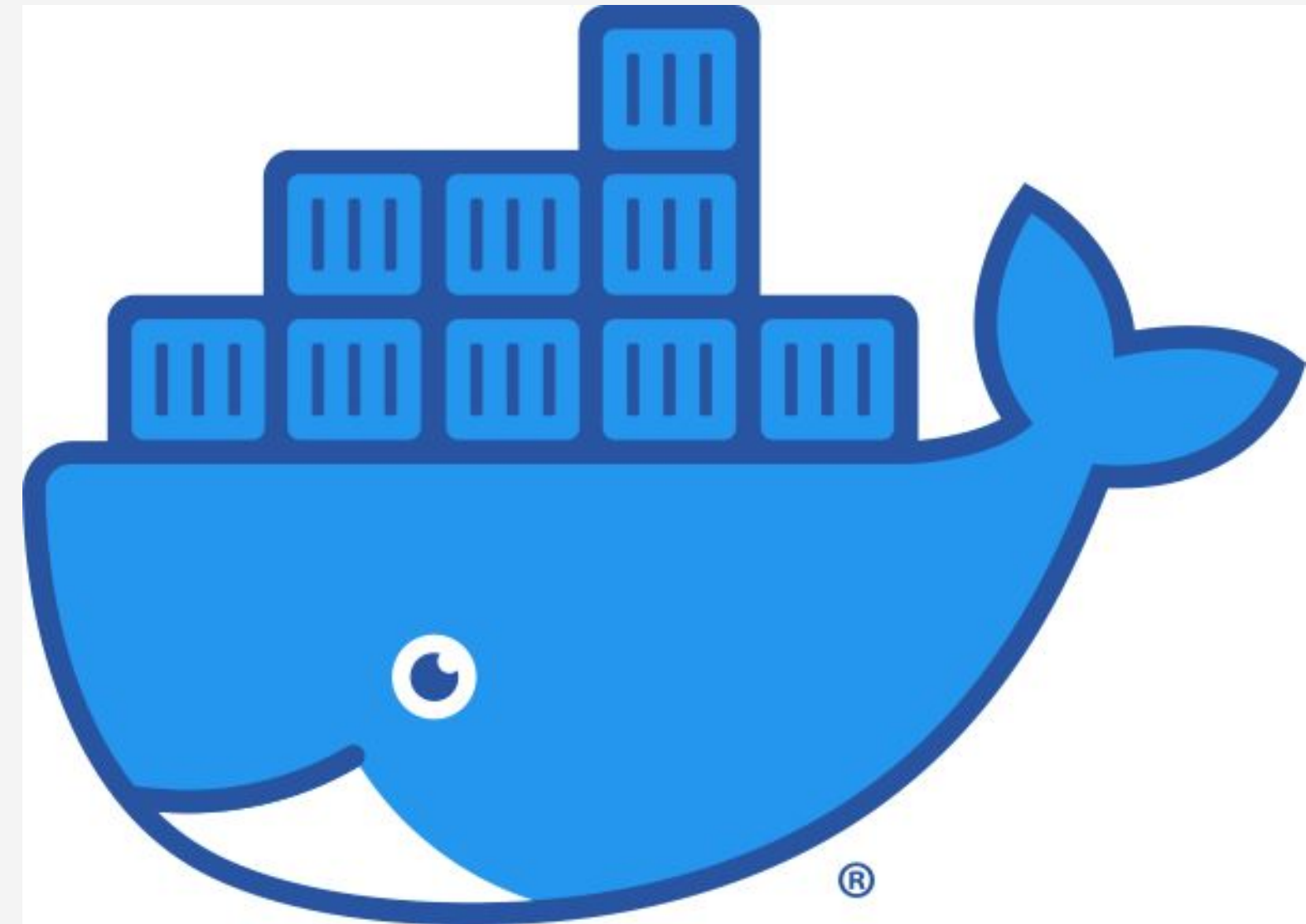


Docker

An open platform for distributed applications





Why we need Docker

An application works in developer's laptop but not in testing or production. This is due to difference in computing environment between Dev, Test and Prod.



