

Docker + Arm

Building multi-arch apps with `buildx`

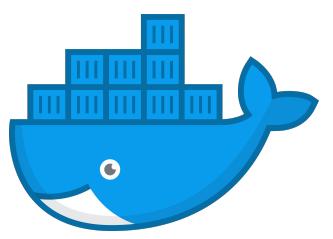
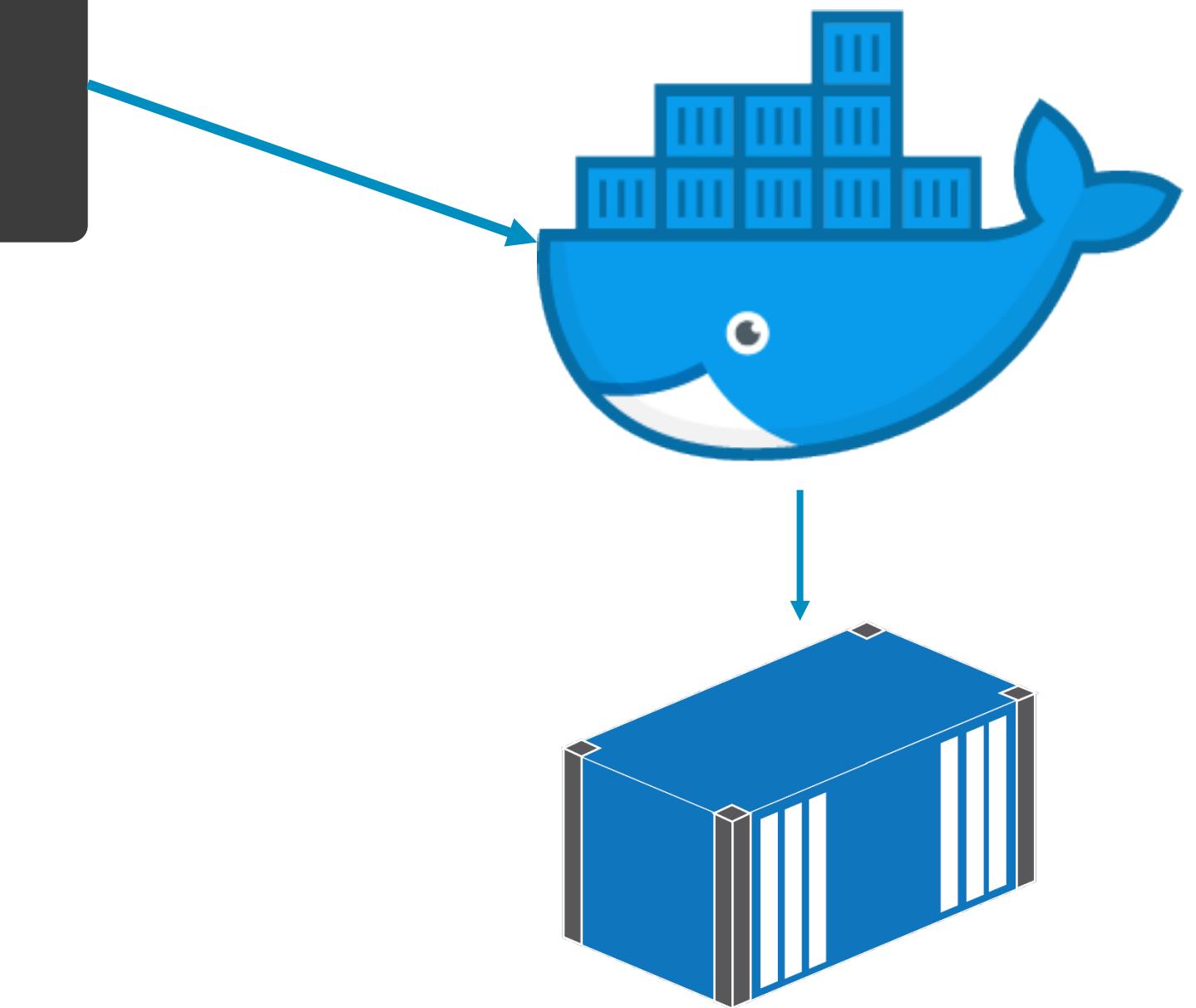
@EltonStoneman | elton@docker.com



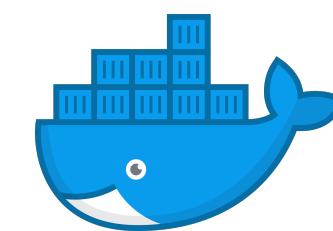
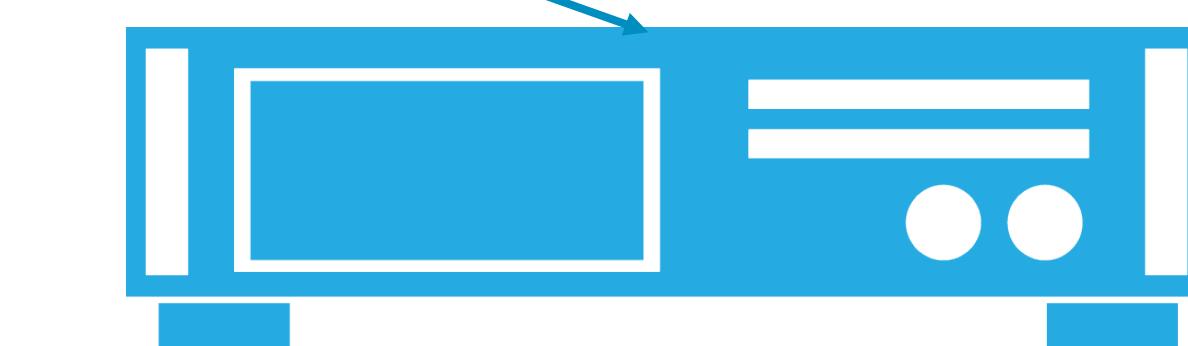
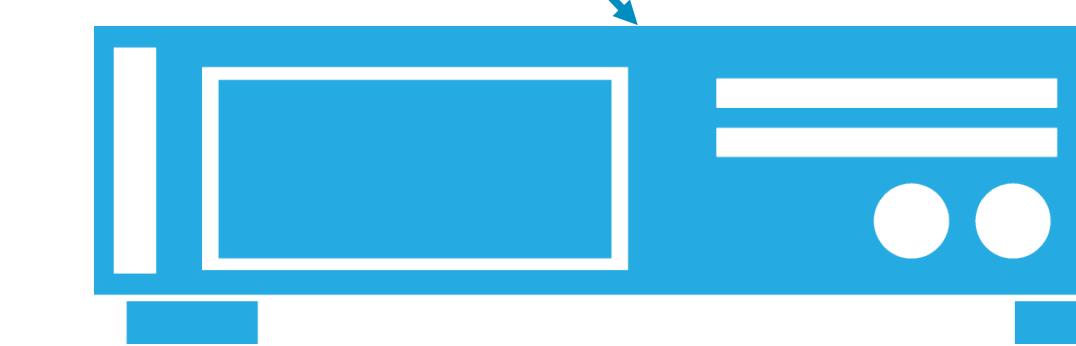
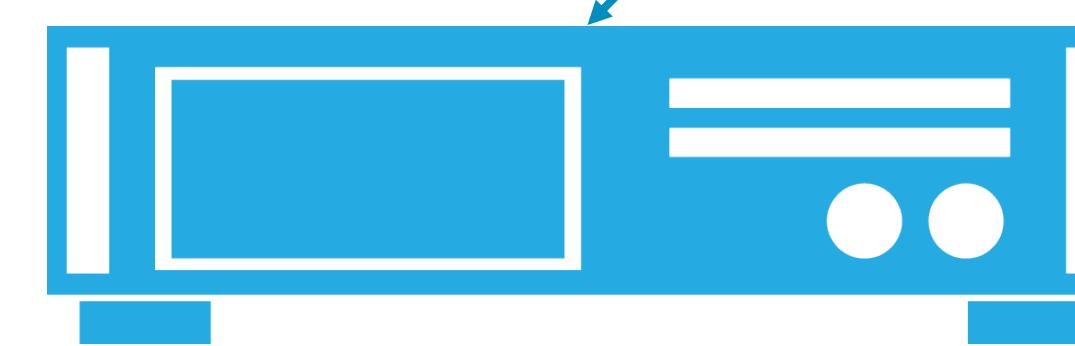
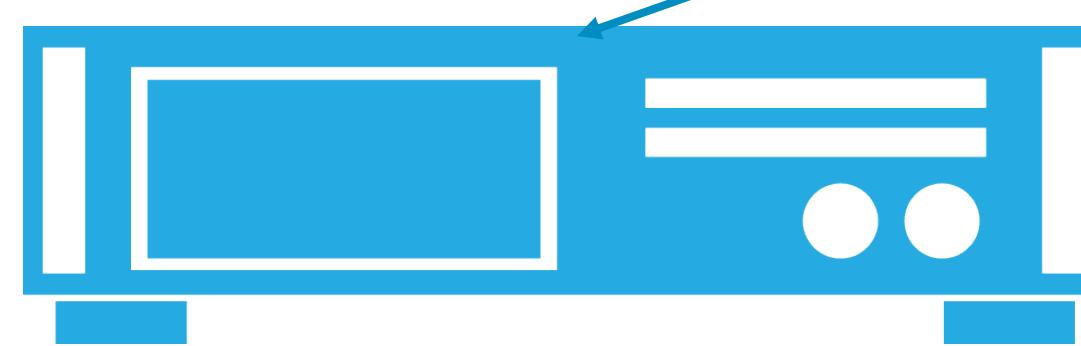
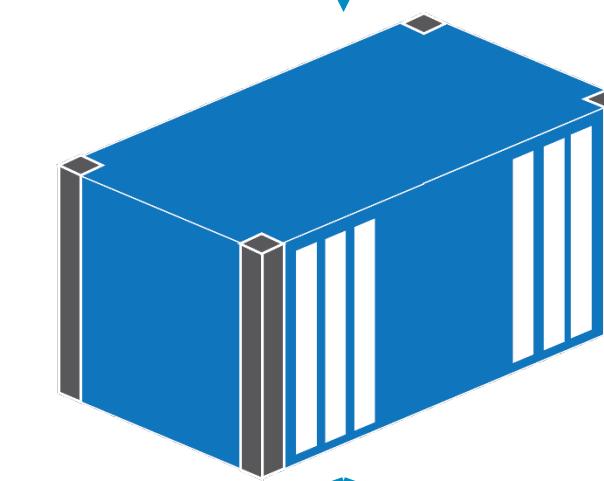
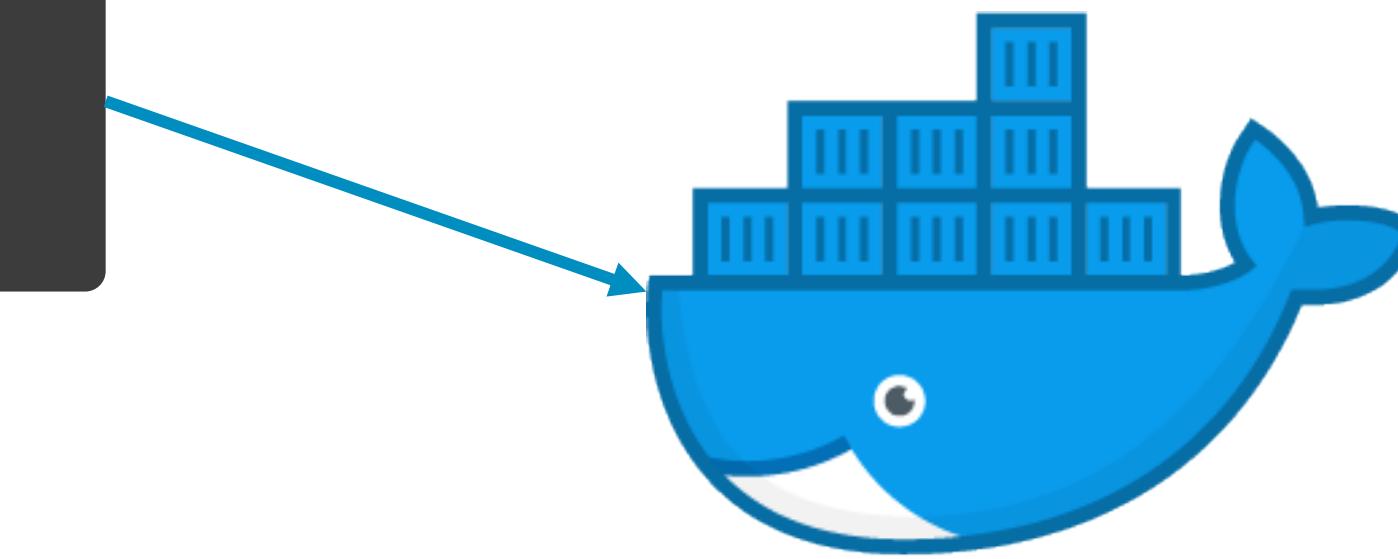
- Understanding multi-arch images
- Multi-arch the old way
- Multi-arch with `buildx`



