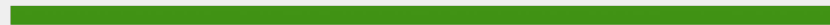
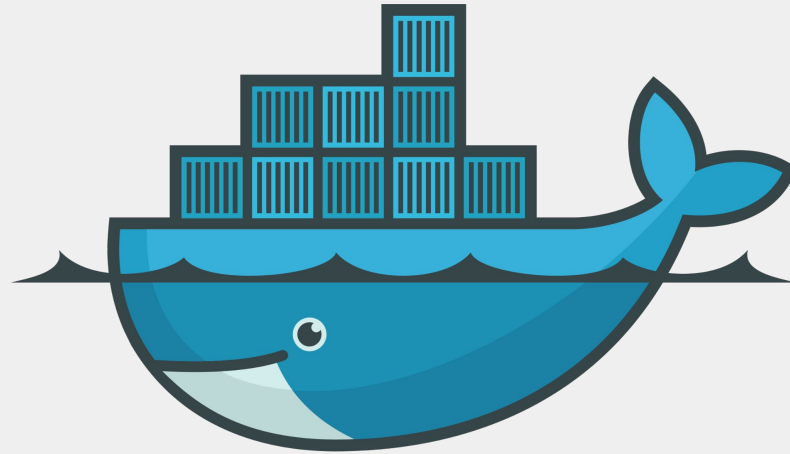


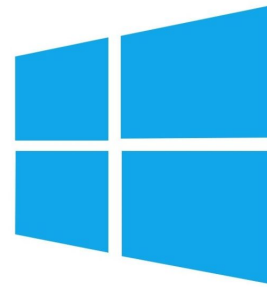
**IoT CPP**





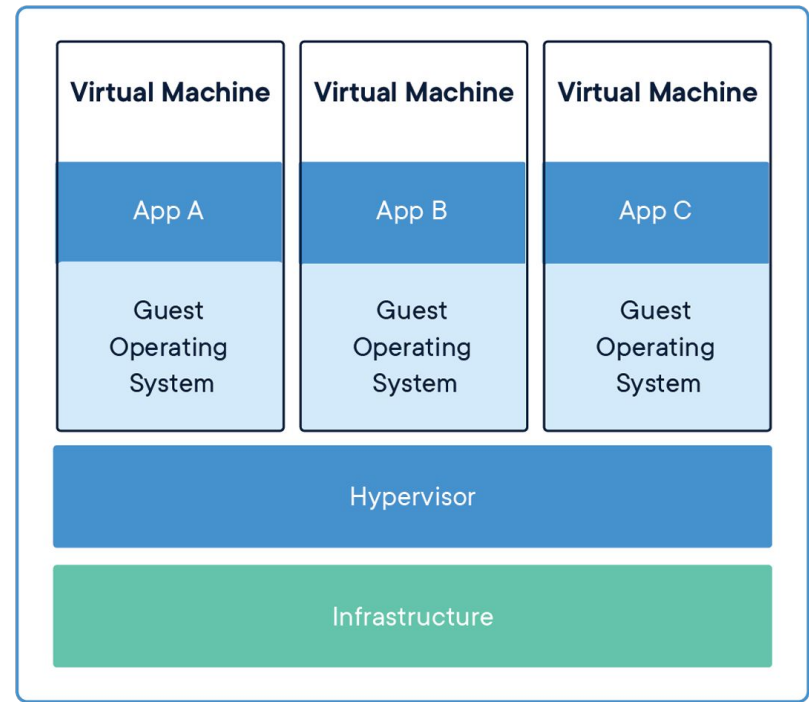
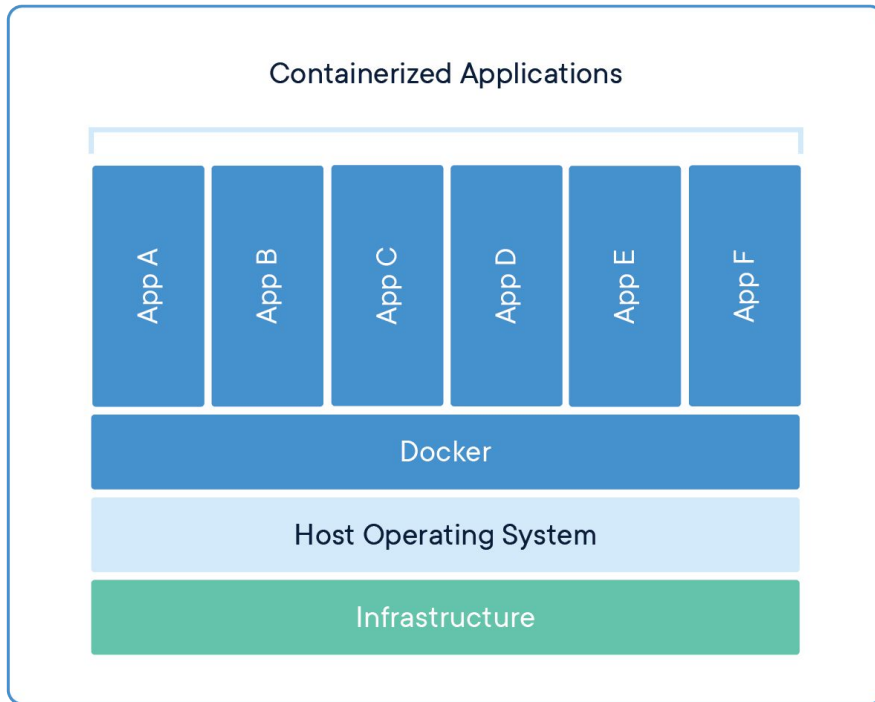
docker