Dev

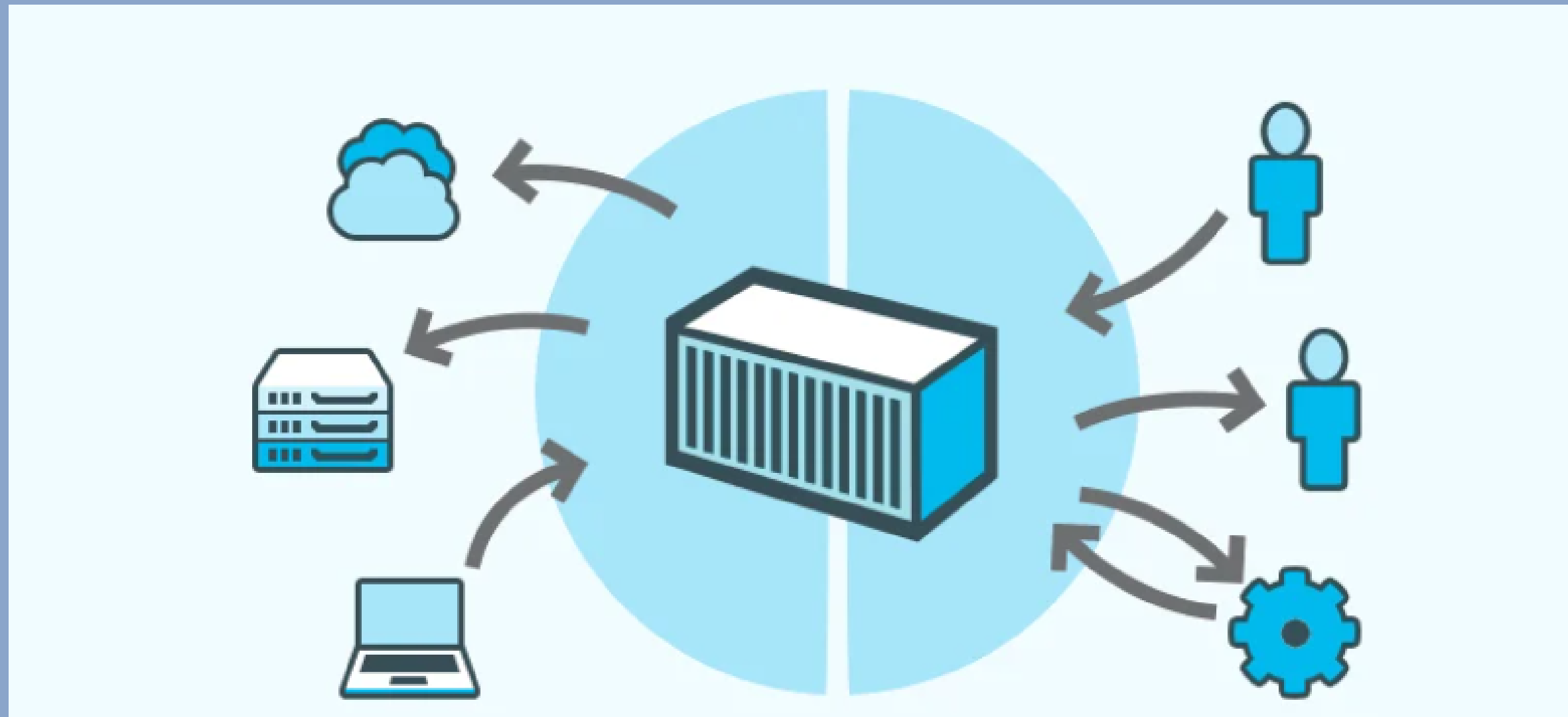


Prod

In Dev there can be a software that is upgraded and in Prod the old version of software might be present



What is Docker



Docker Engine

A portable, lightweight application runtime and packaging tool.

Docker Hub

A cloud service for sharing applications and automating workflows.