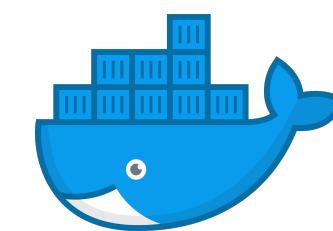
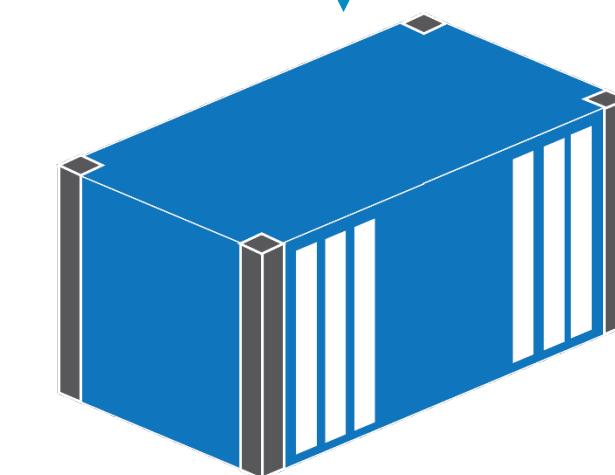
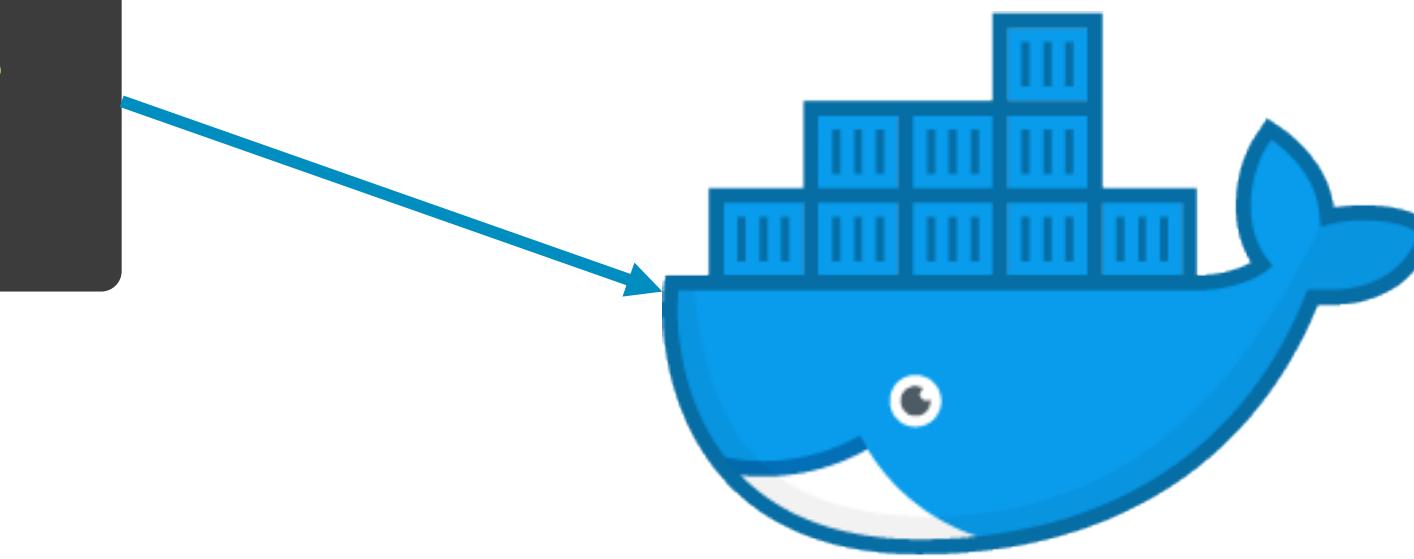
```
> docker container run...
```



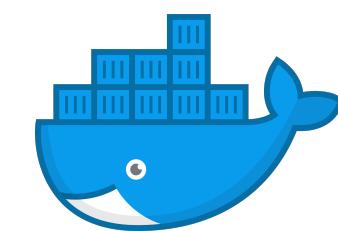
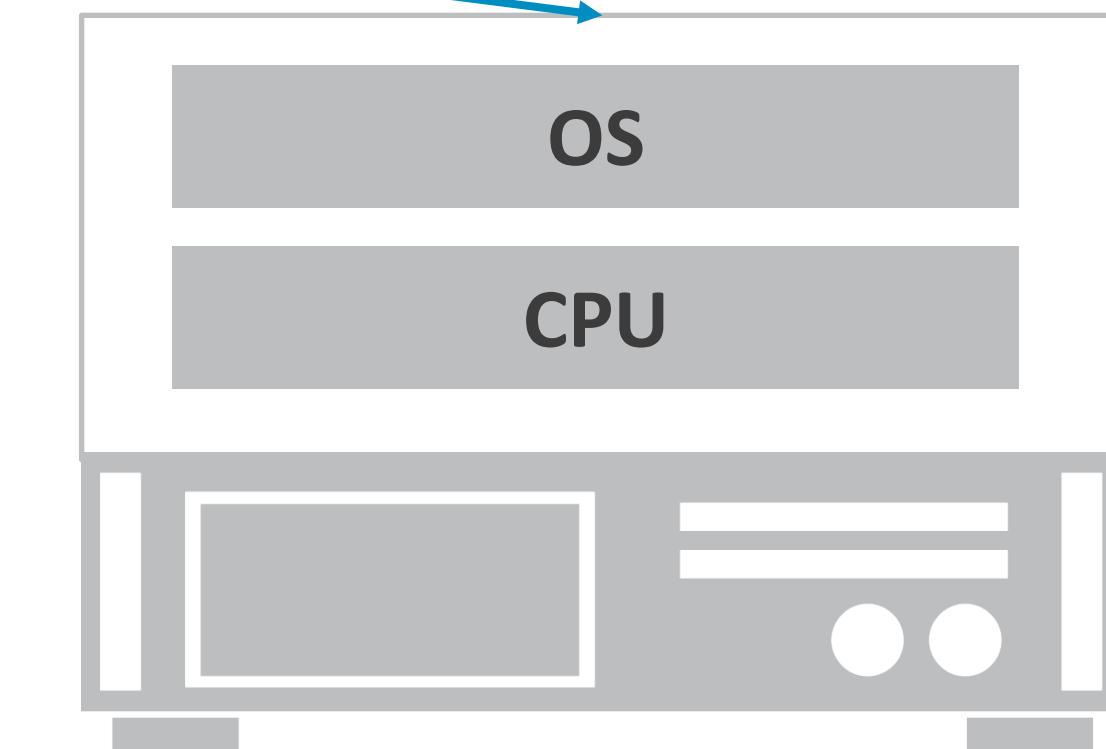
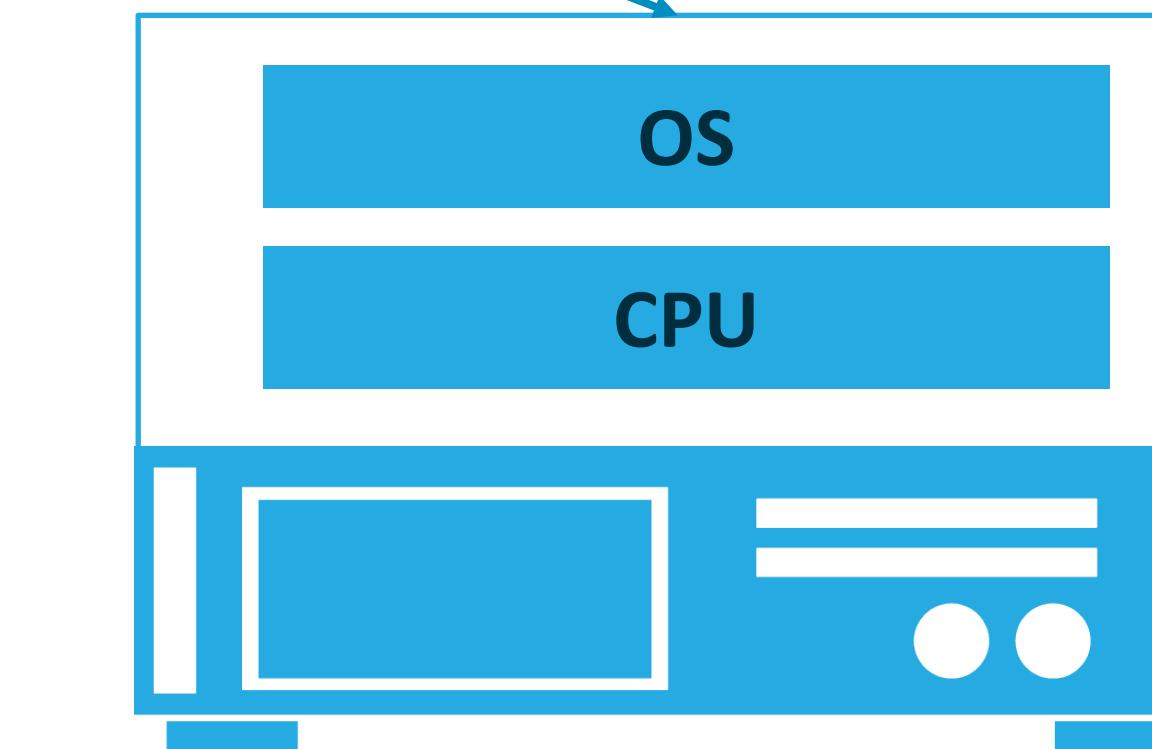
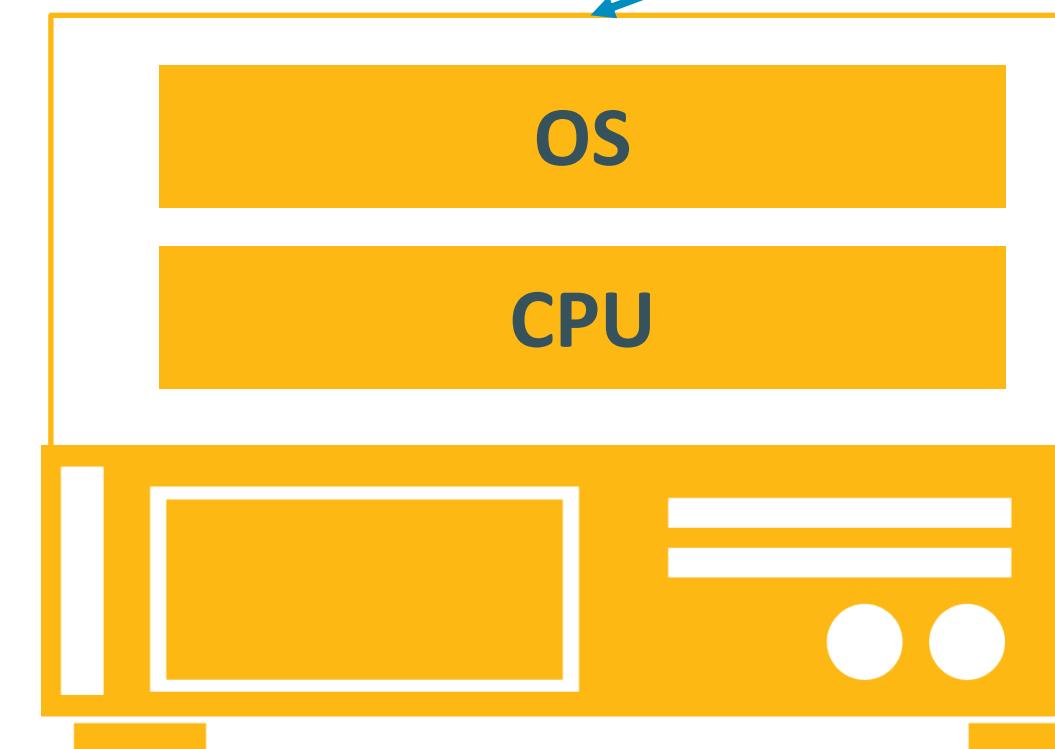
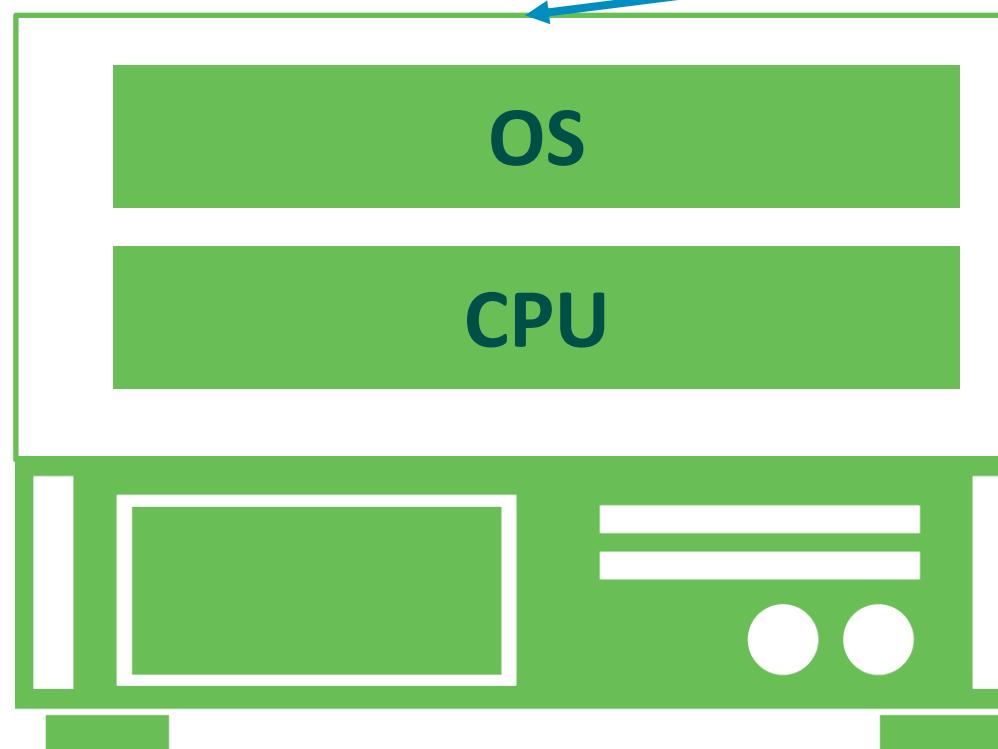
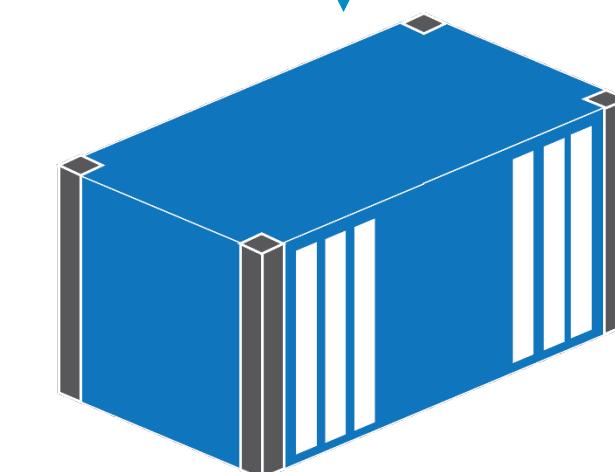
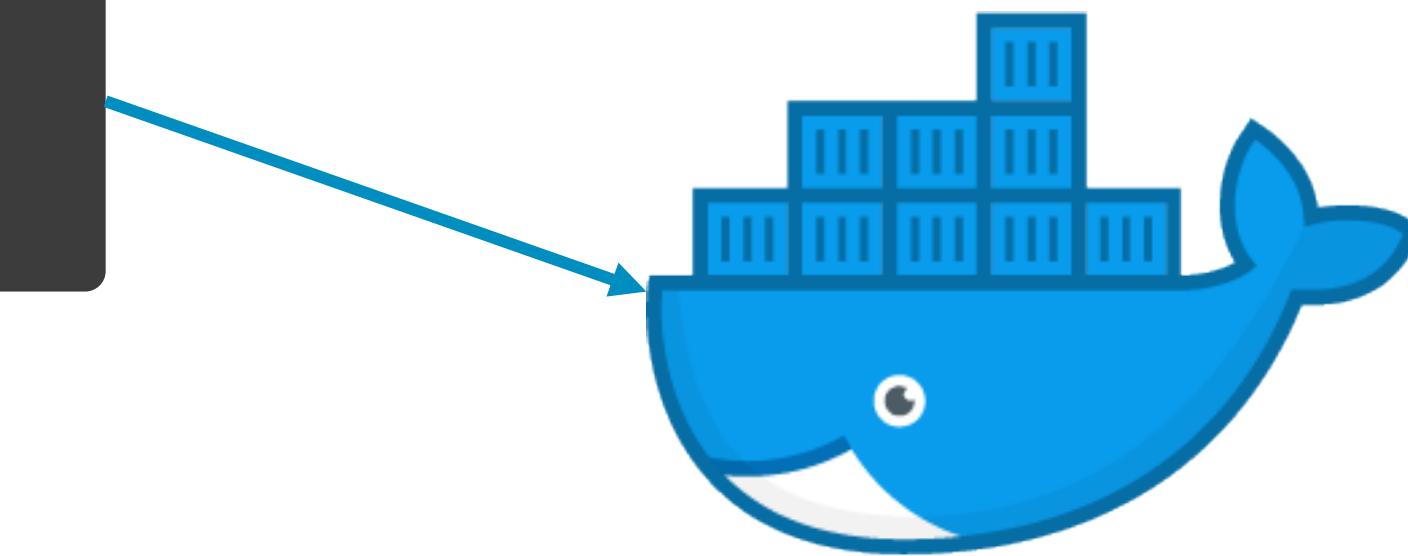
```
> docker container run...
```



