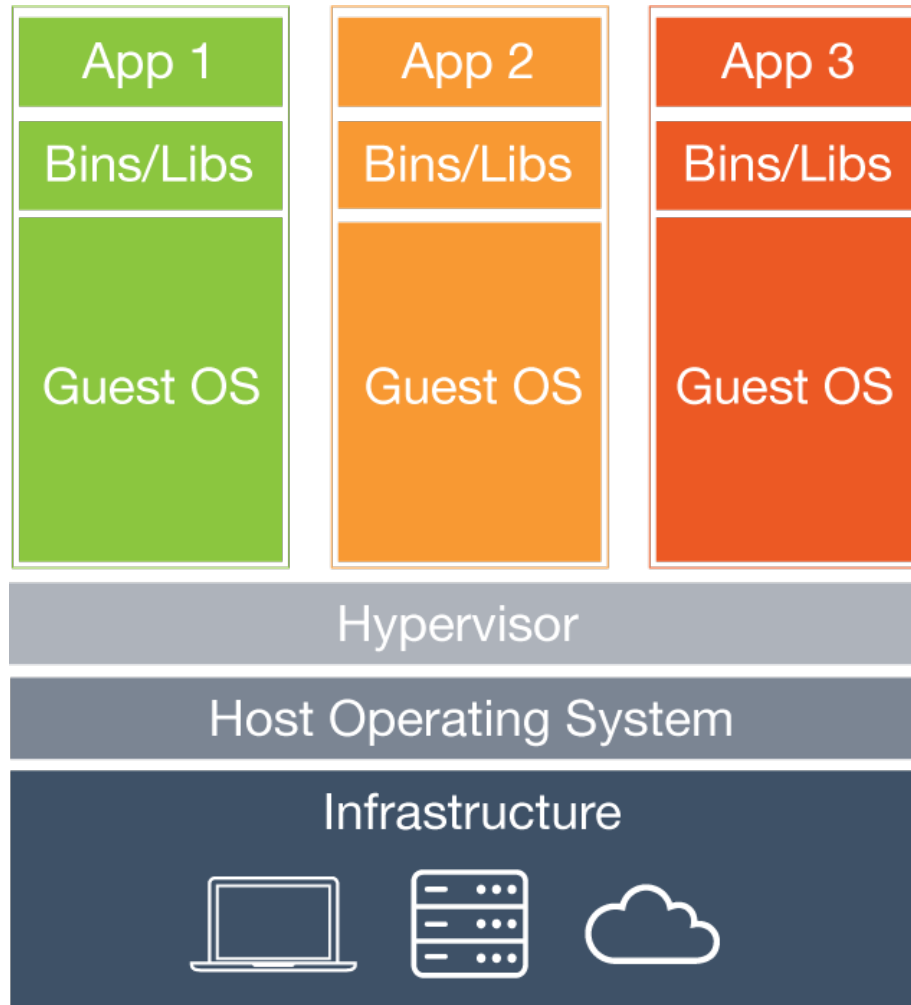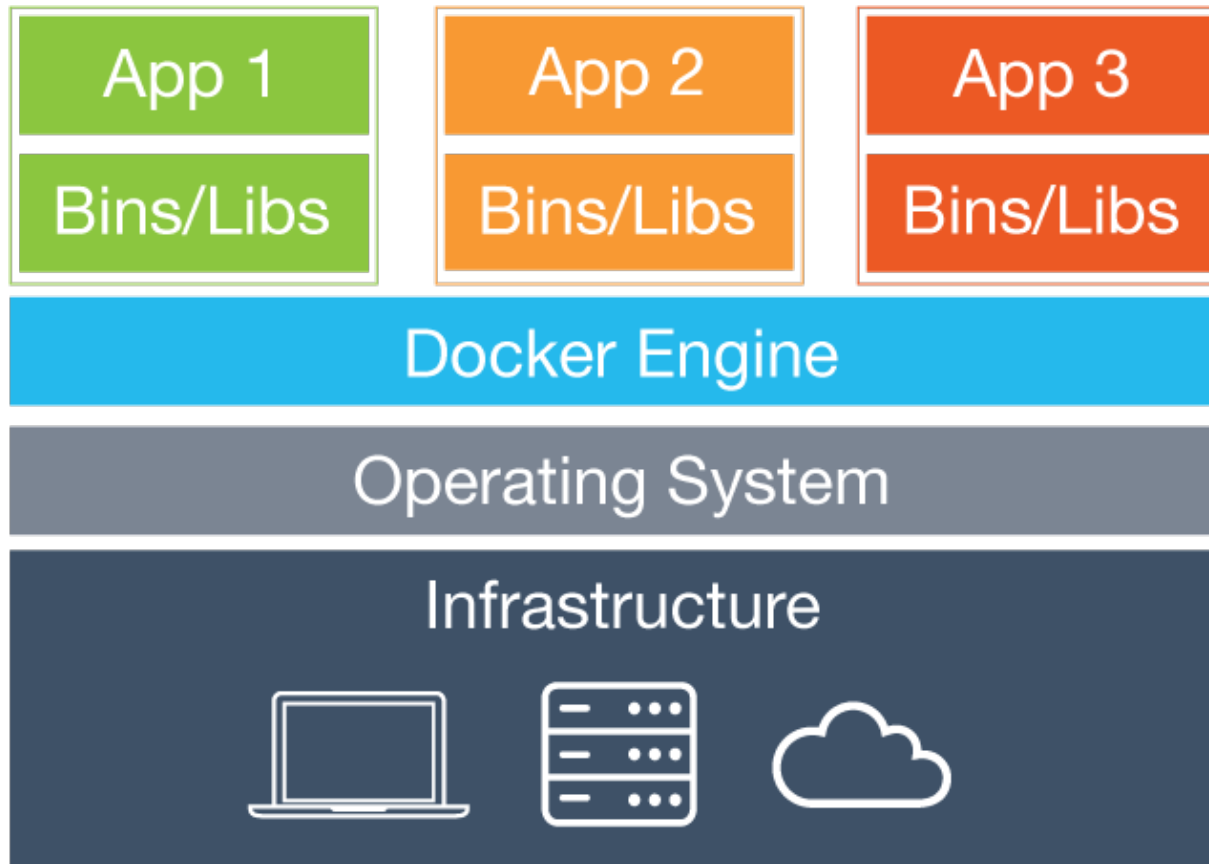# docker