Docker Engine



Docker Engine = Docker Daemon + Docker CLI

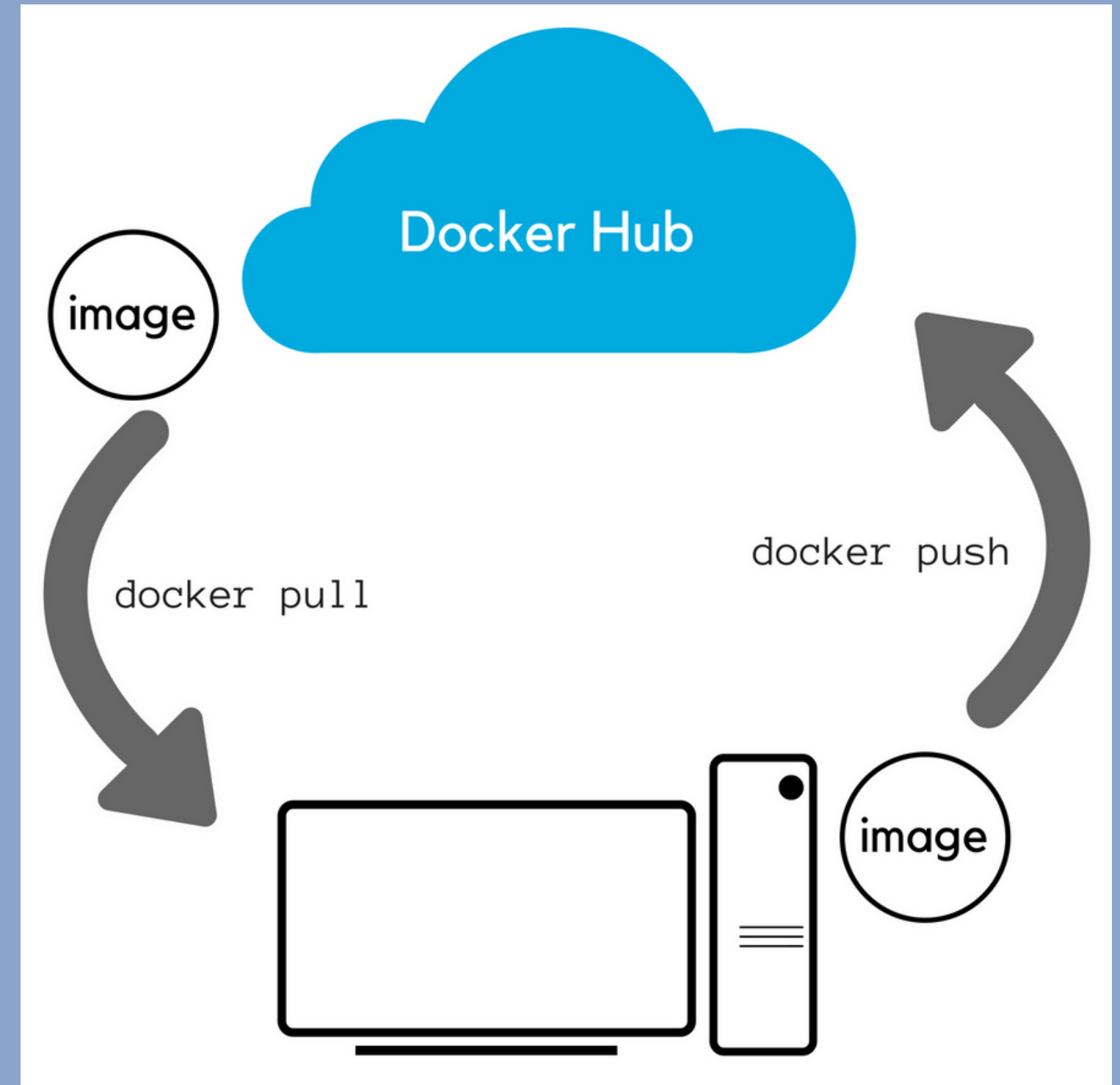
- Builds Images
- Runs and manages containers
- RESTful APIs