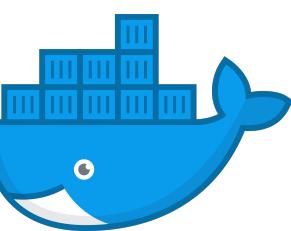
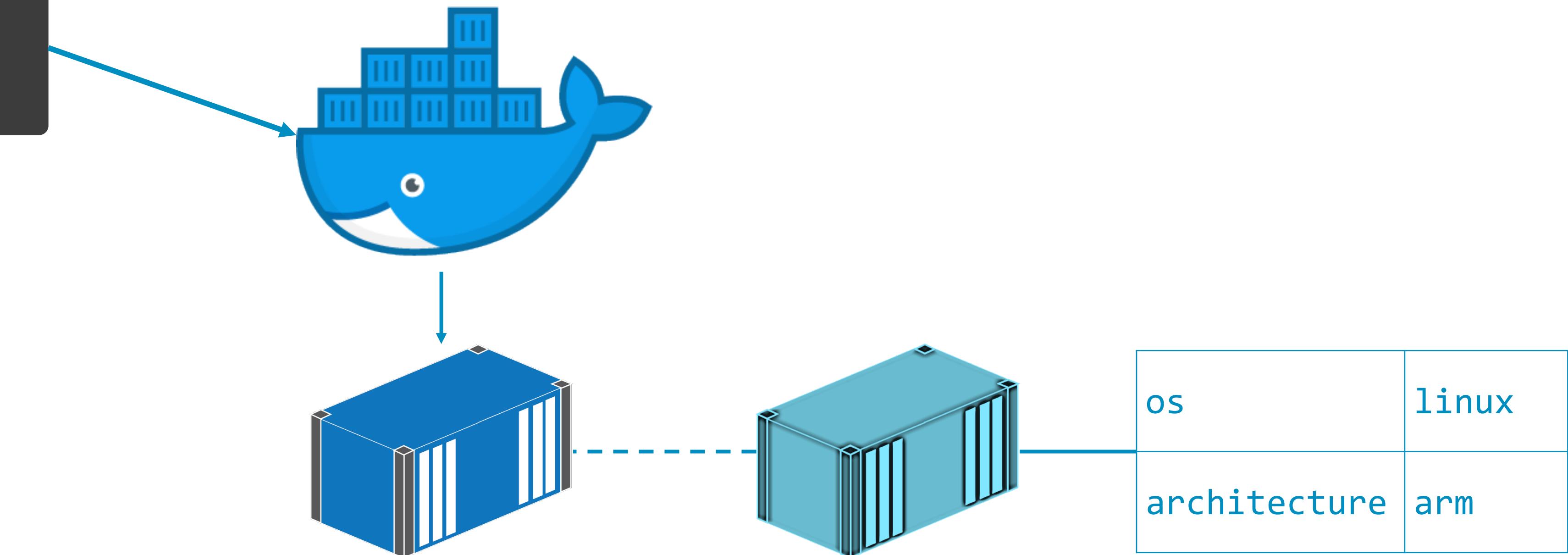
```
> docker container run...
```



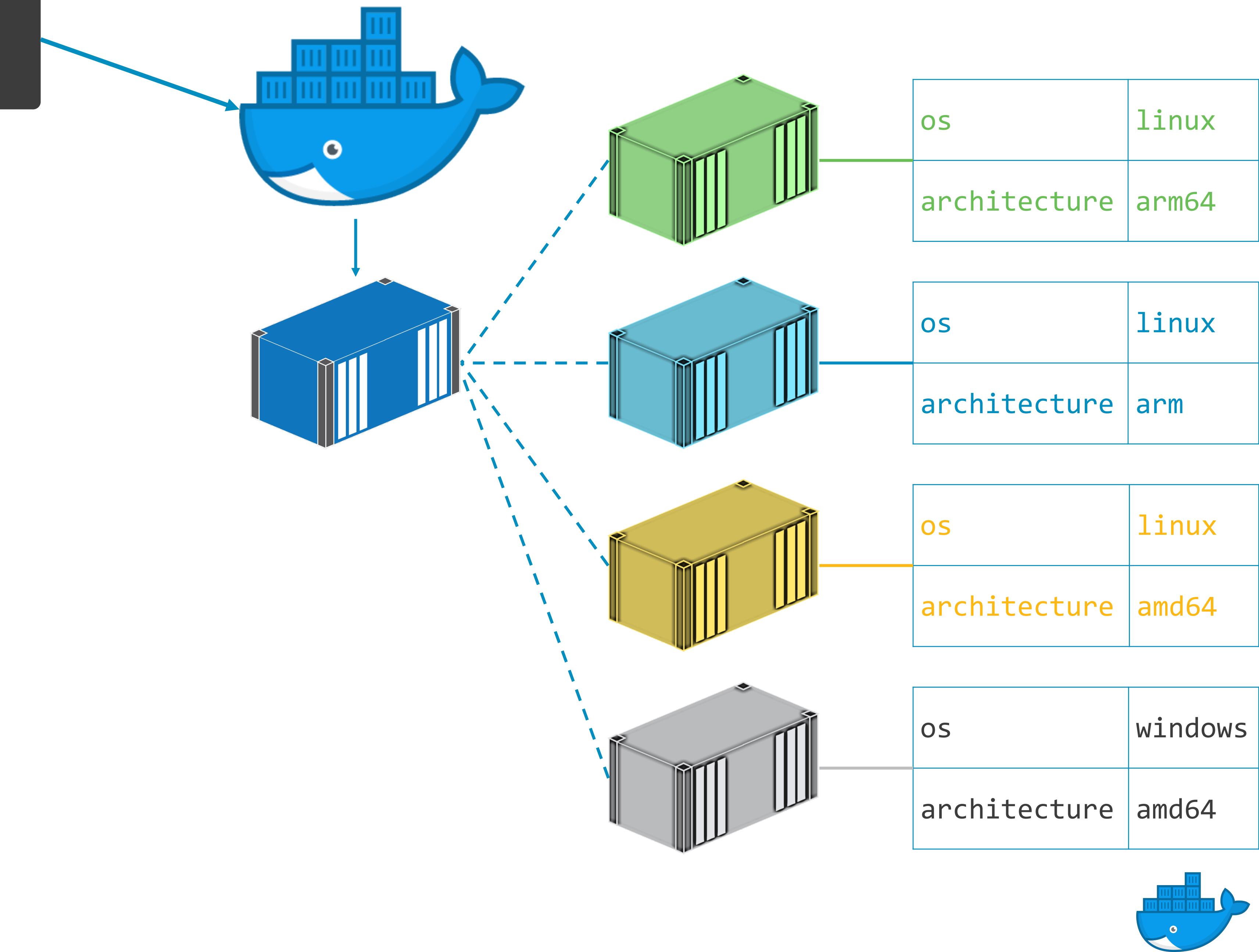
```
> docker container run...
```



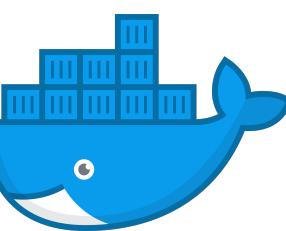
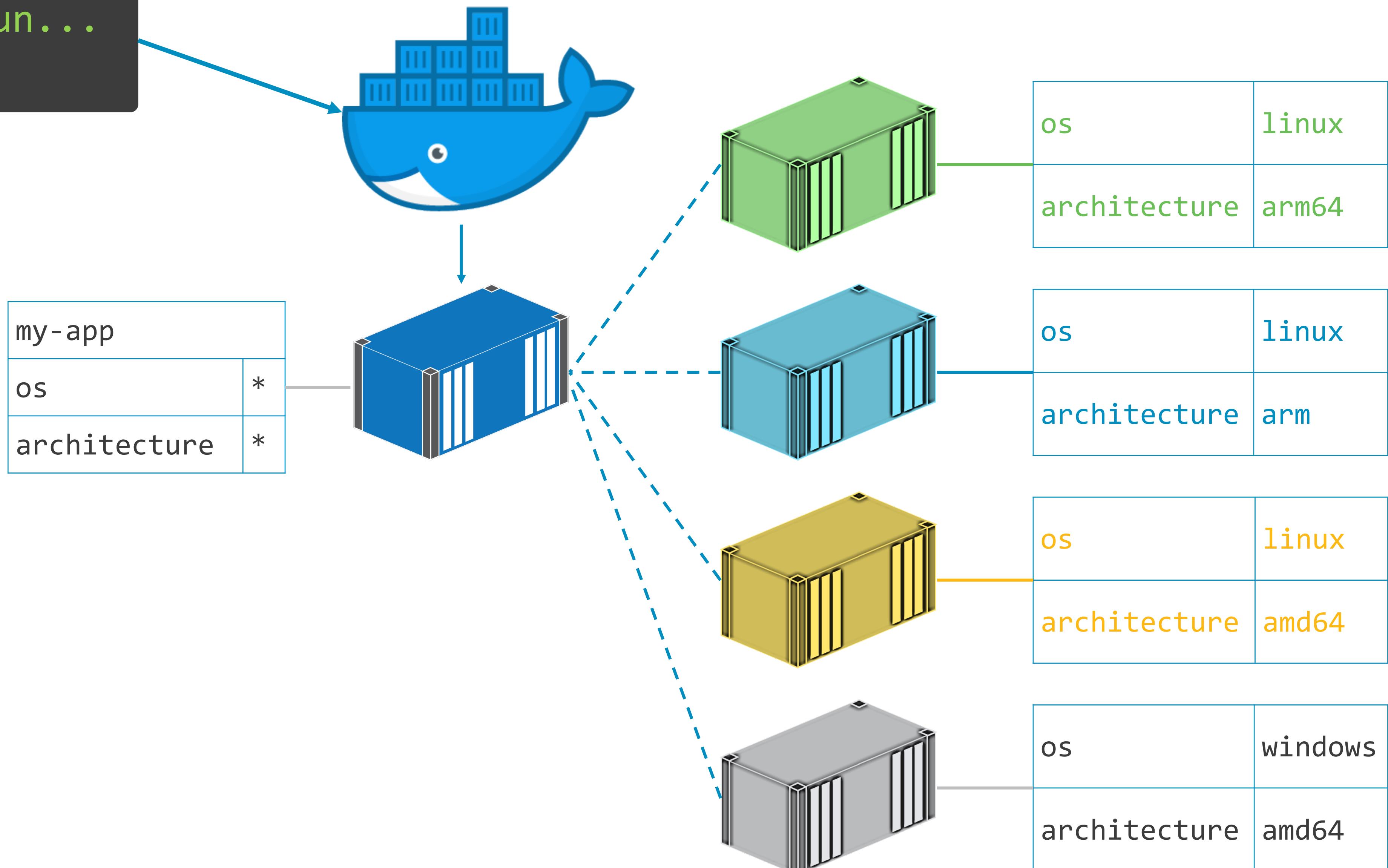
```
> docker container run...
```