[@ahmadv](https://twitter.com/ahmadv)



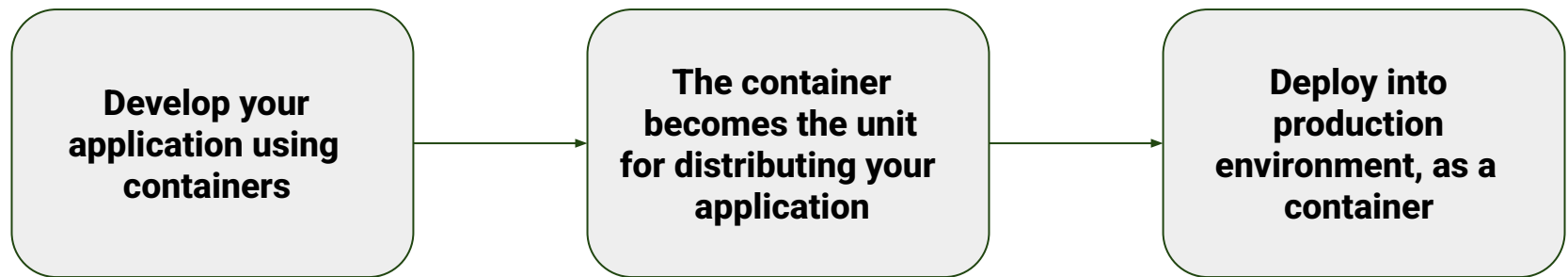
Microsoft  
Hyper-V

vmware<sup>®</sup>  
by **Broadcom**



# **Use containers to Build, Share and Run your applications**

# Application Lifecycle with Docker Platform

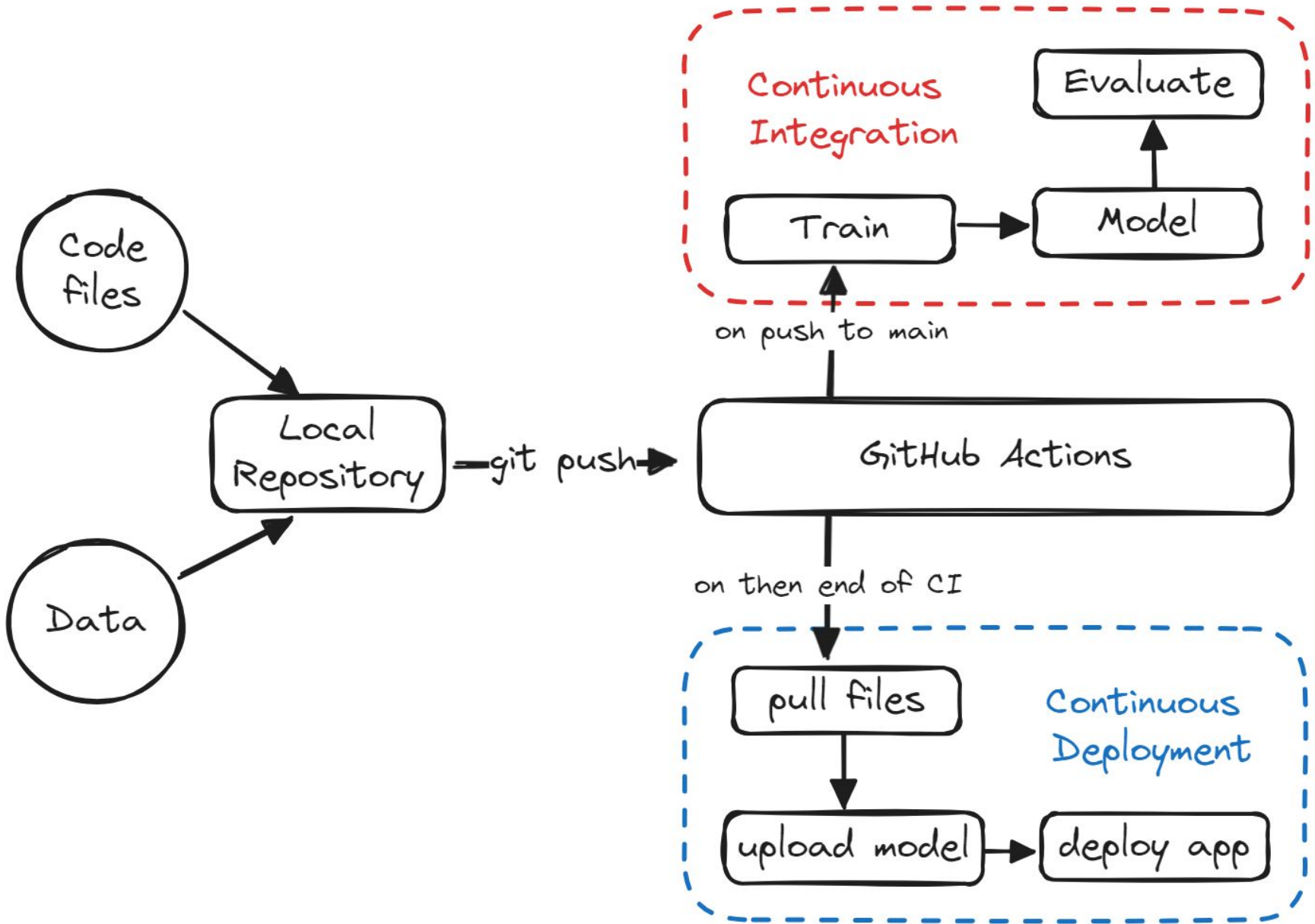


# What can I use Docker for?

**Containers are great for continuous integration and continuous delivery (CI/CD) workflows.**

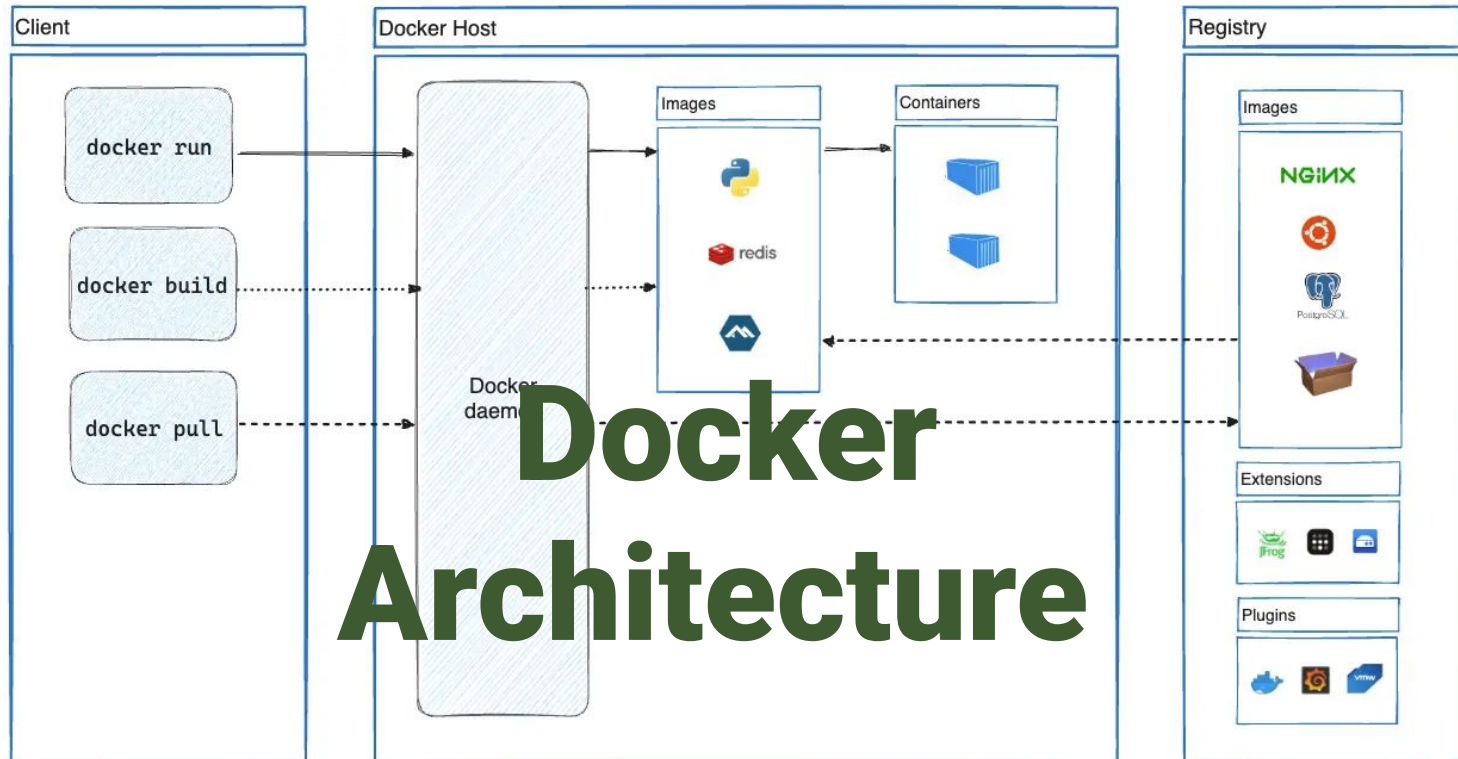
## Usage Scenario:

- **Developers write code locally and share their work with their colleagues using Docker containers.**
- **They use Docker to push their applications into a test environment and run automated and manual tests.**
- **When developers find bugs, they can fix them in the development environment and redeploy them to the test environment for testing and validation.**
- **When testing is complete, getting the fix to the customer is as simple as pushing the updated image to the production environment.**