- `docker build`
- `docker images`
- `docker run`
- `docker ps`
- `docker stop`

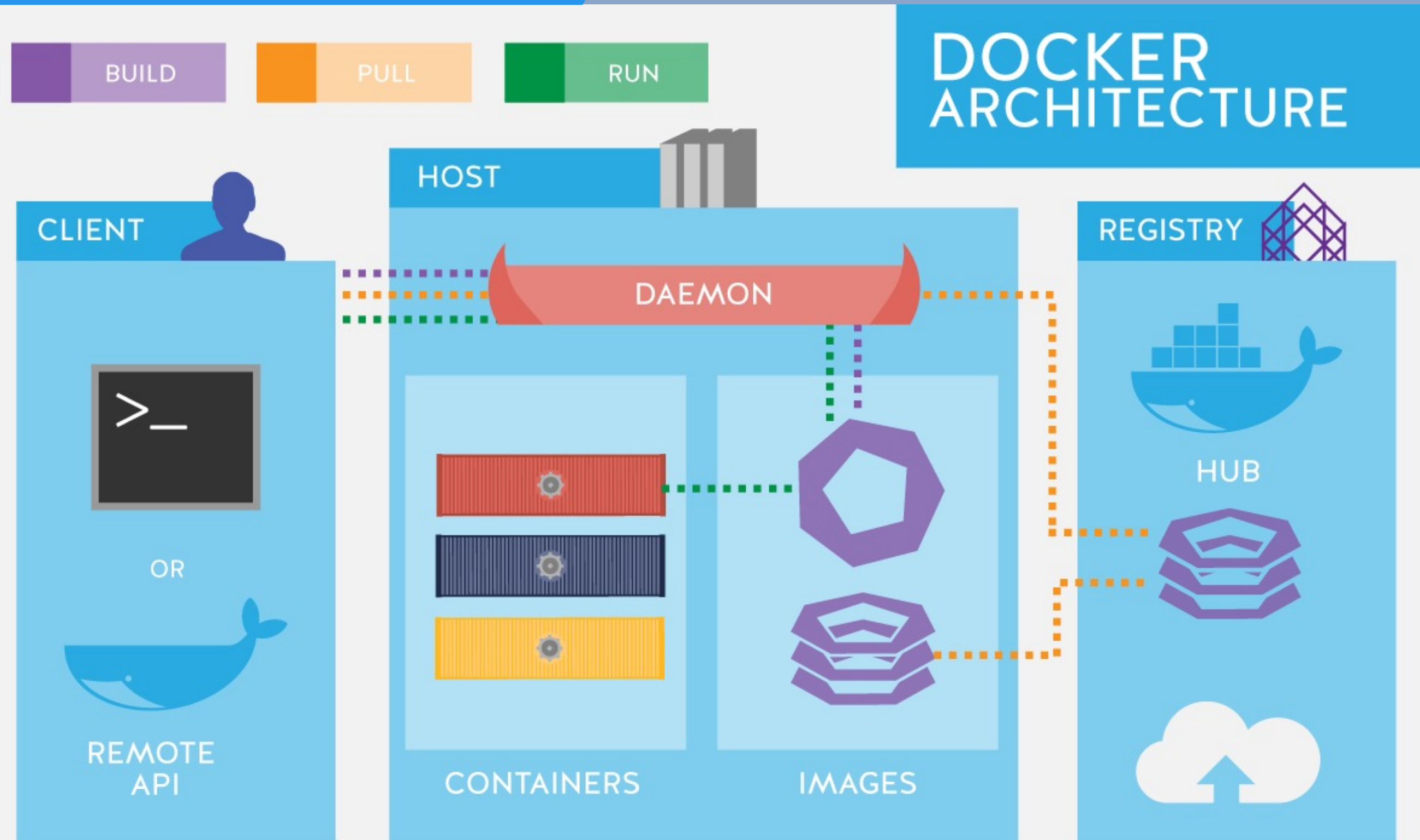
Docker Hub



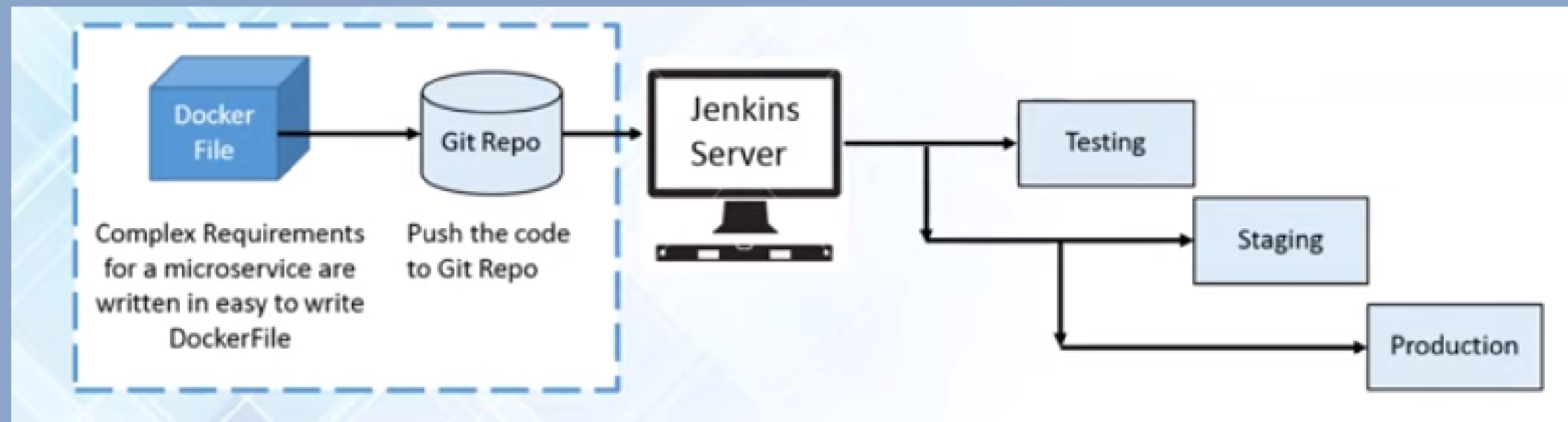