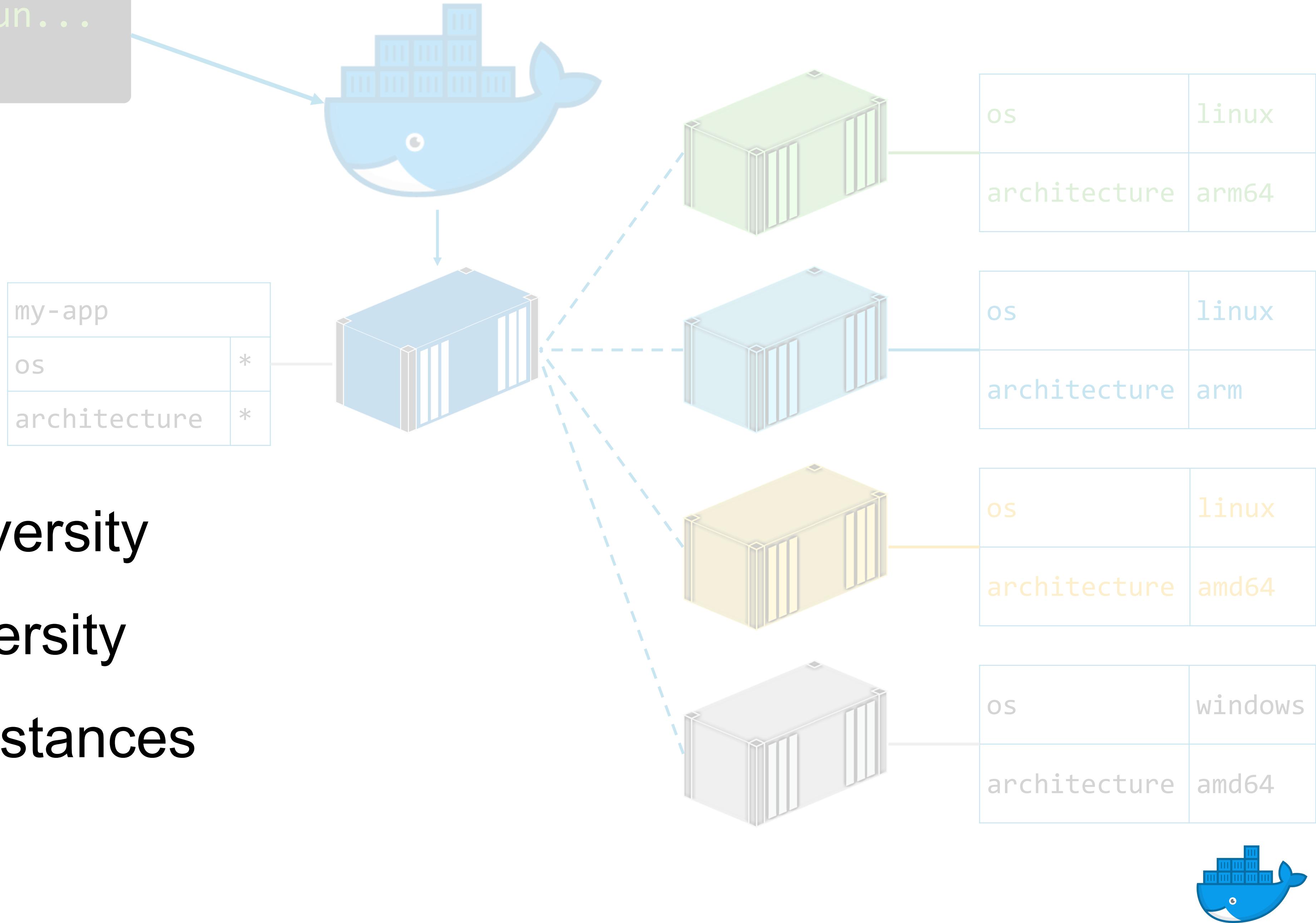
```
> docker container run...
```



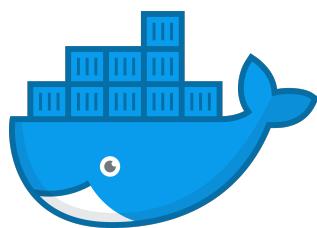
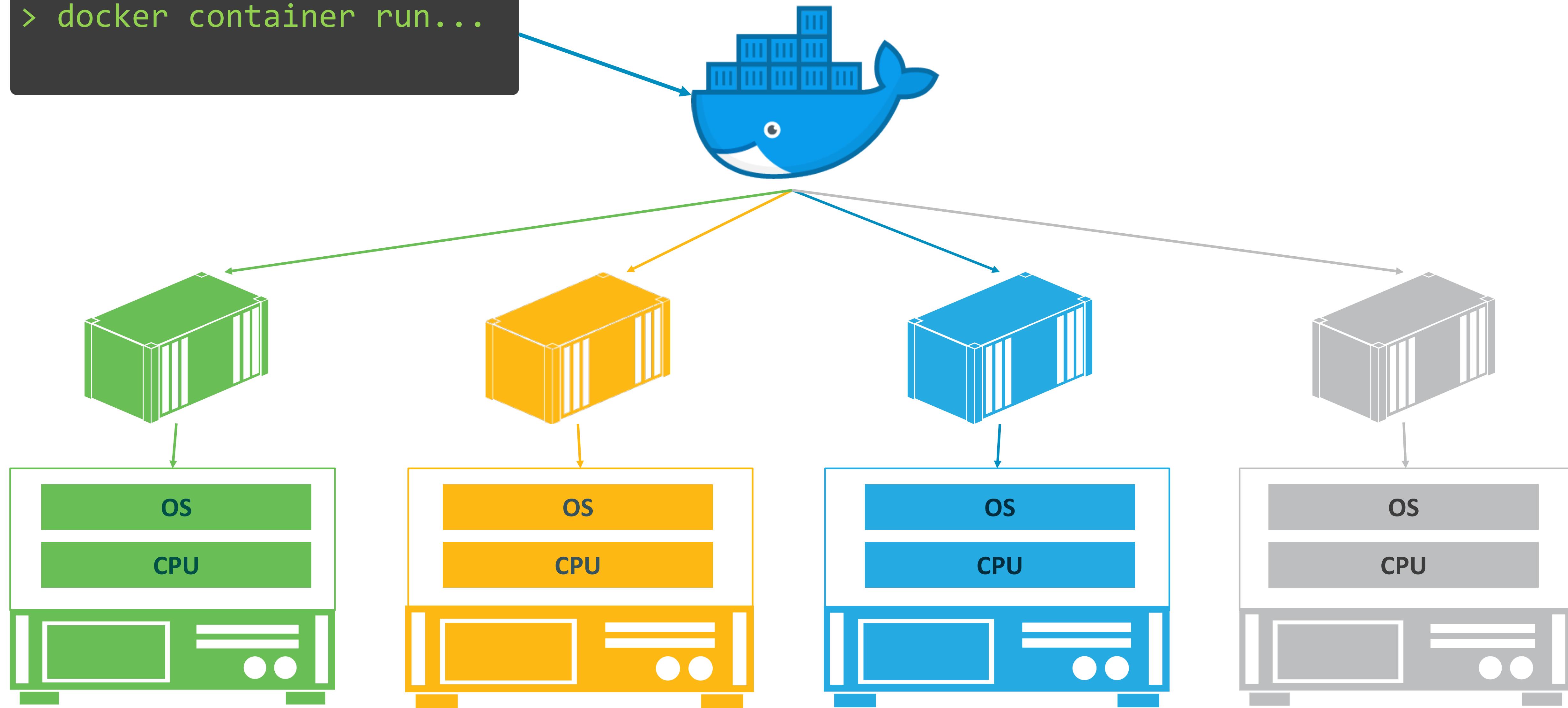
```
> docker container run...
```



> docker container run...



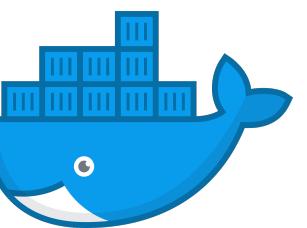
> docker container run...

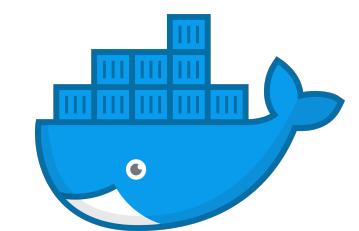
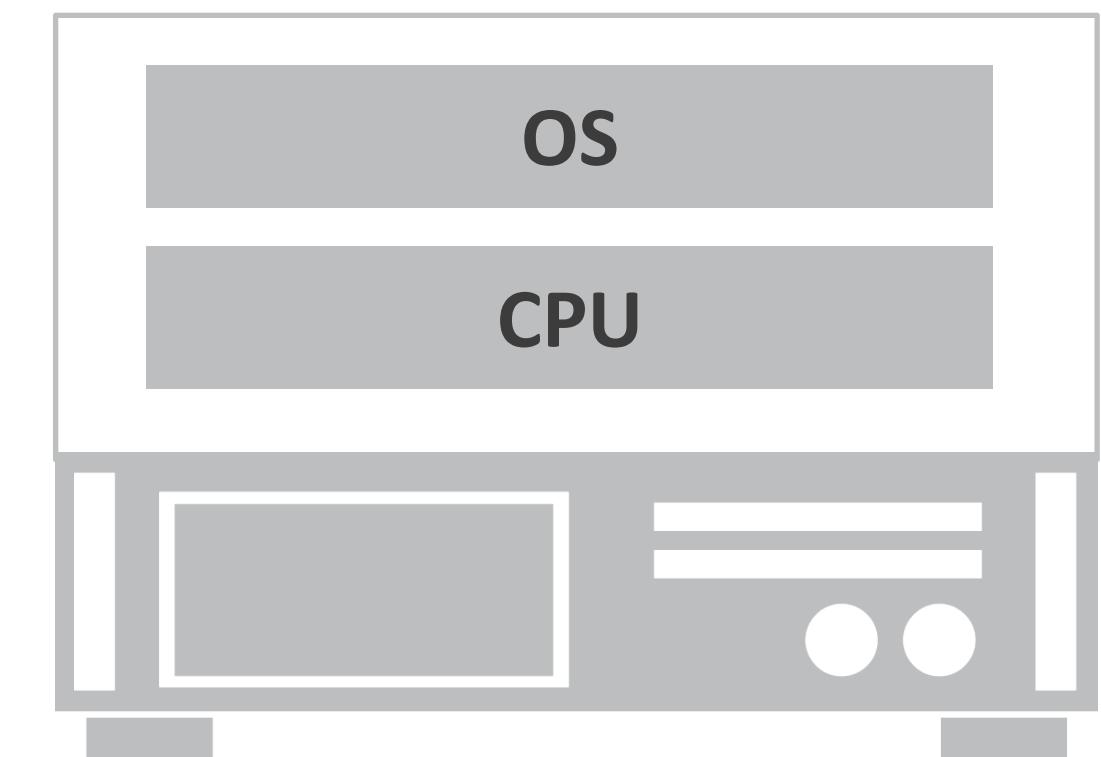
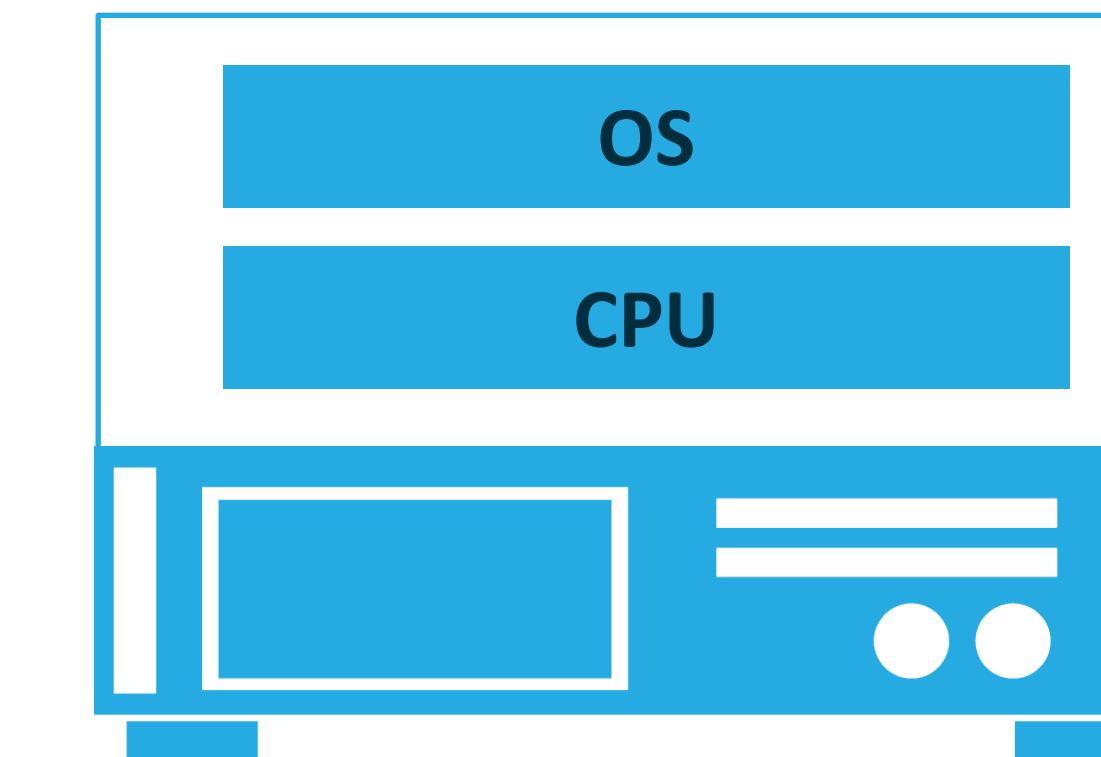
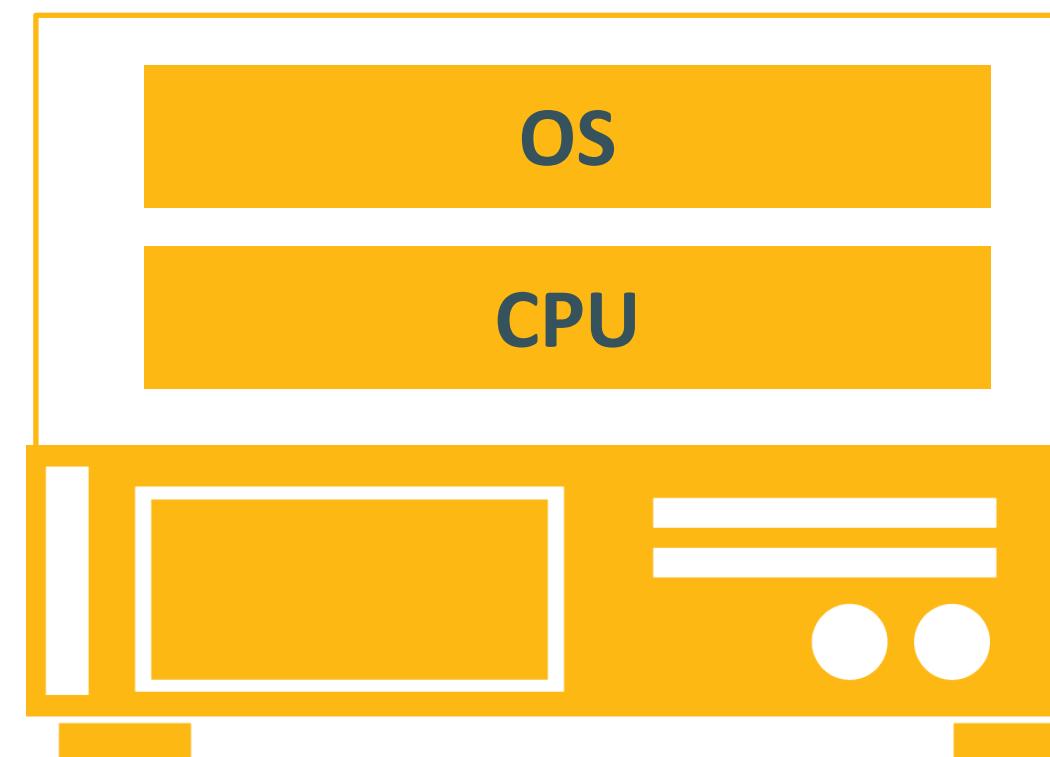
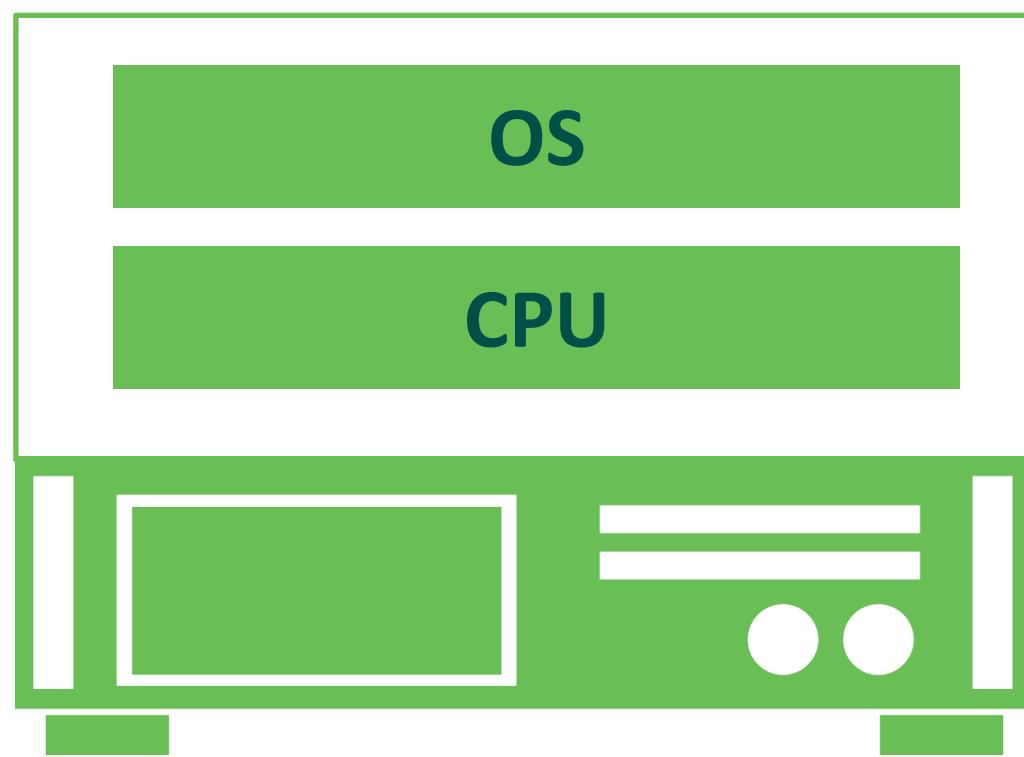
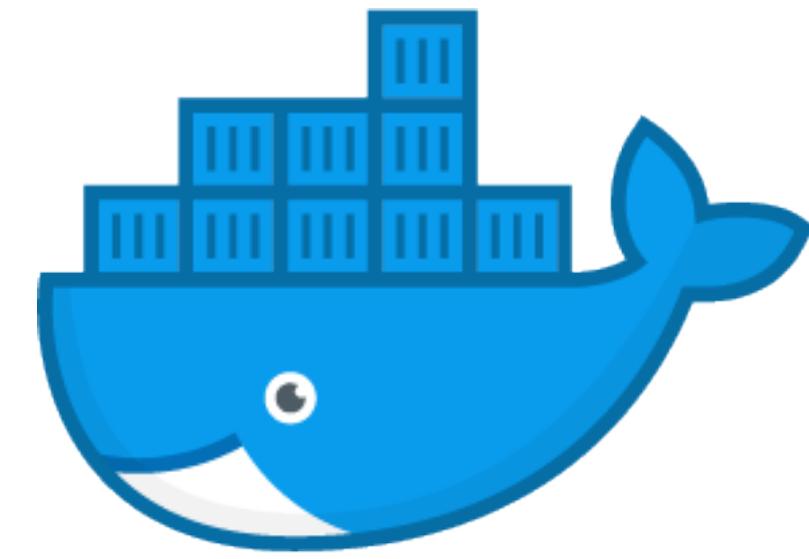