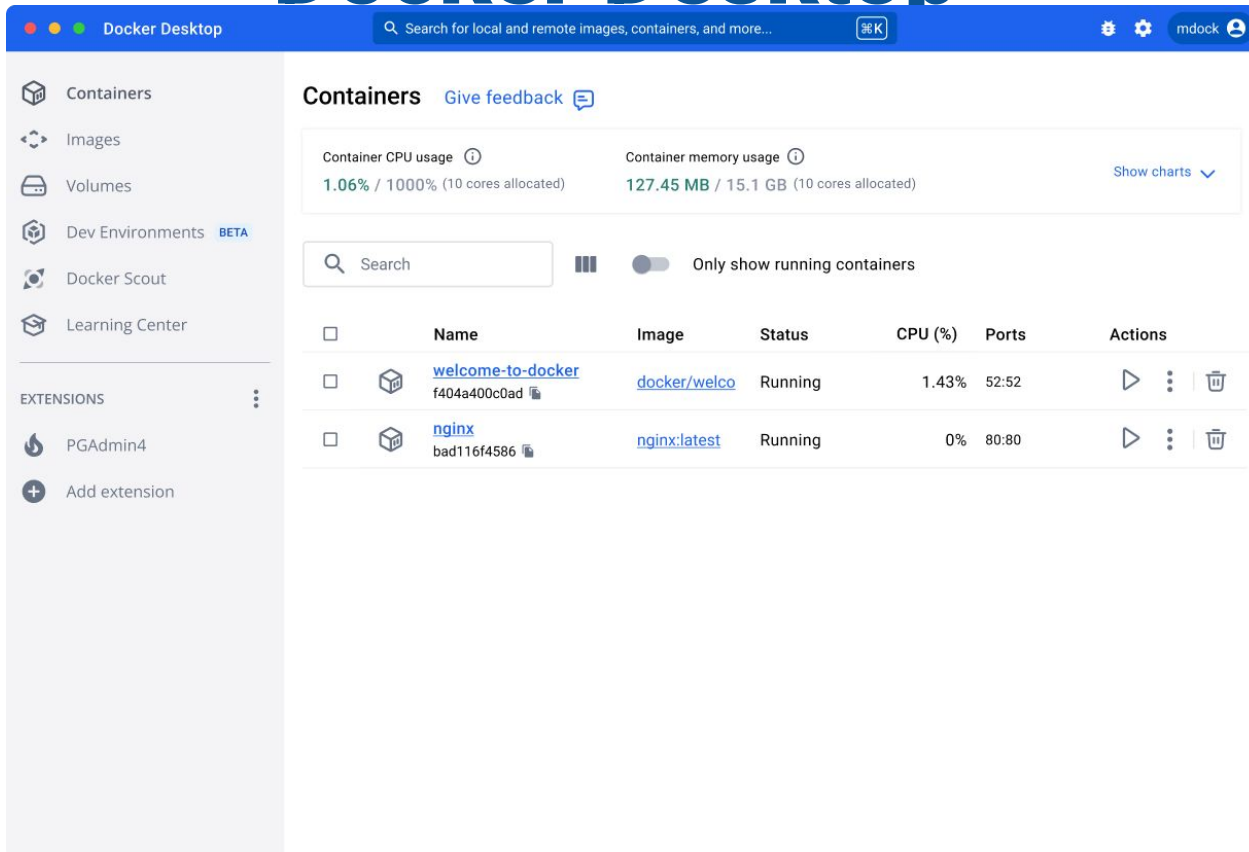


# Responsive Deployment and Scaling

**Docker's container-based platform allows for highly portable workloads. Docker containers can run on a developer's local laptop, on physical or virtual machines in a data center, on cloud providers, or in a mixture of environments.**



# Docker Desktop



The screenshot shows the Docker Desktop application window. The title bar reads "Docker Desktop" and includes a search bar with the text "Search for local and remote images, containers, and more...". The left sidebar contains navigation options: Containers, Images, Volumes, Dev Environments (marked BETA), Docker Scout, and Learning Center. Below the sidebar is an "EXTENSIONS" section with "PGAdmin4" and an "Add extension" button.

The main content area is titled "Containers" and includes a "Give feedback" link. It displays two summary cards: "Container CPU usage" at 1.06% / 1000% (10 cores allocated) and "Container memory usage" at 127.45 MB / 15.1 GB (10 cores allocated). A "Show charts" link is also present.