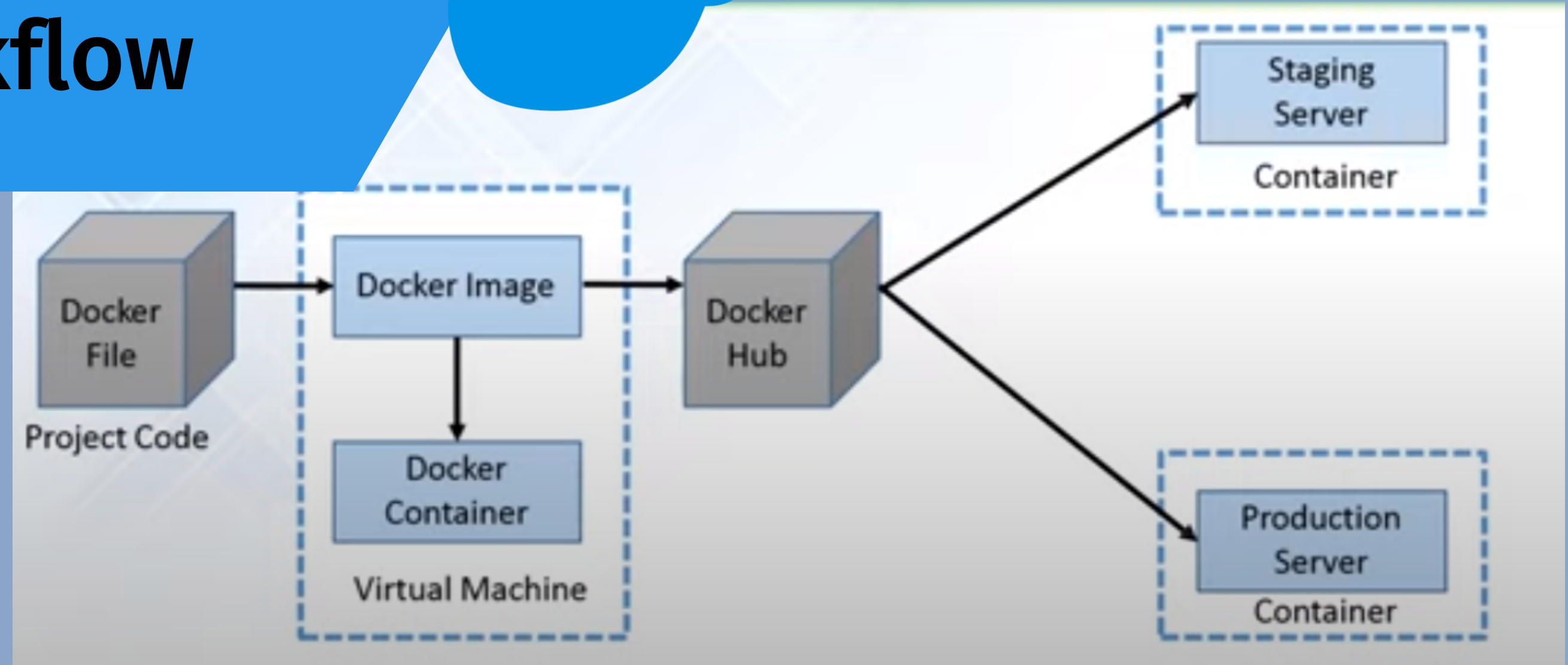
- Provides Docker Services
- Library of public images
- Storage for your images
- Free for public images
- Cost for private images
- Automated builds



