Docker Cheat Sheet

build
run
push
pull

Dockerfile

```
FROM <image>
EXPOSE <port>
ADD <local dir> <container dir>
COPY <source> <destination>
RUN <command>
ARG <name>[=<default value>]
ENV <key>=<value>
WORKDIR <destination>
ENTRYPOINT <command>
CMD <command>
```

Build (and tag) image from Dockerfile in current directory
```
$ docker build -t myimage .
```

Turn off caching (force rebuild of all layers)
```
$ docker build --no-cache -t myimage .
```

Pass a build argument
```
$ docker build --build-arg VAR=value -t myimage .
```

Docker Image

List locally available images
```
$ docker image ls
```

Remove local image
```
$ docker image rm myimage
```

Tag image
```
$ docker tag source_image target_image
```

Tag syntax
`registry/repository:tag`

Example:
`my.private-registry.com/fancy-image:1.0.3`

Run Docker image and attach a terminal
```
$ docker run -it myimage
```

Run Docker image and assign a name to the container
```
$ docker run -it myimage --name my-container
```

Mount a directory from host to container
```
$ docker run -it -v /host:/container myimage
```

Map a port 80 from container to port 8080 on host
```
$ docker run -it -p 8080:80 myimage
```

Run Docker container detached
```
$ docker run -d myimage
```

Immediately delete container when it stops
```
$ docker run --rm myimage
```

Docker Container

Stop a container
```
$ docker stop a34ceff
```

Start a container
```
$ docker start a34ceff
```

Show logs for running container
```
$ docker logs a34ceff
```

Show logs in “follow” mode (tail -f)
```
$ docker logs --follow a34ceff
```

Show last 50 lines of log
```
$ docker logs --tail 50 a34ceff
```

Show running containers
```
$ docker ps
```

Show running, stopped and crashed containers
```
$ docker ps -a
```

Show container details (e.g. mounts…)
```
$ docker inspect a34ceff
```

Start a process inside a **running** container
```
$ docker exec -it a34ceff <command>
```

Most common use case
```
$ docker exec -it a34ceff /bin/sh
```

Dockerhub

Login to Dockerhub
```
$ docker login
```

Login to any (private) Docker registry
```
$ docker login -u user registry.host.com
```

Pull an image from Dockerhub
```
$ docker pull myimage
```

Push an image to Dockerhub
```
$ docker push myimage
```

Volumes

Create a local volume
```
$ docker volume create --name myvol
```

List volumes
```
$ docker volume ls
```

Destroy a volume
```
$ docker volume rm myvol
```

Networks

Create a local volume
```
$ docker volume create --name myvol
```

List volumes
```
$ docker volume ls
```

Destroy a volume
```
$ docker volume rm myvol
```