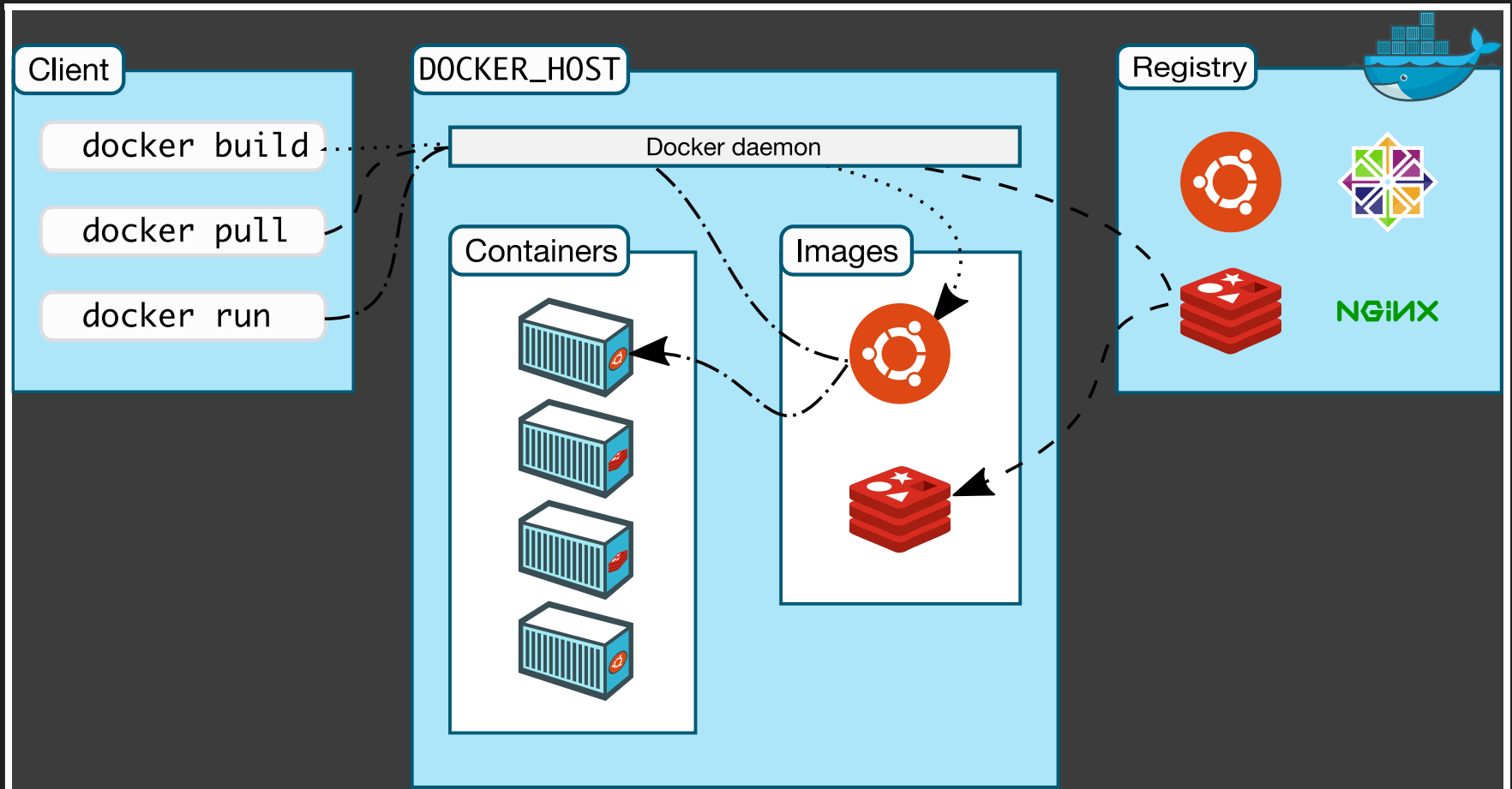


CONTAINED GF

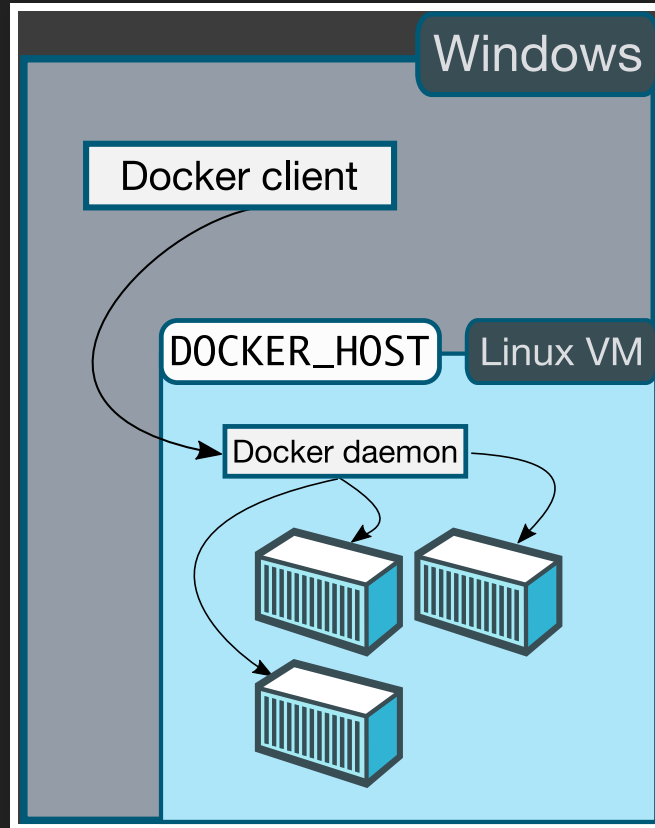
- GF running in a container
- Docker containers

WHAT IS DOCKER?

- Open platform for building, shipping and running distributed applications
- Separate applications from infrastructure
- Based on lxc Linux containers
- In Windows and OS X it uses a Linux Virtual Machine.



WINDOWS/MAC OSX MACHINE



INSIDE DOCKER

- Docker images.
 - are build
 - and pulled from:
- Docker registries.
- Docker containers.
 - from an image
 - run, start, stop, moved, delete, export

WHEN RUNNING A CONTAINER:

1. pulls an image (if needed)
2. Creates a new container
3. Allocates a filesystem
 - With a `rw` layer on top
4. Sets an IP address
5. Runs your process
6. Connects `stdin/stdout/stderr` for you

BUILDING IMAGES

1. `docker pull`
2. Install new software / Make changes
3. `docker commit`

ANOTHER (MORE REPEATABLE) WAY:

- Use a Dockerfile
- `docker build .`

FROM HASKELL TO DARCS

```
FROM haskell  
RUN apt-get update  
RUN apt-get install -y libncurses5-dev libcurl4-openssl-dev  
RUN cabal install darcs
```

FROM DARCS TO GF

```
RUN darcs get --lazy http://www.grammaticalframework.org/ GF
WORKDIR GF
ENV LANG C.UTF-8
RUN cabal install happy alex
WORKDIR src/runtime/c
RUN apt-get install -y autoconf libtool
RUN autoreconf -i
RUN ./configure
RUN make
RUN make install
WORKDIR ../../..
RUN cabal install 'network < 2.6'
RUN cabal install cgi fst haskeline httpd-shed json
RUN cabal install lifted-base parallel utf8-string time-compat
ENV LD_LIBRARY_PATH /lib:/usr/lib:/usr/local/lib
RUN cabal configure -fserver -fc-runtime && cabal build
```