> demo

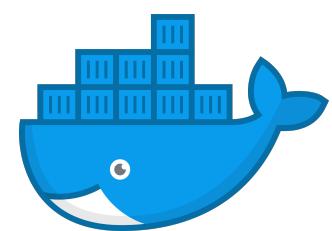
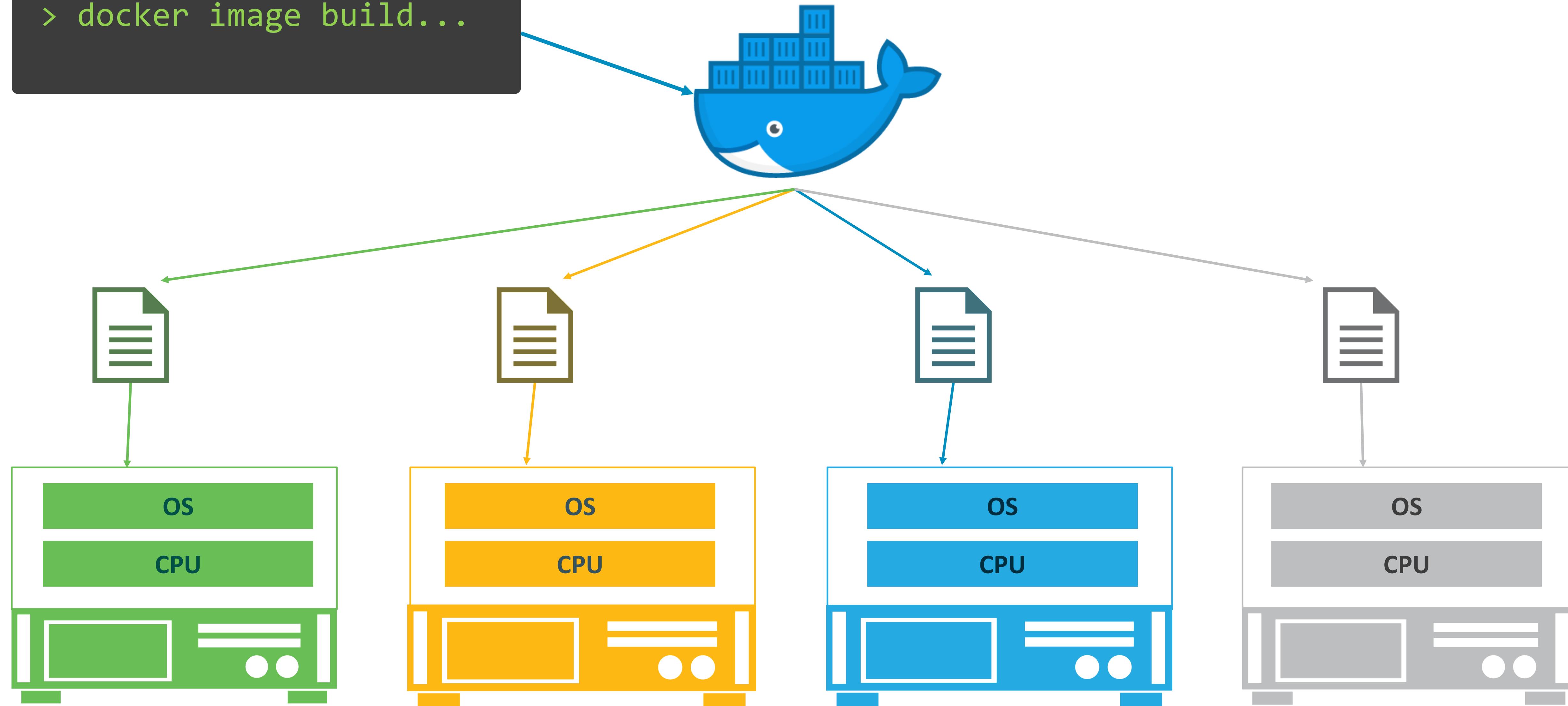


Multi-arch: the old way

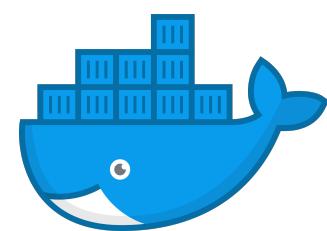
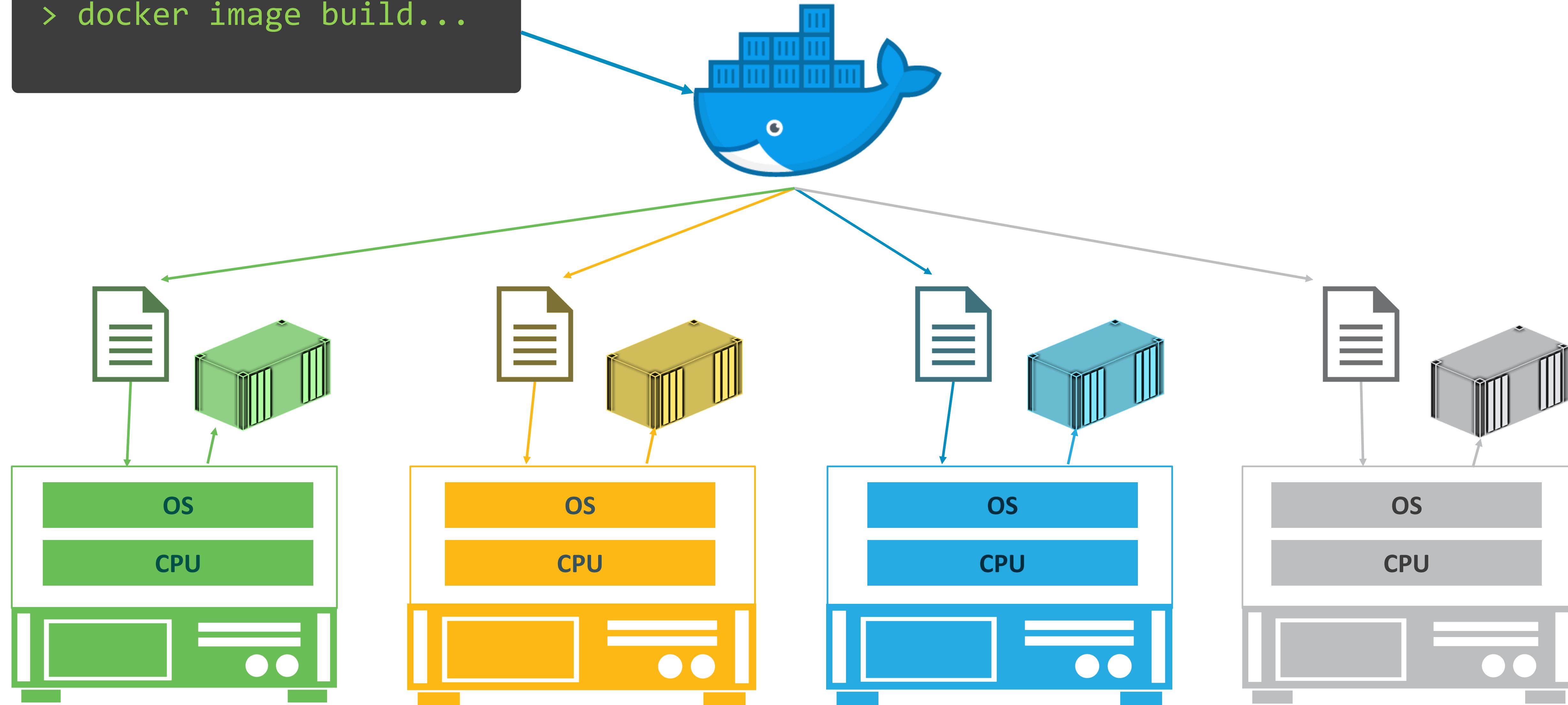




