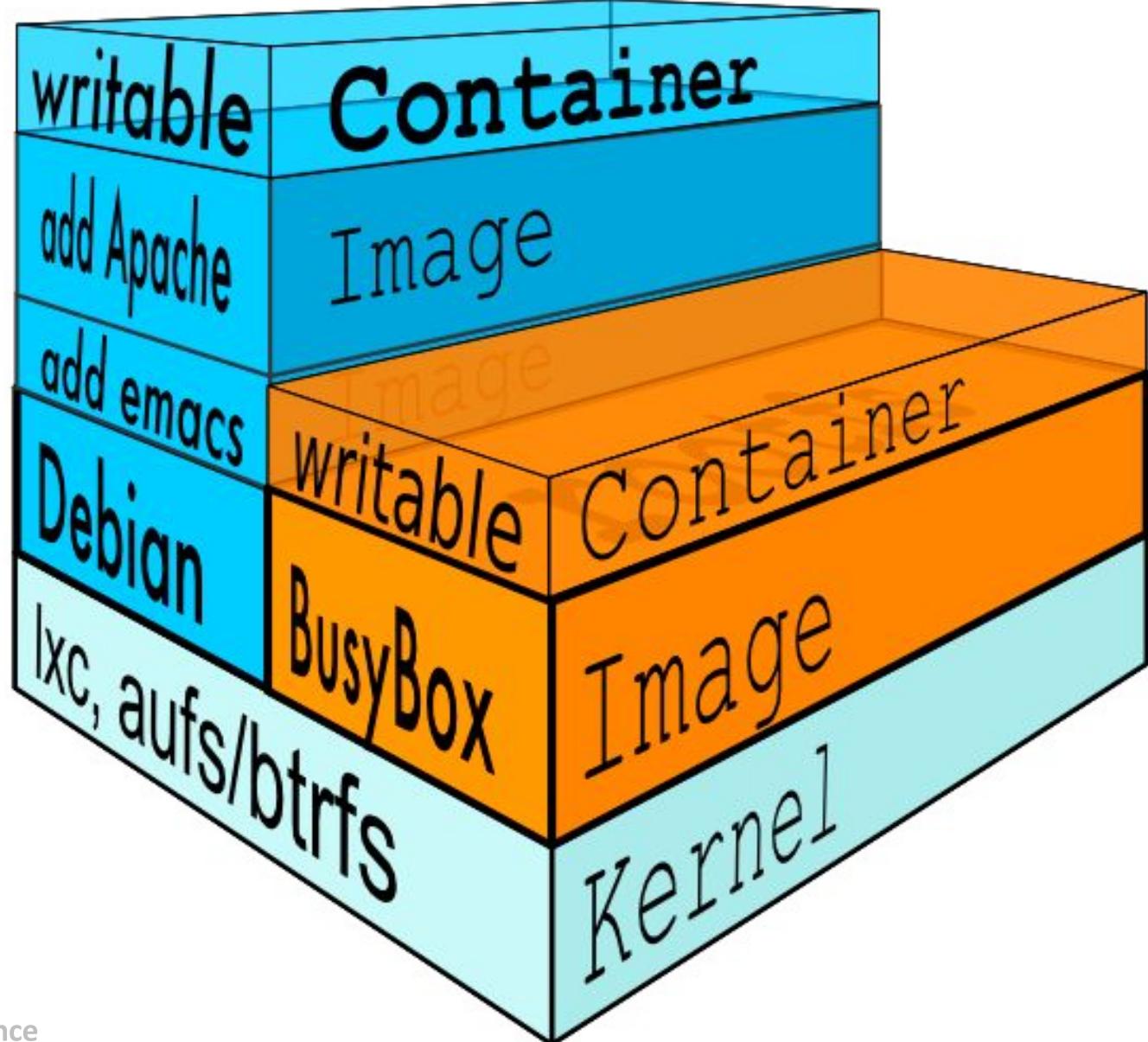


Docker Machine:

Docker Machine is a tool that lets you install Docker Engine on virtual hosts, and manage the hosts with docker-machine commands.

