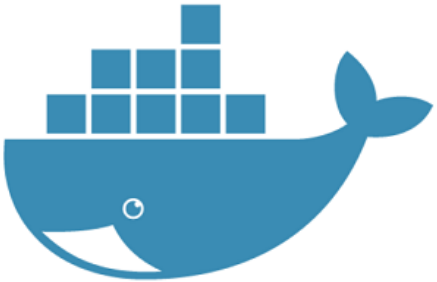

Docker for Beginners

Day 2 – Installation and Operations

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Docker Components

Docker Daemon

- Docker daemon (dockerd) listens for Docker API requests and manages Docker objects such as images, containers, networks, and volumes

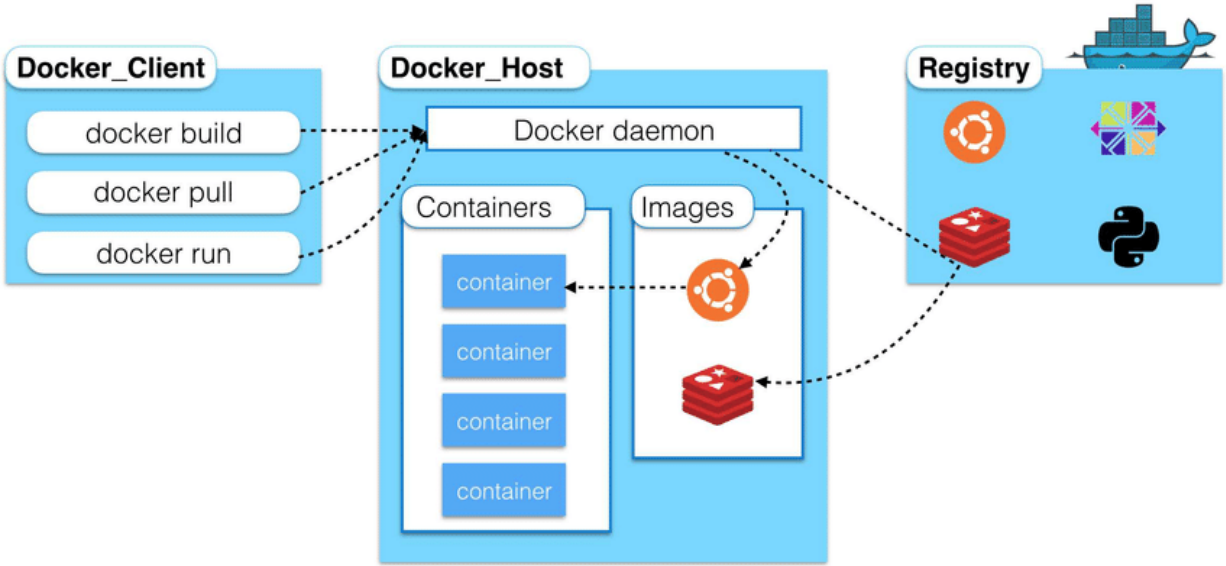
Docker Client

- Docker command uses the Docker API. The Docker client can communicate with more than one daemon.

Docker Registry

- A Docker *registry* stores Docker images.
- Docker Hub is a public registry that anyone can use, and Docker is configured to look for images on Docker Hub by default.
- You can even run your own private registry.

Docker Components



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Docker Installation

Requirements

- Only runs in 64bits CPU (32 bits ports for IoT)
- Kernel >= 3.8 (user namespace)

Official Reference: https://docs.docker.com/install/

```
$ sudo apt-get update
$ sudo apt-get install \
    apt-transport-https \
    ca-certificates \
    curl \
    gnupg-agent \
    software-properties-common
$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
$ sudo apt-get update
$ sudo apt-get install docker-ce docker-ce-cli containerd.io
```

Docker Installation

Convenience Script

```
$ curl -fsSL https://get.docker.com/ | sh
```

- Requires root or sudo privileges to run.
- The scripts install all dependencies and recommendations of the package manager without asking for confirmation
- Installs the latest Docker version that is released in the “edge” channel.
- Do not use the convenience script if Docker has already been installed on the host machine using another mechanism.

Docker Installation

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Docker Operation

Basic Commands

$ docker **create** —Create a container from an image.

$ docker **start** —Start an existing container.

$ docker **run** — Create a new container and start it.

$ docker **pause/unpause** - Pause all processes within one or more containers

$ docker **ps** —List running containers.

$ docker **stats** - Display a live stream of container(s) resource usage statistics

$ docker **inspect**—See lots of info about a container.

$ docker **logs**—Print logs.

$ docker **stop**—Gracefully stop running container.

$ docker **kill** —Stop main process in container abruptly.

$ docker **rm**— Delete a stopped container.

Docker Operation

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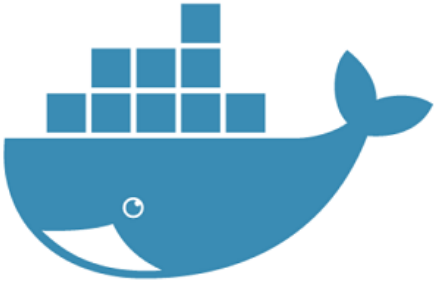
See you tomorrow…



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Thank You