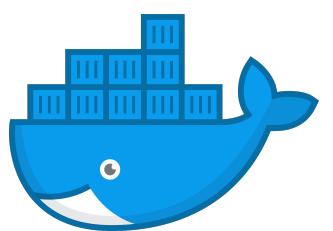
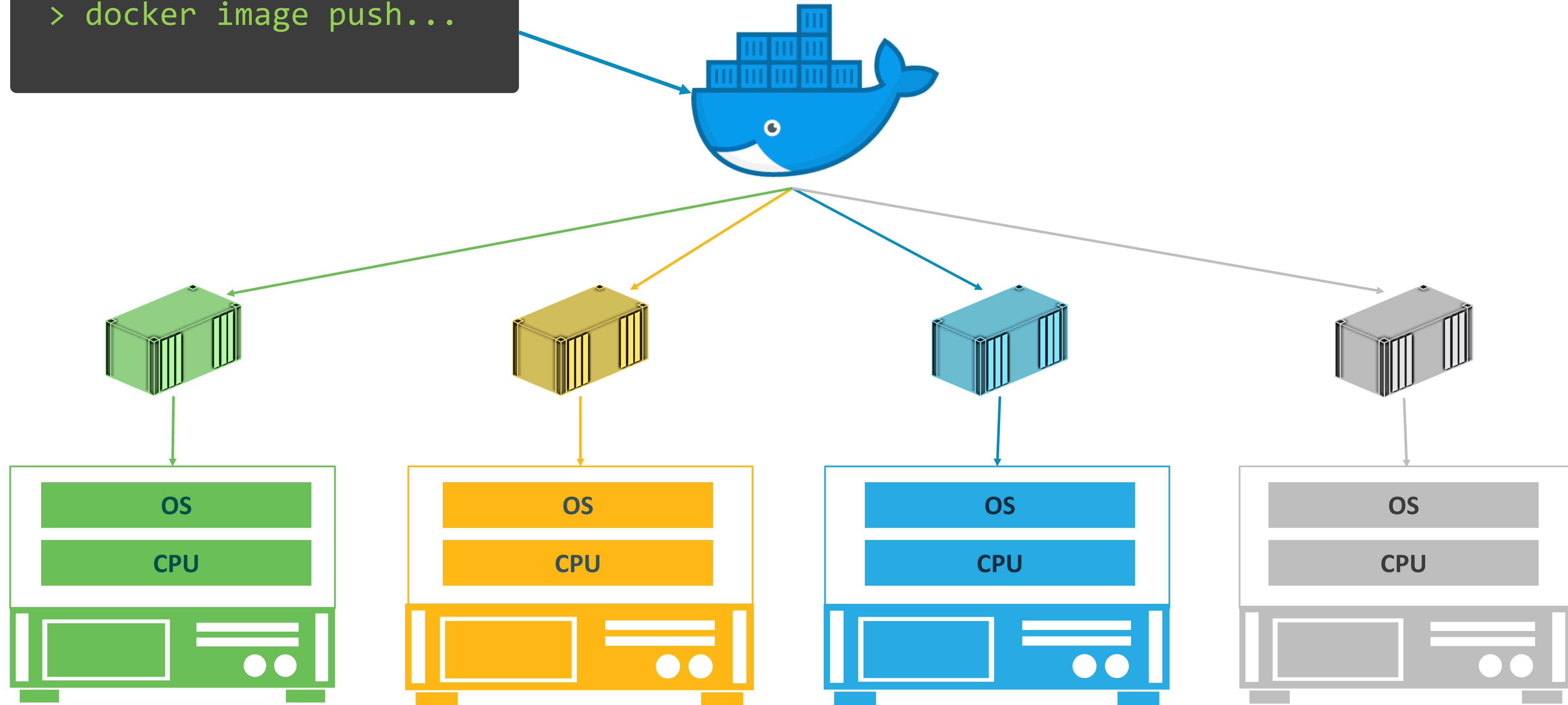
```
> docker image build...
```



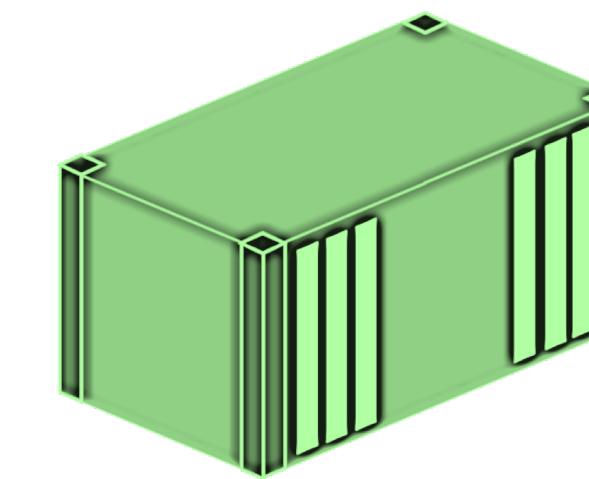
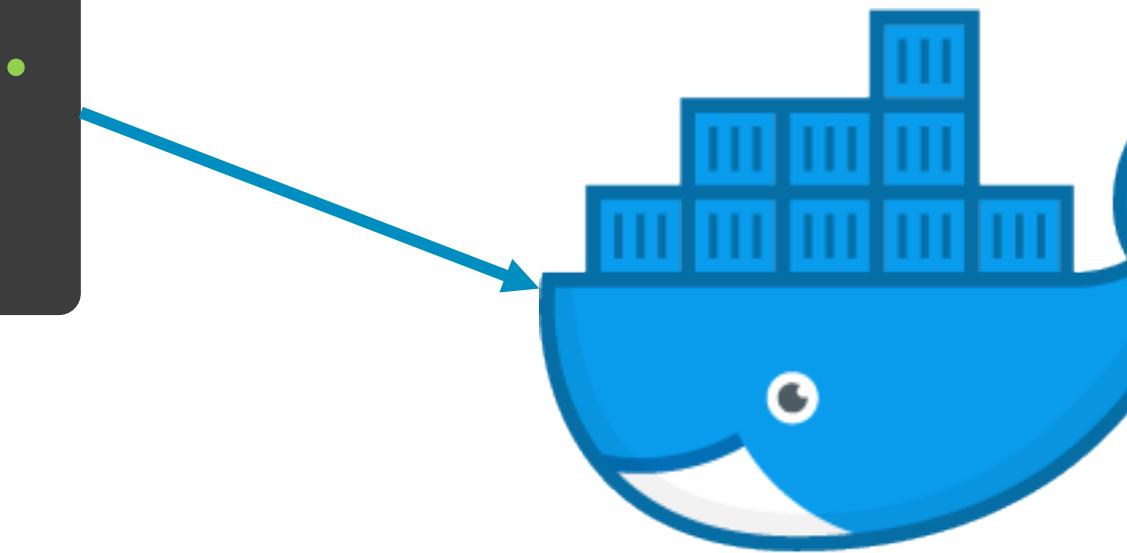
```
> docker image build...
```



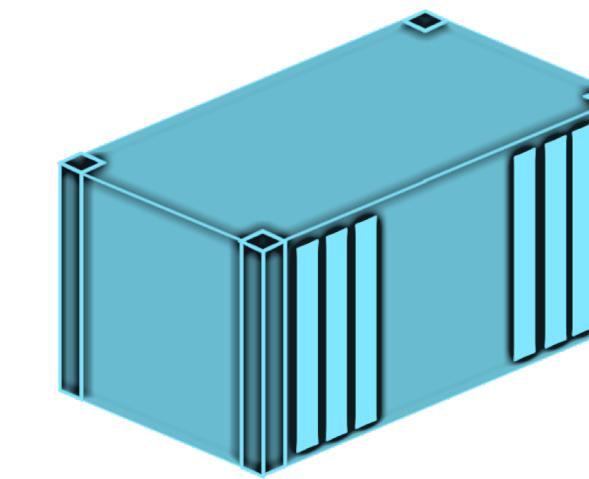
```
> docker image push...
```



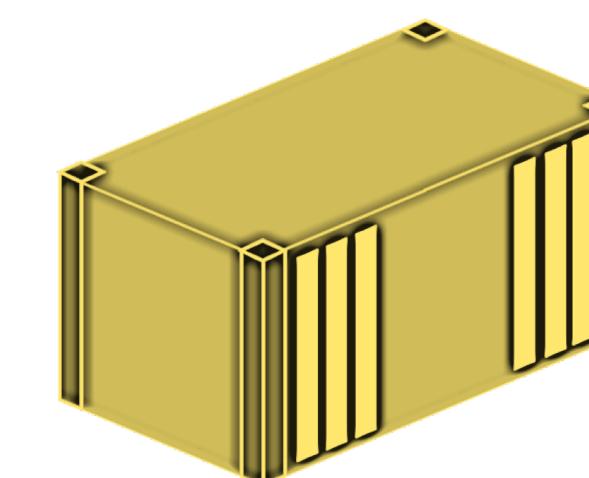
```
> docker manifest create...
```



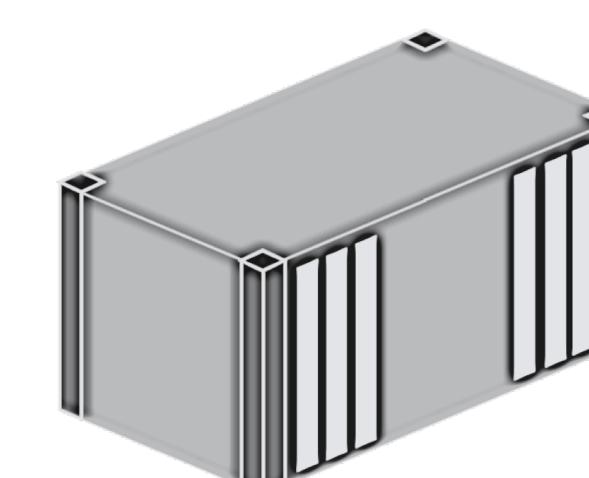
my-app:linux-arm64	
os	linux
architecture	arm64



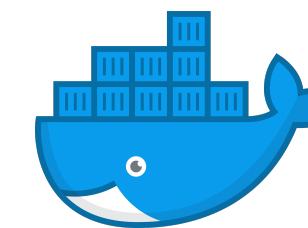
my-app:linux-arm	
os	linux
architecture	arm



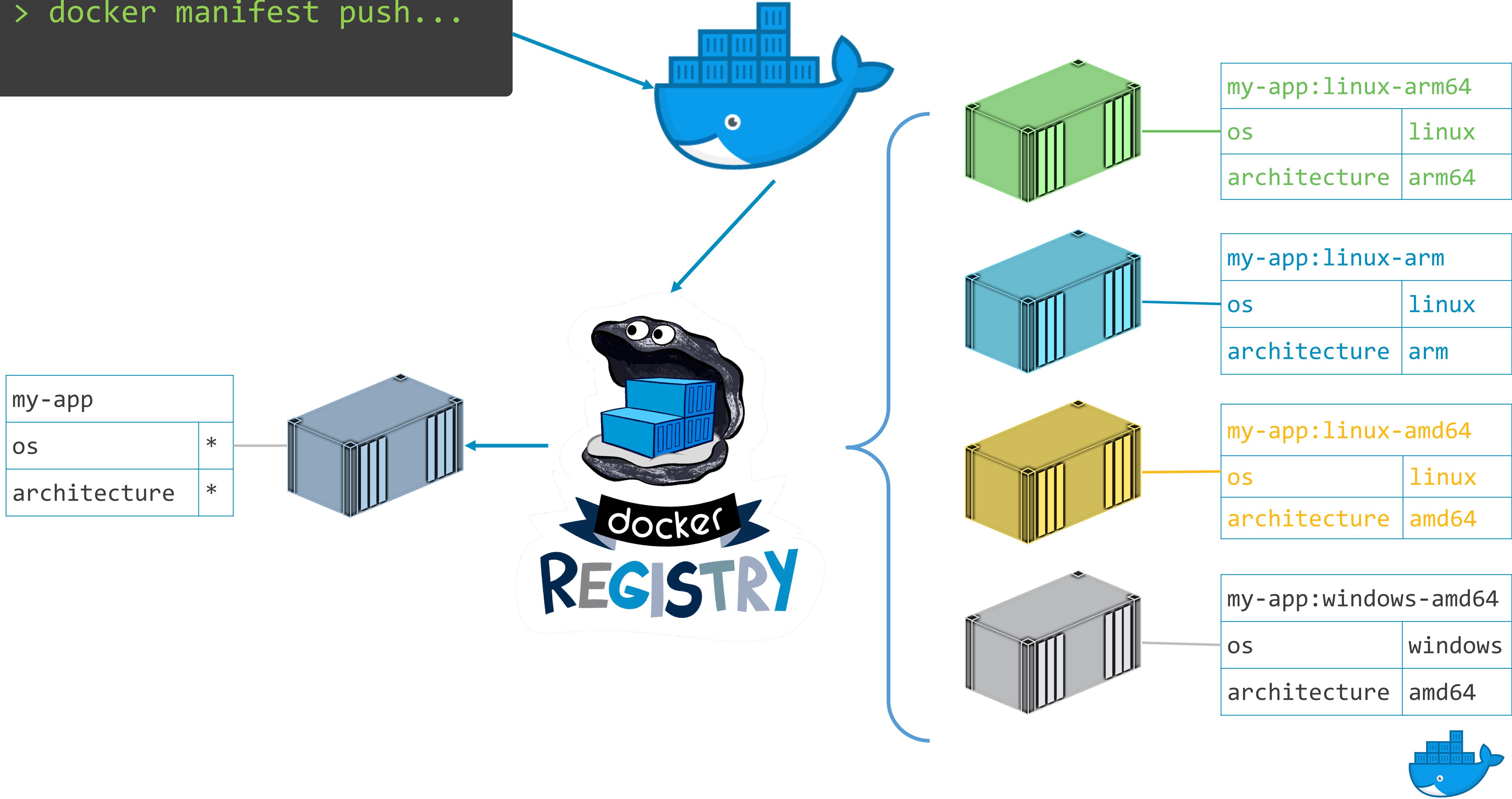
my-app:linux-amd64	
os	linux
architecture	amd64



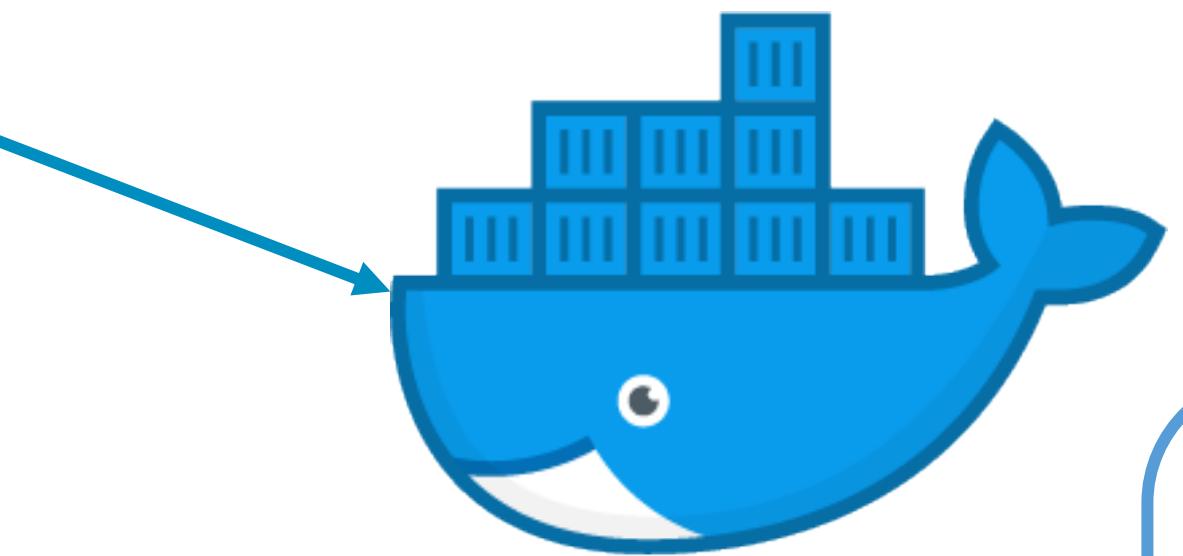
my-app:windows-amd64	
os	windows
architecture	amd64



