NJIT

Systems Administration with Containers

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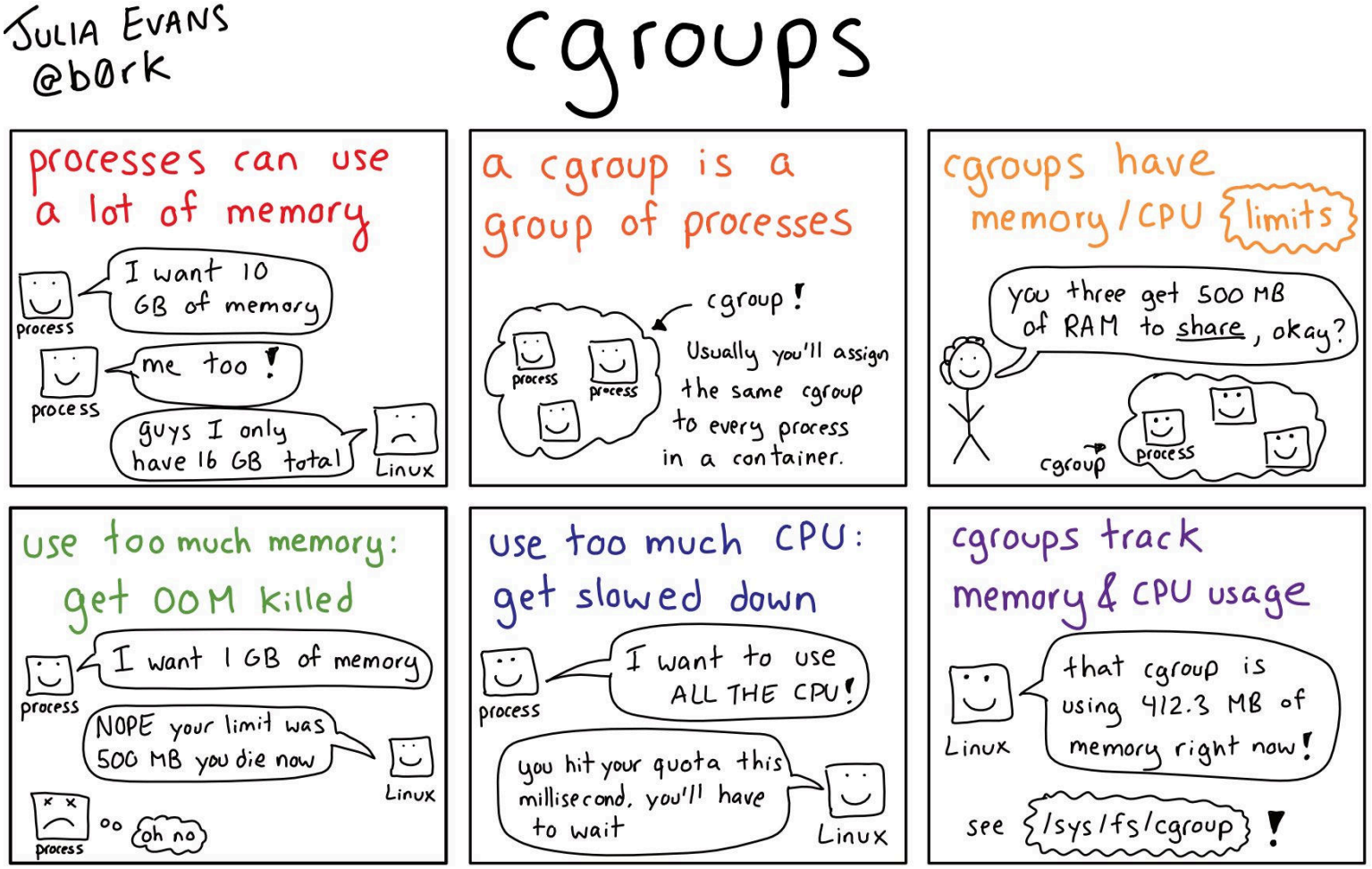
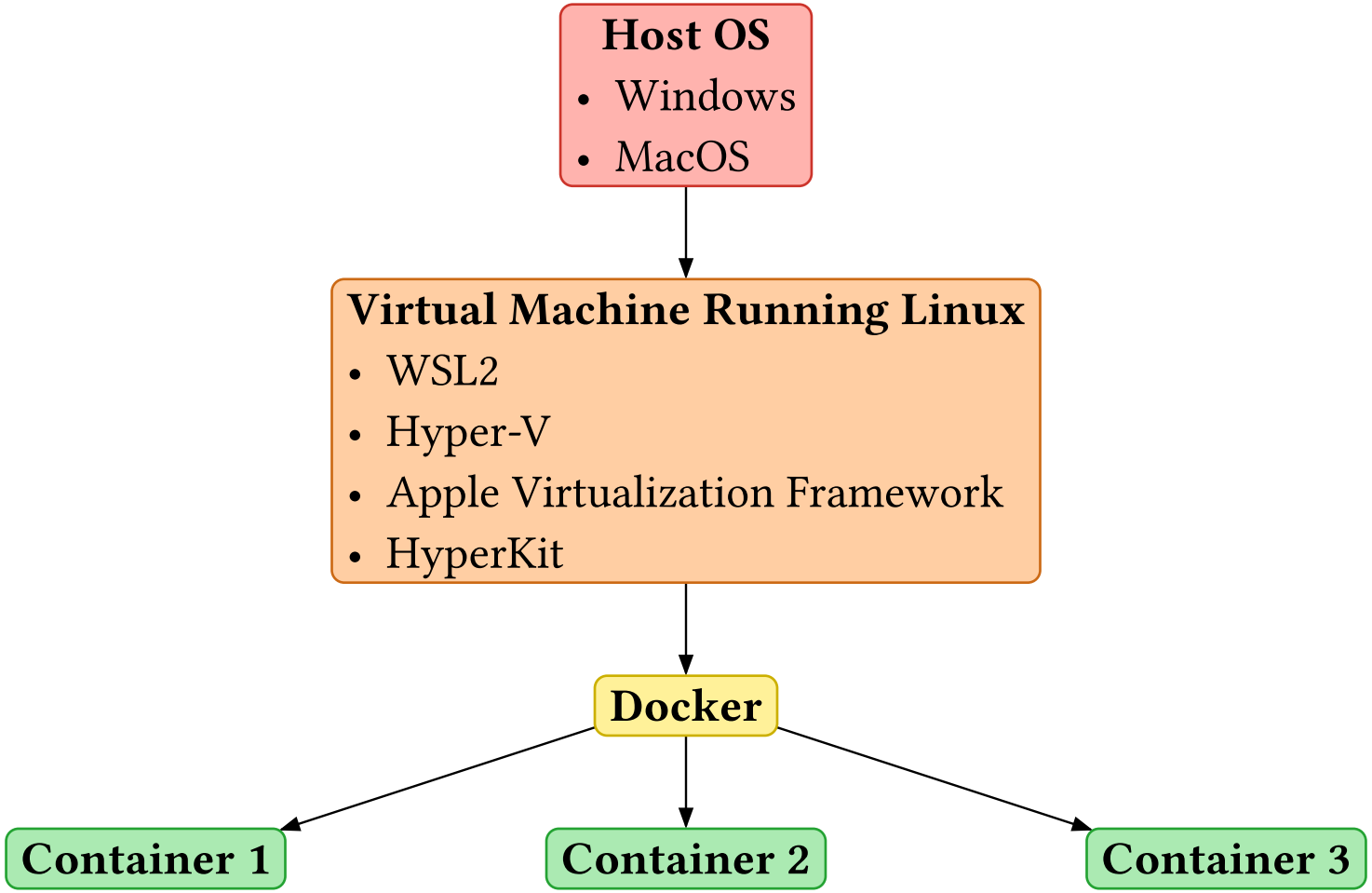
What is a container?