What is it?

"An open platform for developers and sysadmins to build, ship, and run distributed applications."

VM model

Docker model

Advantages

- Licensing
- Rapid application deployment
- Portability
- Version control
- Lightweight
- ...

images vs containers

Docker engine

https://docs.docker.com/docker/installation/mac/

docker run

```
docker run -it ubuntu
```

docker logs

```
docker logs -f bd13
```

docker attach vs docker exec

```
docker attach [containerid]
docker exec -it [containerid] /bin/bash
```

docker history

```
docker history [containerid]
```

docker ps

```
docker ps
```

docker pull/push

```
docker pull ubuntu
docker push myregistry/myimage
```

docker
stop/pause/unpause/start/kill

```
# Ex:
docker stop [containerid]
```

docker rm{,i}

Dockerfiles

```
FROM debian:stable
RUN apt-get update && apt-get install -y --force-yes apache2
EXPOSE 80 443
VOLUME ["/var/www", "/var/log/apache2", "/etc/apache2"]
ENTRYPOINT ["/usr/sbin/apache2ctl", "-D", "FOREGROUND"]
```

Shopa examples!

docker-compose

```
db:
  image: postgres
  ports:
    - "5432"
web:
  build: .
  command: bundle exec rails s -p 3000 -b '0.0.0.0'
  volumes:
    - .:/myapp
  ports:
    - "3000:3000"
  links:
    - db
```

Moarrr shopa examples

Docker hub

"Browse, Search, Push, Pull Repositories"

docker login/logout

Just needed first time

docker machine

> *"Machine lets you create Docker hosts on your computer, on cloud providers, and inside your own data center."*

docker swarm

"A Docker-native clustering system"

Extras

- Kubernetes
- Mesosphere
- ...