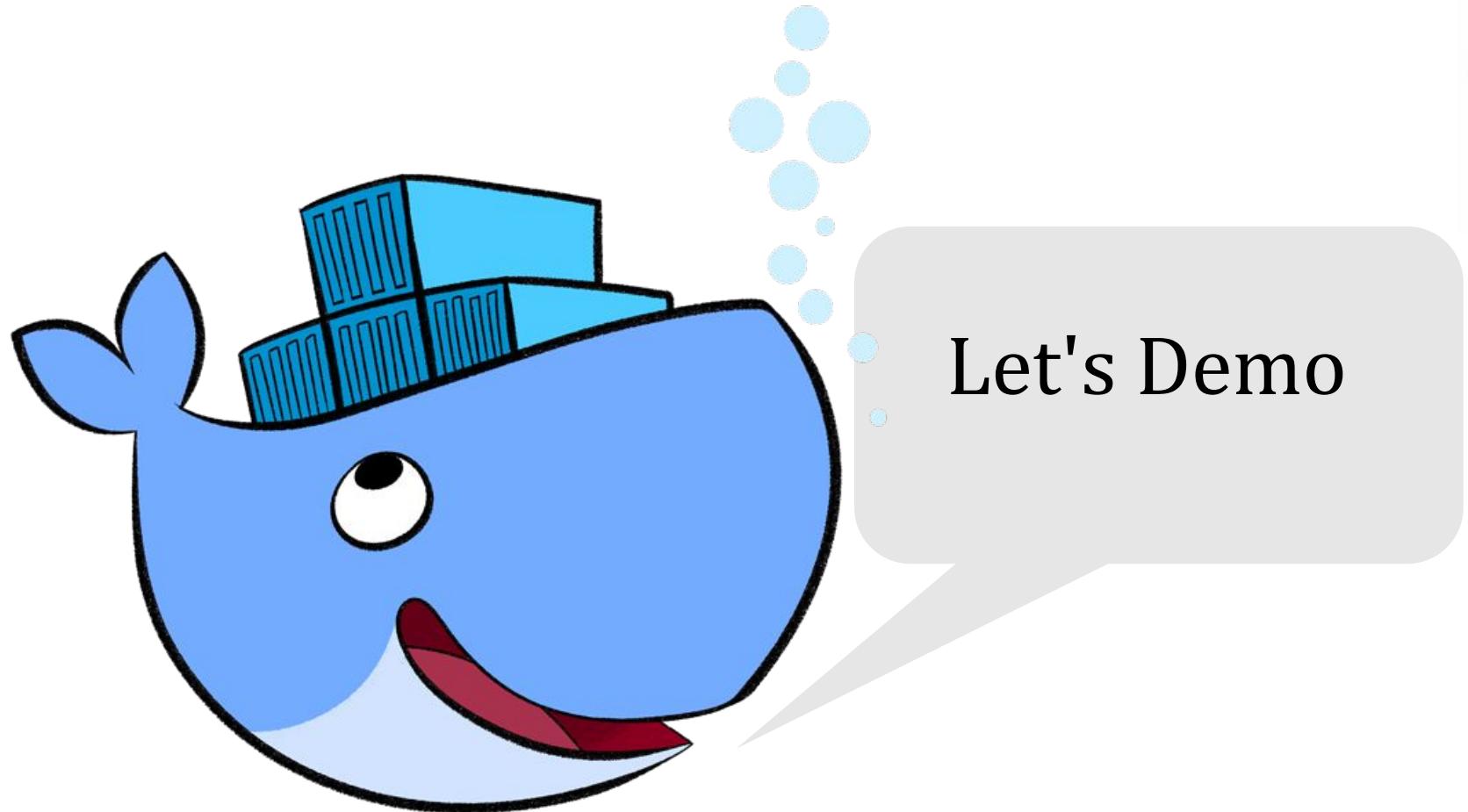






16 lines (11 sloc) | 298 Bytes

```
1 # Node.js
2 FROM nodejs
3
4 #give our image a label
5 LABEL Description="BooksIRead" Vendor="bundyfx" Version="1.0.0"
6
7 # make the src folder available in the docker image
8 ADD . /src
9 WORKDIR /src
10
11 # install the dependencies from the package.json file
12 RUN npm.cmd install
13
14 # run it
15 ENTRYPOINT npm.cmd start
```

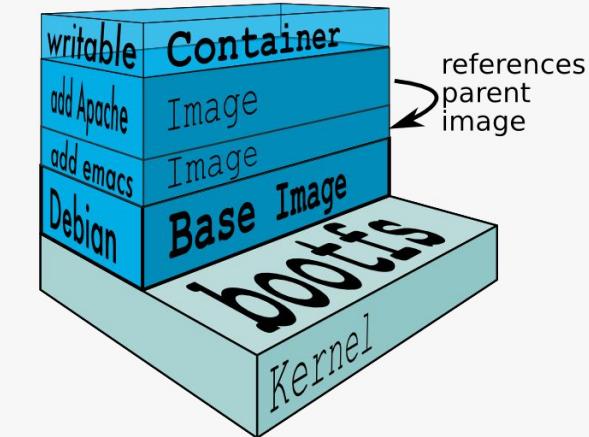


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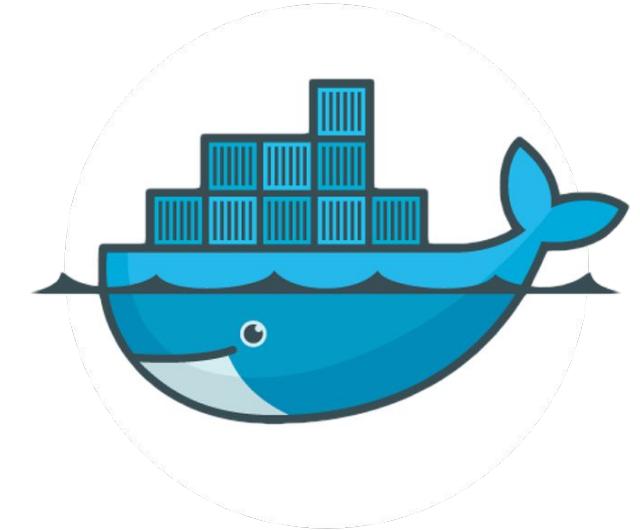
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Clone Repository



Create Image



Run Container



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Questions?

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#PSConfAsia



Docker Ebook:

<https://goto.docker.com/docker-for-the-virtualization-admin.html>

Docker Main Docs:

<https://docs.docker.com/>

Windows Dockerfiles:

<https://github.com/StefanScherer/dockerfiles-windows>

Don't Forget!

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- Grab the Speakers for a chat – they all have time for you!
- Let everyone know what they are missing on Social Media

#PowerShell

#PSConfAsia

Tweets (preferably with Pictures) win Prizes!!!!

Photos of Marina Bay Credit: Sebastian Szumigalski



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SAPIEN



Microsoft