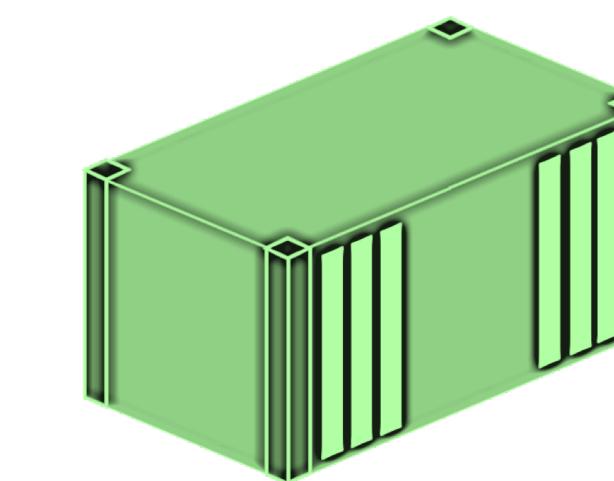
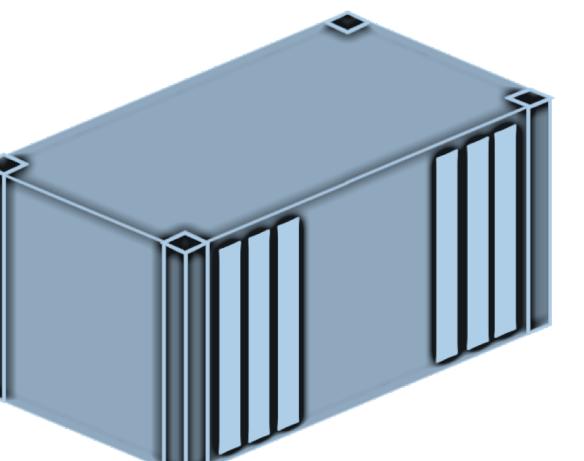
```
> docker manifest push...
```



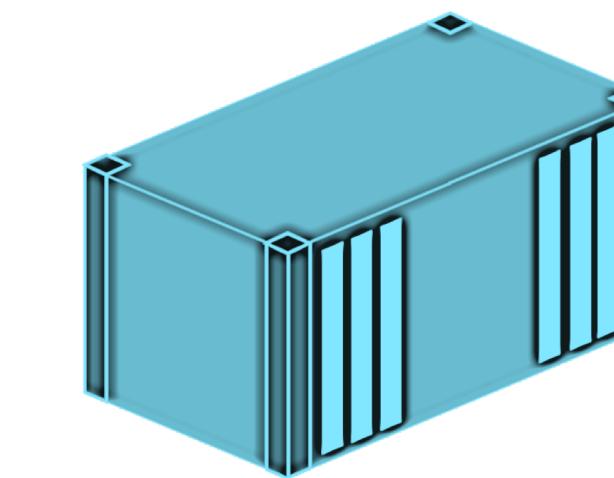
```
> docker image pull myapp
```



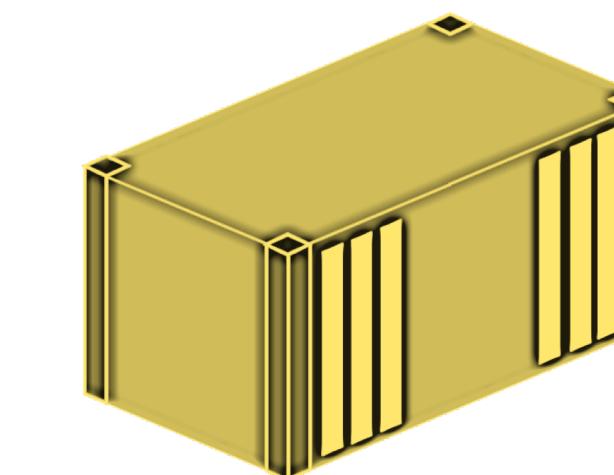
my-app	
os	*
architecture	*



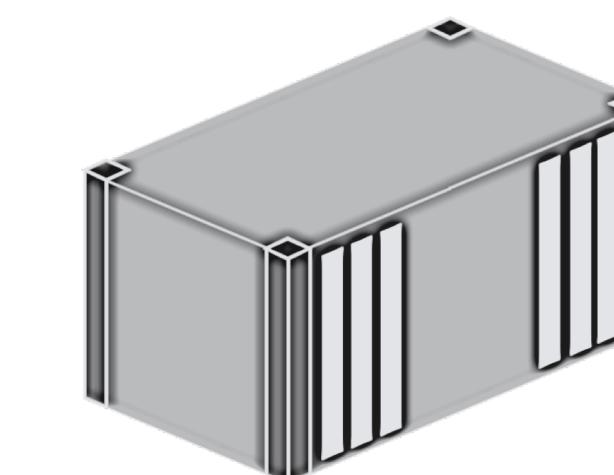
my-app:linux-arm64	
os	linux
architecture	arm64



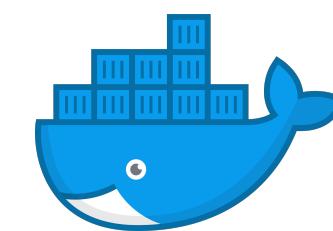
my-app:linux-arm	
os	linux
architecture	arm



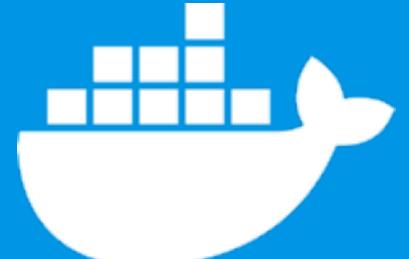
my-app:linux-amd64	
os	linux
architecture	amd64



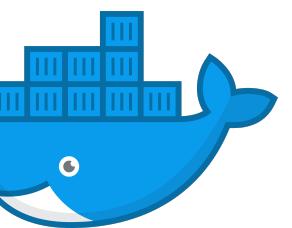
my-app:windows-amd64	
os	windows
architecture	amd64



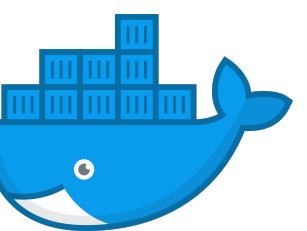
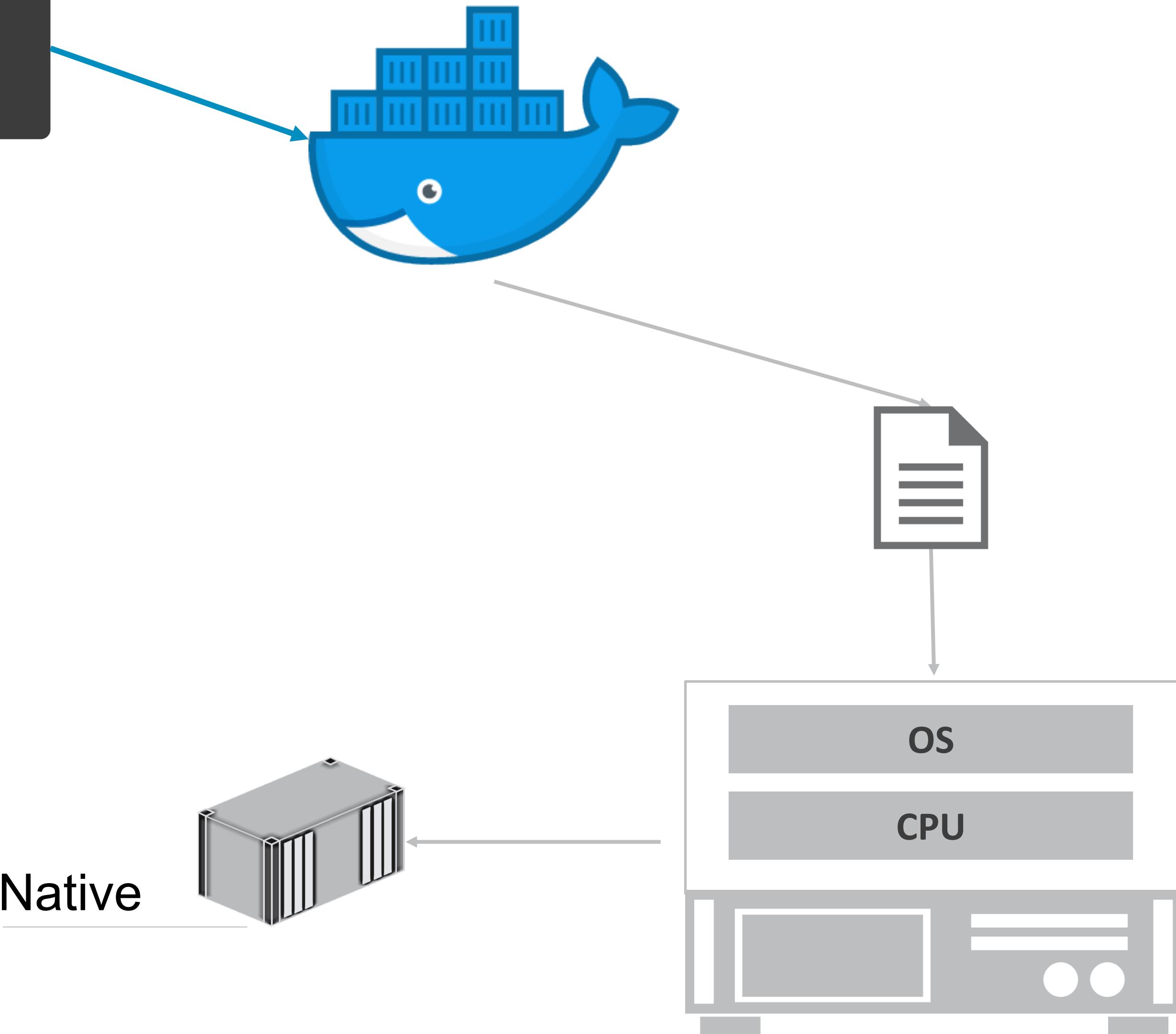
> demo



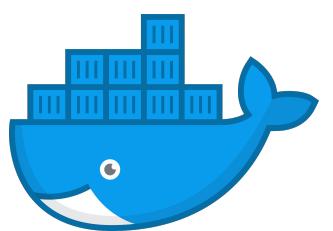
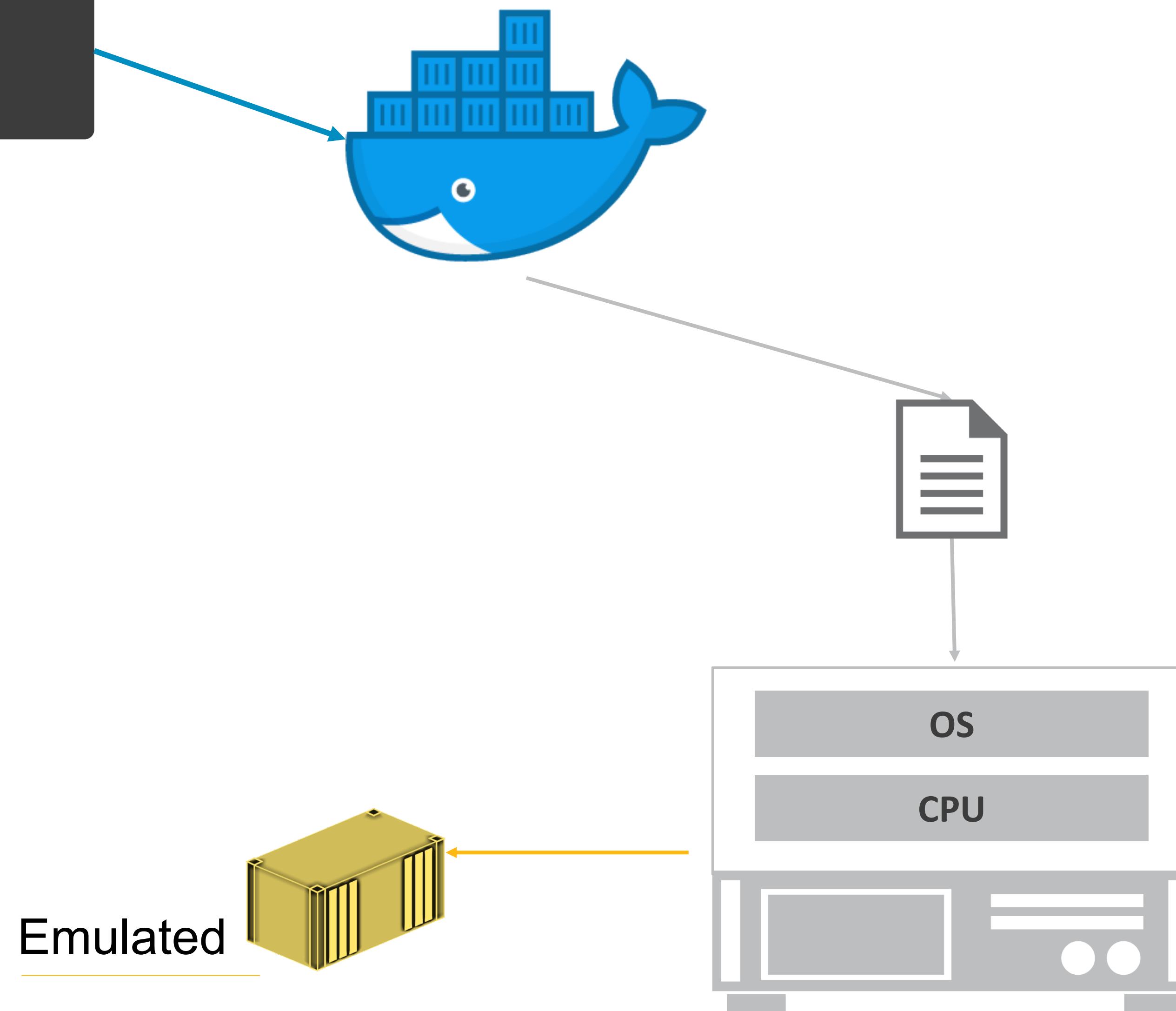
Multi-arch: with `buildx`