Docker Architecture



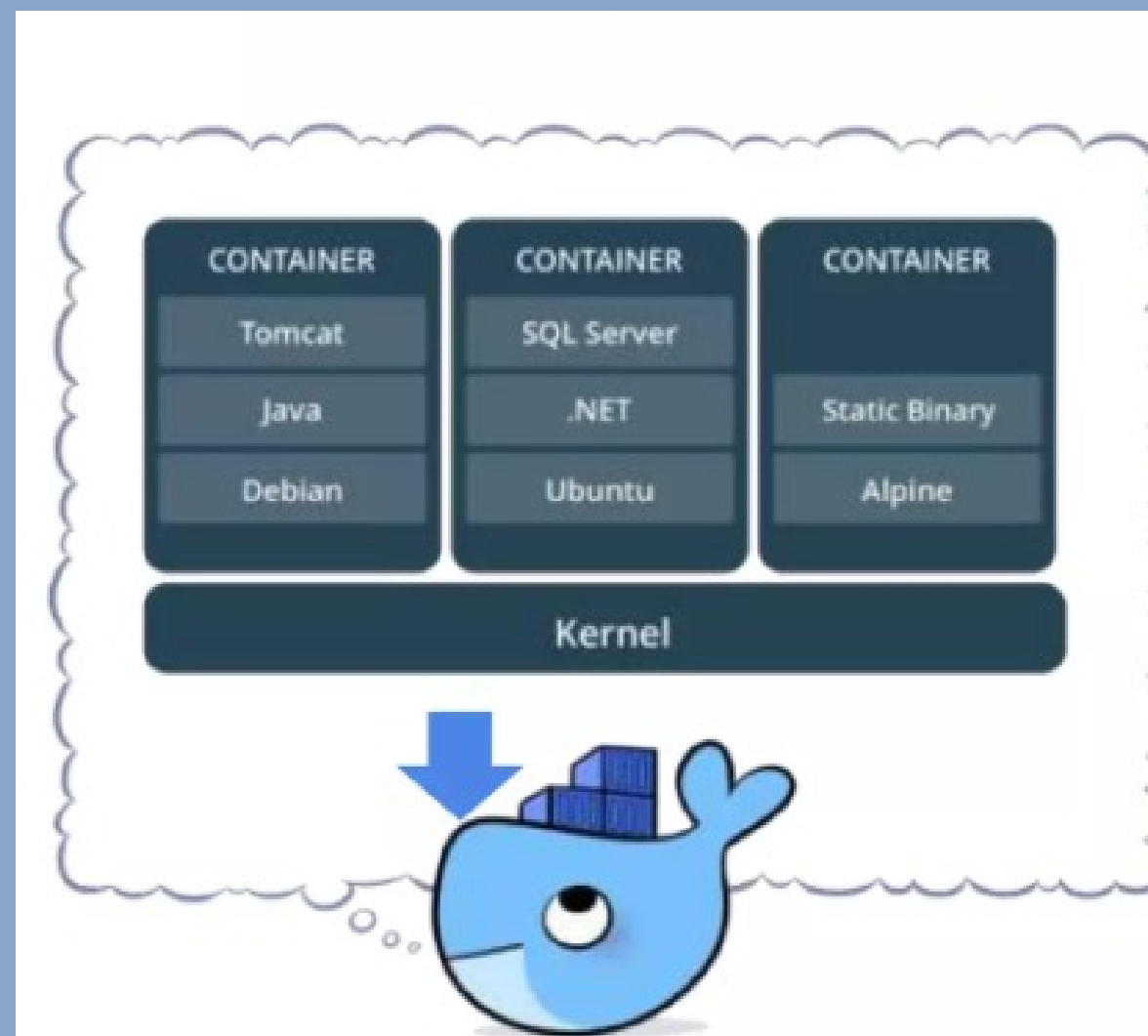
Docker Workflow



Docker Images & Containers



Docker images are templates used to create Docker containers, containing all the necessary dependencies, configurations, and code required to run an application.



