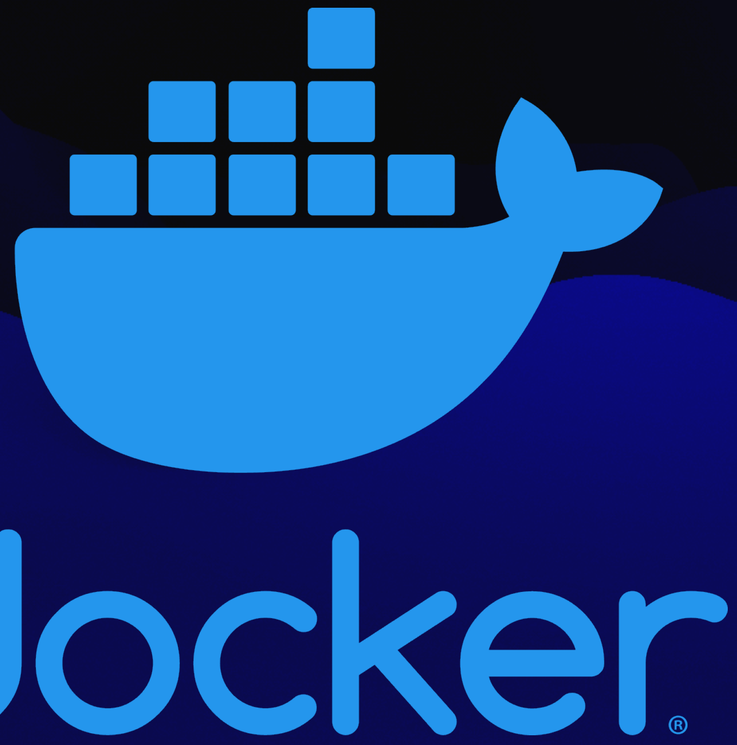
Docker Workshop



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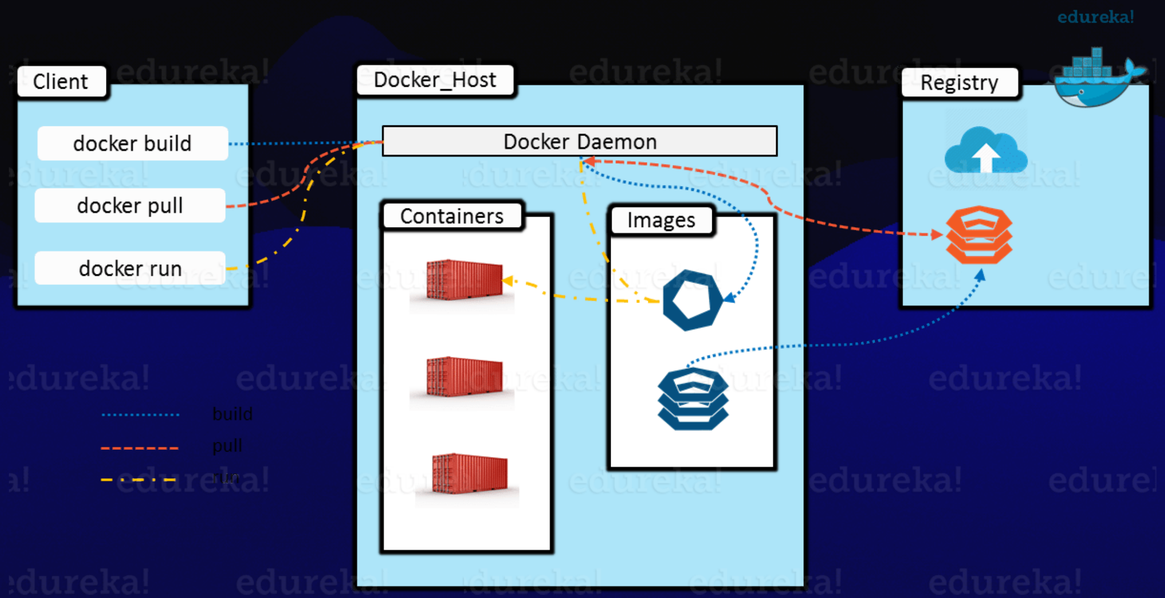
What is Docker

- Docker is an open-source platform for automating application deployment using containers.
- Containers are lightweight, portable, and isolated units that package applications and their dependencies.
- Docker provides efficiency, portability, and enhanced security, making it essential for seamless application deployment and scaling across different environments.



Why use docker

Why Use Docker?

• Deployment is fast due to implementation of union mounting and copy on write

• If Docker is installed, your image can be downloaded or created and then run (so long as arch makes sense)

• Isolating components of environments that you want to

What are Images

- To create a Docker image, you use a script called a Dockerfile. A Dockerfile is a text document that contains instructions for building a Docker image. It specifies the base image, the application code, dependencies, and other configurations necessary to run the application.
- You can also use prebuilt images made for docker

What are containers

- Containers are lightweight and portable
- They package applications and their dependencies into a single unit.
- Lightweight compared to virtual machines, as they share the host OS kernel.

Installation

- Homebrew Mac - ***brew cask install docker***
- Docker Desktop - ***https://docs.docker.com/get-docker/***

Test to see if Docker install works

$ docker run hello-world

$ docker ps -command shows you all containers that are currently running.

$ docker inspect - gives information about the container

Docker example

Install zip from discord

MAKE SURE DOCKER DESKTOP IS RUNNING

Dockerfile should be pre built but you can mess with it to add different dependencies

Build example container

docker build -t my-app .

Run example container

docker run -it my-app