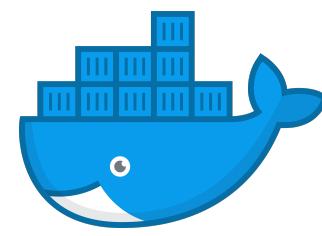
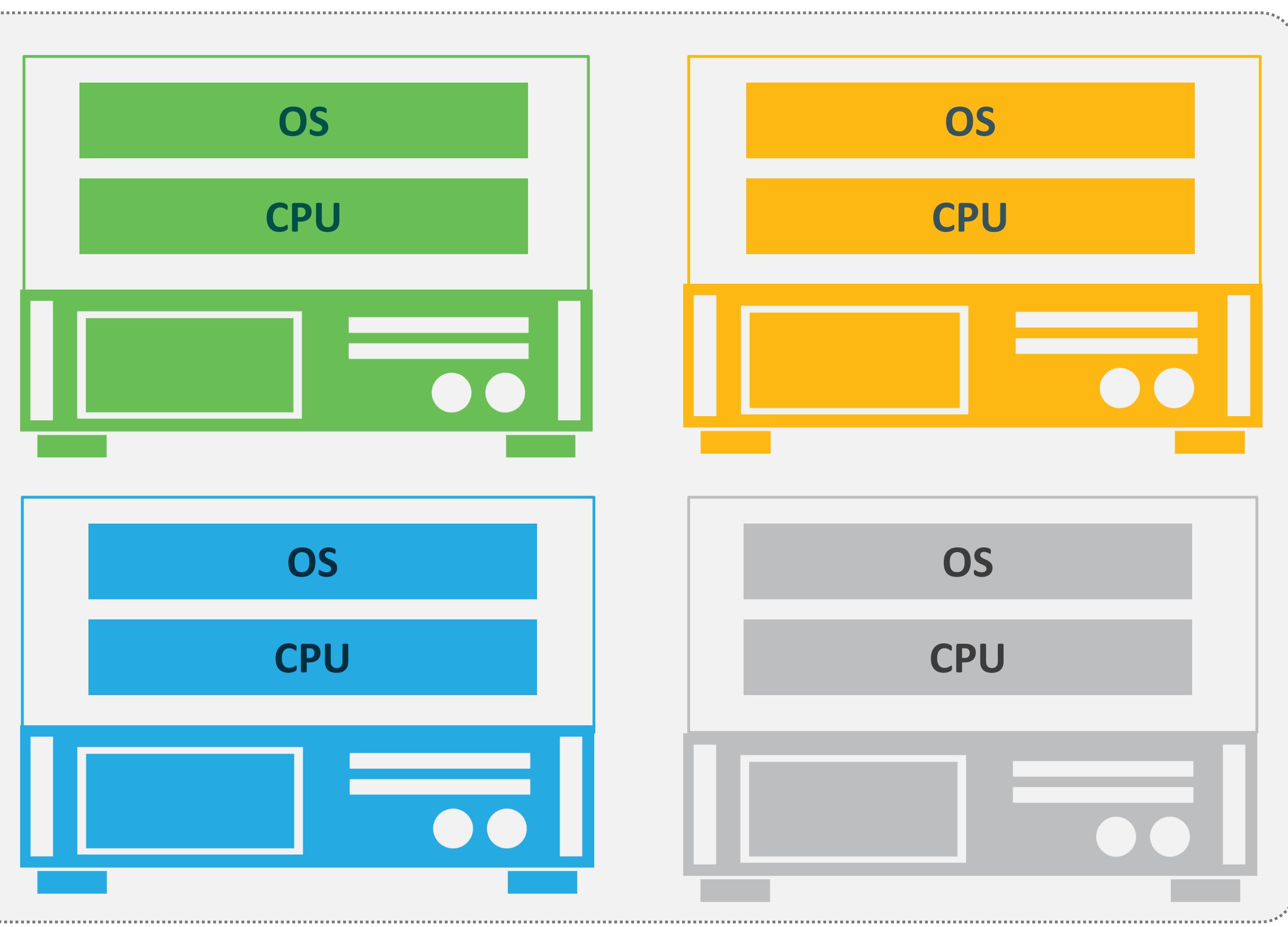
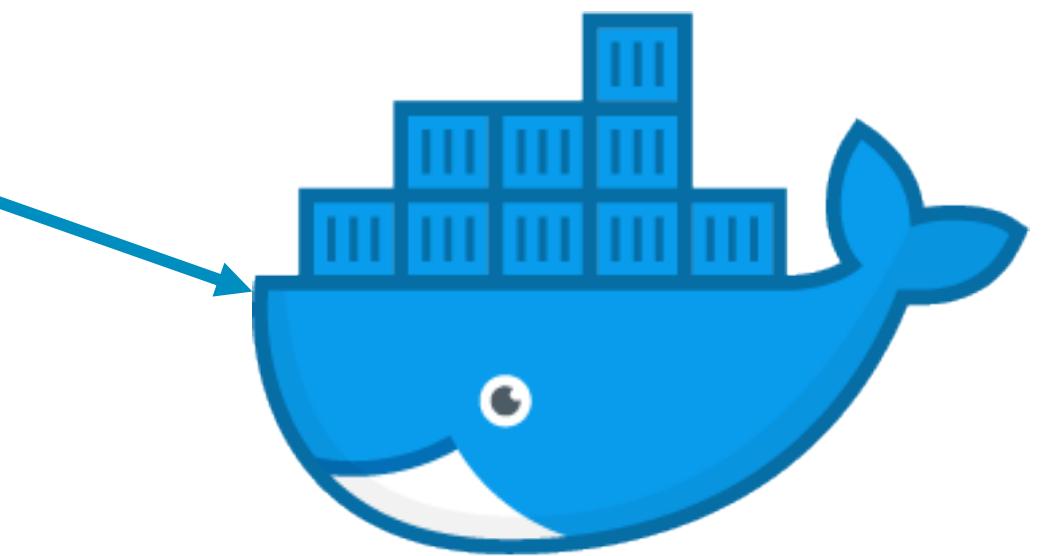
```
> docker buildx build...
```



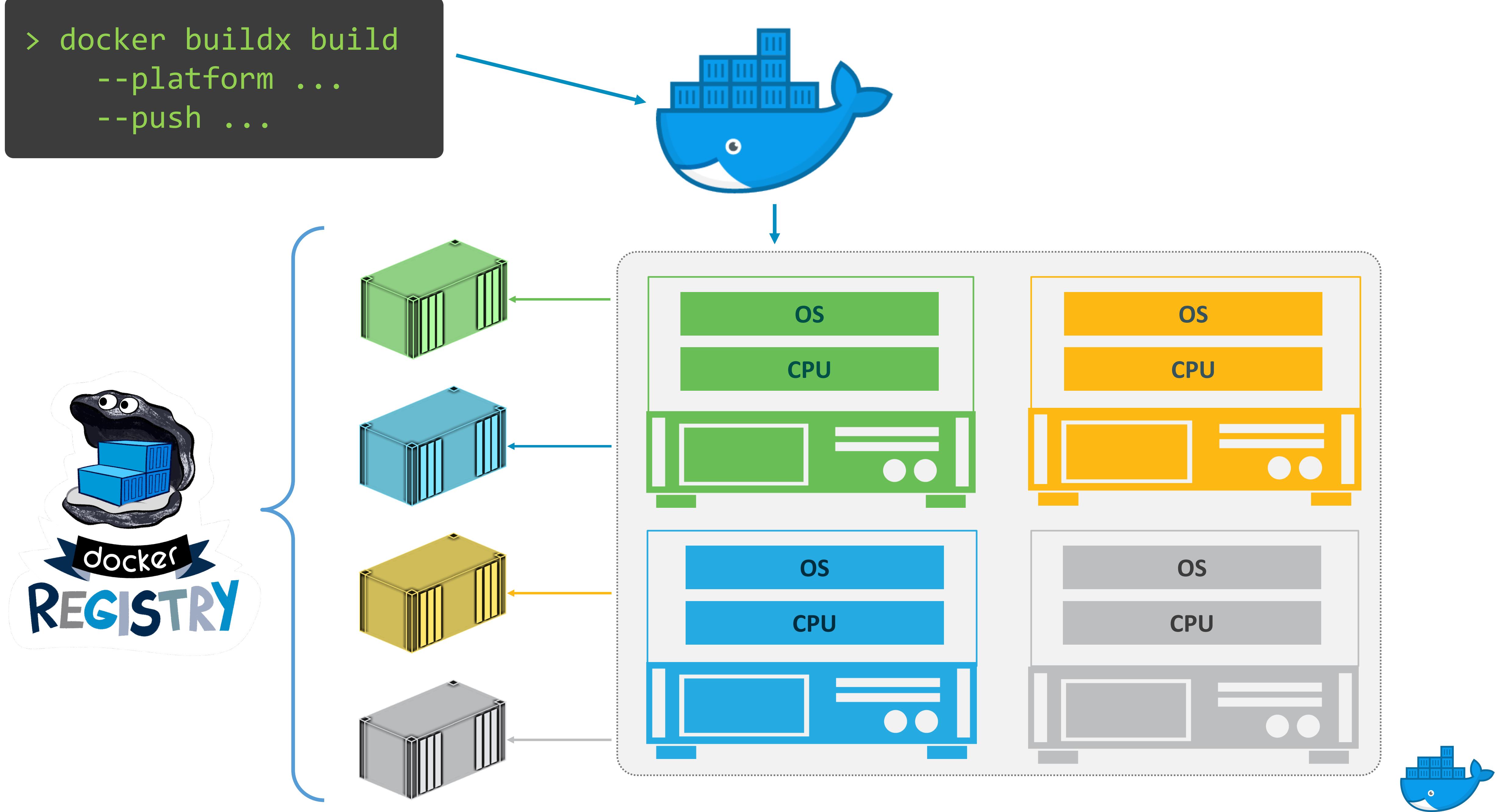
```
> docker buildx build  
--platform ...
```



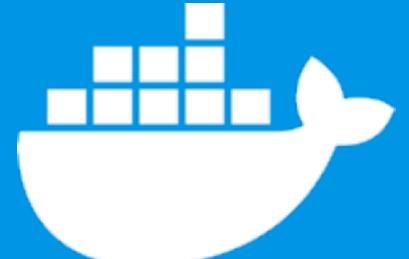
```
> docker buildx create...
```



```
> docker buildx build  
--platform ...  
--push ...
```

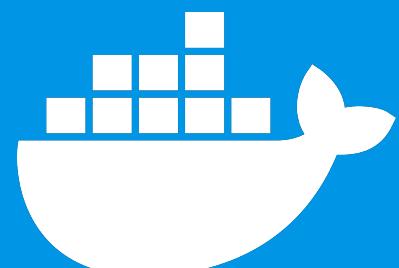
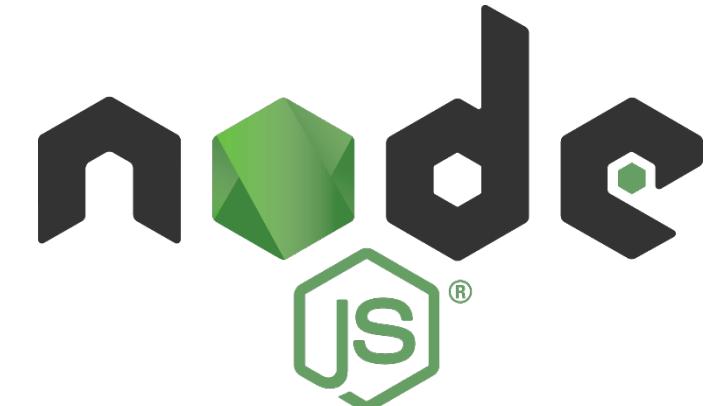


> demo



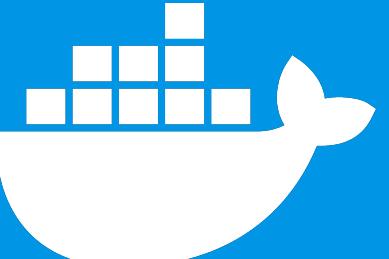
TAKEAWAYS

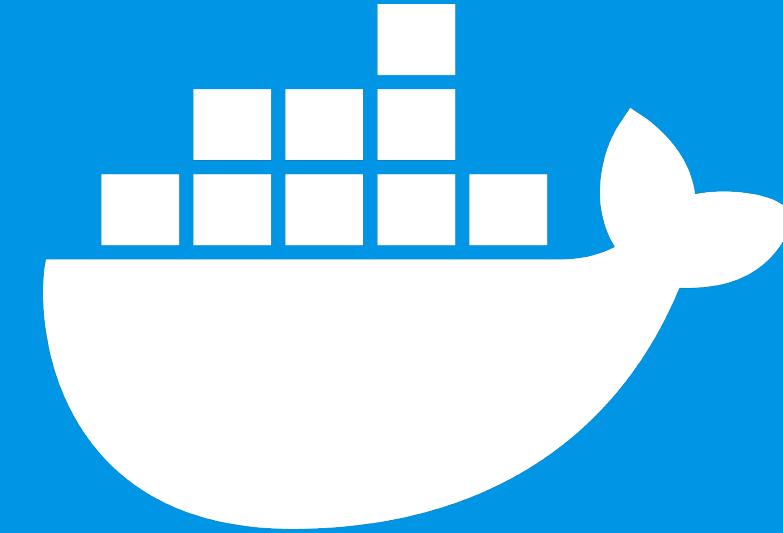
- Everything should be multi-platform
- Always use multi-stage Dockerfiles
- `buildx` is experimental but solid (based on BuildKit)
- Alternatively use `docker manifest`... also experimental :)



NEXT STEPS

- Today's demos | is.gd/2ad2c9
- DIAMOL – Manning 40% discount | [webdoc40](#)
- Docker learning path on Pluralsight | is.gd/00fYmU
- DockerCon 2020 | Austin TX, June 15-18





THANK YOU :)

@EltonStoneman | elton@docker.com