- fully contained Linux system that configured exactly how the dev / ops team wants it to be
- uses chroot / cgoups for isolation
- allows multiple independant Linux environments to run on one host
- more lightweight than virtual machines (VMs)
- typically coordinated through a daemon process (docker for example)

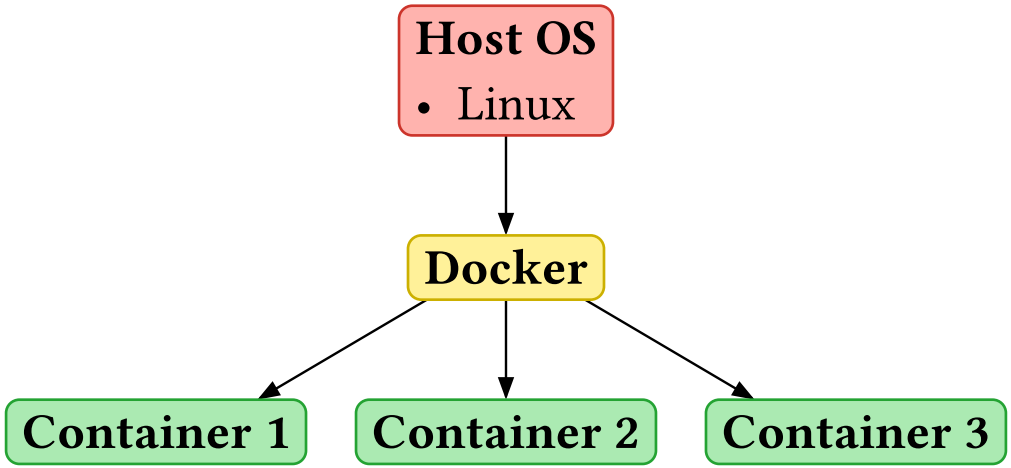
cgroups?



Docker on a Non-Linux Machine



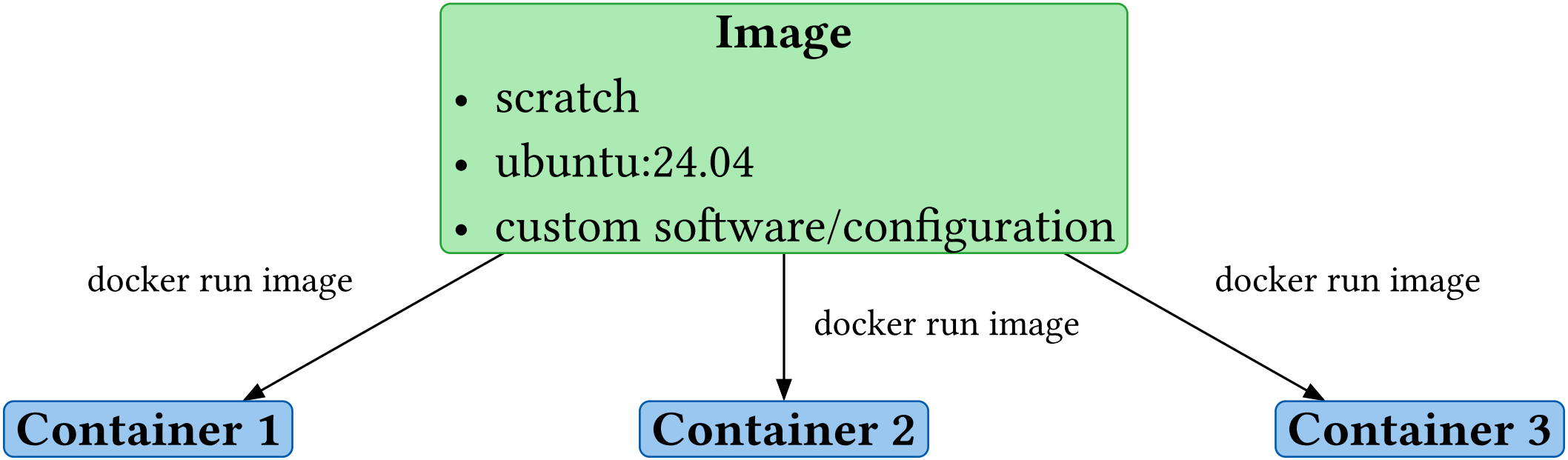
Docker on a Linux Machine



Precious vs. Expendable

- containers have a brief lifecycle, they are expendable
- the configuration information for an image matters (Dockerfile)
- the actual information inside the running container does not
- store your *data* somewhere that isn't inside a container, it's precious

Containers vs. Images



Wrap it Up!

Short mummy is in the public domain

- traditional Linux systems administration still matters
- focus on *how* you set up something more than maintaining a set up you made earlier
- you should be able to make a script that deploys servers on demand
- everything is code