Cheatography

Docker and friends Cheat Sheet

by Andrew Matthews (aabs) via cheatography.com/22451/cs/4601/

Building Images

`docker build`	Build a new image from the source code at PATH `docker build -t myimg`
`-q`	Suppress the output generated by containers
`--rm`	Remove intermediate containers after a successful build
`-t`	Repository name (and optionally a tag) for the image

Examples:

Simplest possible build instruction:

```
docker build .
```

Name image and tag as v1.5:

```
docker build -t myorg/ myi mg:1. 5 .
```

Misc useful commands

Misc useful commands (cont)

top	Lookup the running processes of a container
wait	Block until a container stops, then print its exit code

Run `docker COMMAND --help` for help on the command.

Running Docker

`docker run`	starts a process with its own file system, its own networking, and its own isolated process tree `docker run -itP image`
`--name`	name the container `docker run --name =so mename o rg`
`-t`	terminal interface
`-i`	interactive session
`-d`	daemon Mode
`-P`	publish all exposed ports
`-p`	expose specific port `-p ip:hos tpo rt: con tai nerp ort`
`--rm`	remove intermediate images
`-v`	bind mount a volume `-v /host: /co ntainer`

Examples:

run an interactive session:

```
sudo docker run -P --name =so me name image
```

run container in background, on port 80:

```
sudo docker run --d -v /etc/a pp d ata :/data -p 0.0.0.0 :8 0:808 0 --rm nginx
```

Docker Compose

TBC

Dockerfiles (for creating images)

Dockerfiles (for creating images) (cont)

`EXPOSE`	listen on the network ports `EXPOSE <po rt> [<p ort`

`ENV`	set the environment variables
	`ENV <ke y> <va lue>`
	`ENV <ke y>= <va lue> <a lue>`

`ADD` / `COPY`??	**copies** new files from `<sr c>` them to the container at `<de` `ADD <sr c>... <de st>`
`ENTRYPOINT`	configure container to run as a executable `ENTRYPOINT ["ex e", "`
`VOLUME`	create externally mounted vol `VOLUME ["/d ata "]`
`USER`	sets the user name or UID to running the image `USER<u ser>`
`WORKDIR`	sets working dir for any `RUN`, `POINT`, `COPY` and `ADD` instruc `WORKDIR /path/ to/ wor`
`ONBUILD`	adds a trigger instruction for e when image is used as base build `ONBUILD [INSTR UCTION]`

Check out the Manual Page for more detail.

attach	Attach to a running container
cp	Copy files/folders from a container's filesystem to the host path
create	Create a new container
exec	Run a command in a running container
images	List images
export	Stream the contents of a container as a tar archive
import	Create a new filesystem image from the contents of a tarball
inspect	Return low-level information on a container or image
kill	Kill a running container
load	Load an image from a tar archive
logs	Fetch the logs of a container
port	Lookup the public-facing port that is NAT-ed to PRIVATE_PORT
ps	List containers
pull	Pull an image or a repository from a Docker registry server
push	Push an image or a repository to a Docker registry server
rm	Remove one or more containers
rmi	Remove one or more images
save	Save an image to a tar archive
search	Search for an image on the Docker Hub
start	Start a stopped container
stop	Stop a running container

`FROM`	set base image for this image `FROM <im age >:< tag>`
`MAINTAINER`	The author of the image `MAINTAINER <na me>`

`RUN`	execute commands in new layer
	`RUN <co mma nd>`
	`RUN ["ex ecu tab le", " par am1 " , ...]`

`CMD`	provide default for an executing container `CMD ["ex ecu tab le", " par am1 " ,...]`
`LABEL`	add metadata to image `LABEL <ke y>= <va lue> <ke y>= <v a lue>`

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