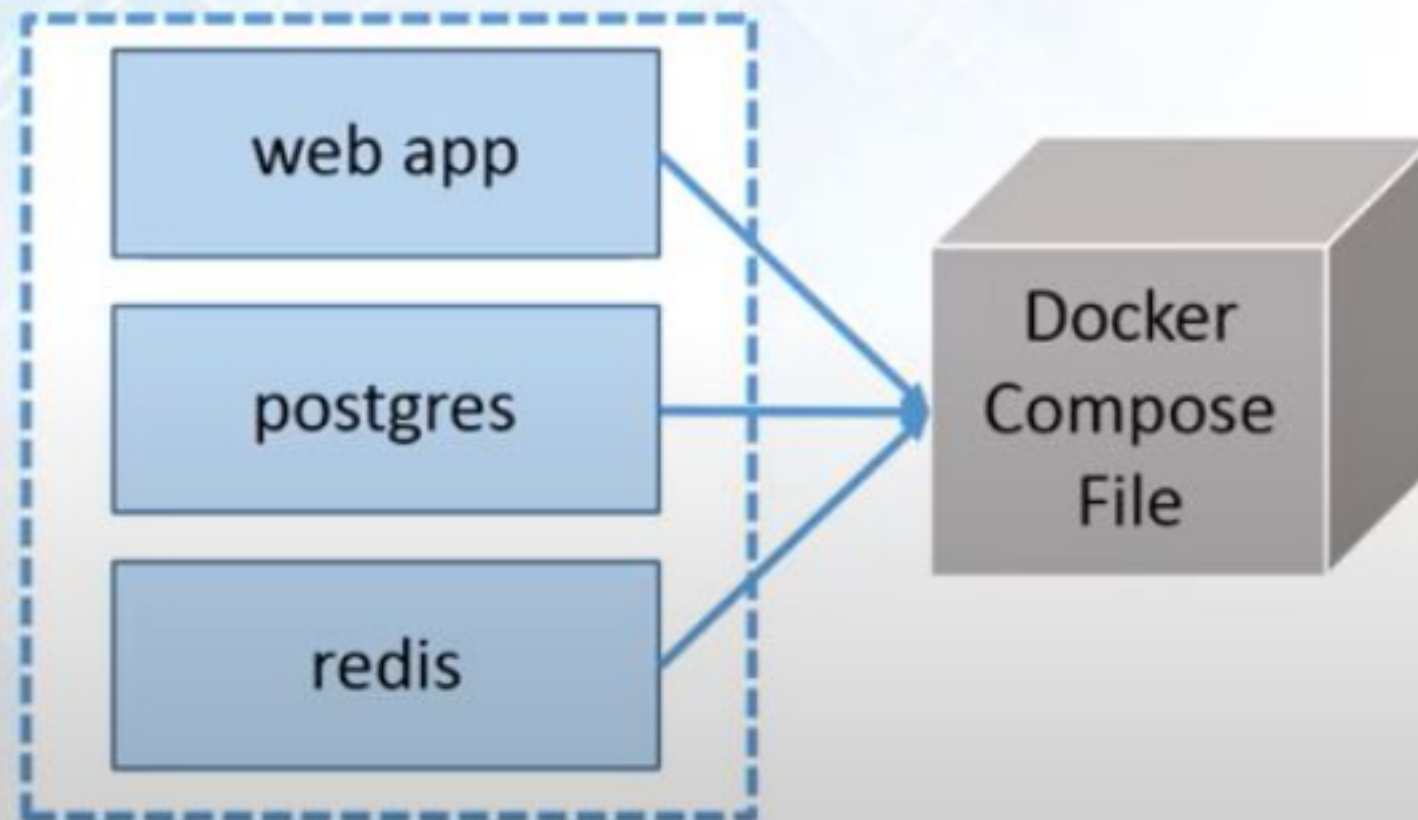
- Standardized packaging for software and dependencies
- Isolate apps from each other
- Share the same OS kernel
- Works with all major Linux and Windows Server

Docker Compose



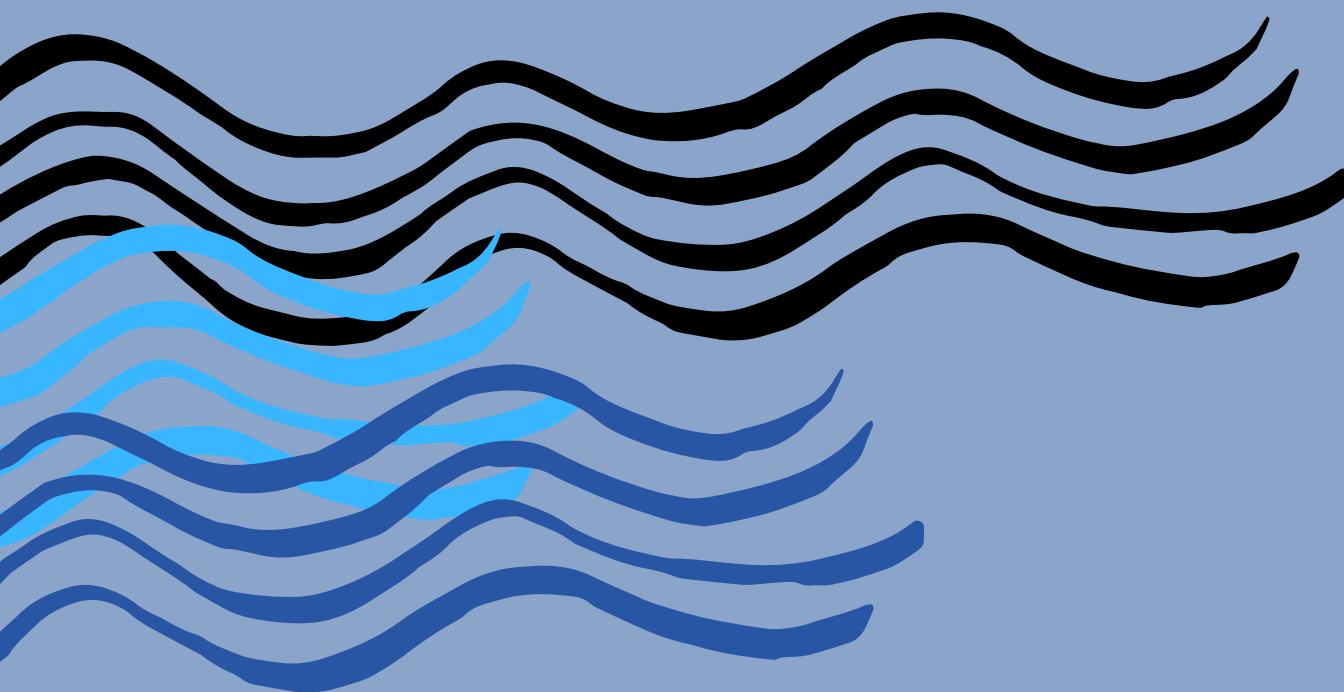
Docker Compose makes it easier to configure and run applications made up of multiple containers. For the example: imagine being able to define three containers—one running a web app, another running postgres, and a third running redis—all in one YAML file and then running those three connected containers with a single command.

Containers



You can run these three containers with a single command

Benefits of Docker



Efficiently Management of Multi-Cloud
Environments

Speed and Agility

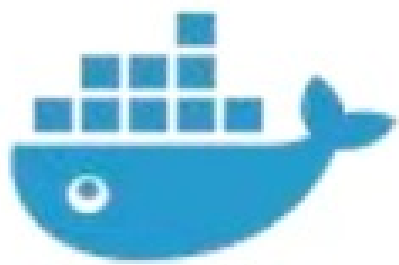
Consistent Environment

Optimized Costs

Security



Incredible adoption in just 4 years



14M

Docker
Hosts



900K

Docker
apps



77K%

Growth in
Docker job
listings



12B

Image pulls
Over 390K%
Growth



3300

Project
Contributors



Thank You