Below the summary cards is a search bar and a toggle switch for "Only show running containers". The main area contains a table of containers:

<input type="checkbox"/>	Name	Image	Status	CPU (%)	Ports	Actions
<input type="checkbox"/>	<a href="#">welcome-to-docker</a> f404a400c0ad	<a href="#">docker/welco</a>	Running	1.43%	52:52	▶ ⋮ 🗑️
<input type="checkbox"/>	<a href="#">nginx</a> bad116f4586	<a href="#">nginx:latest</a>	Running	0%	80:80	▶ ⋮ 🗑️

# Docker Image

A read-only template with instructions for creating a Docker container

```
FROM ubuntu:22.04
```

```
RUN apt update && apt upgrade  
-y
```

```
RUN apt install -y git  
python3-pip curl
```

```
WORKDIR /home
```

```
RUN git clone  
https://github.com/example/ex  
ample.git
```

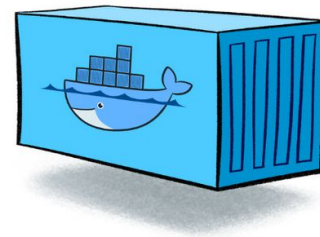
```
WORKDIR /home/example
```

```
RUN pip install  
example_package
```

```
CMD [ "python3",  
"./example/main.py" ]
```

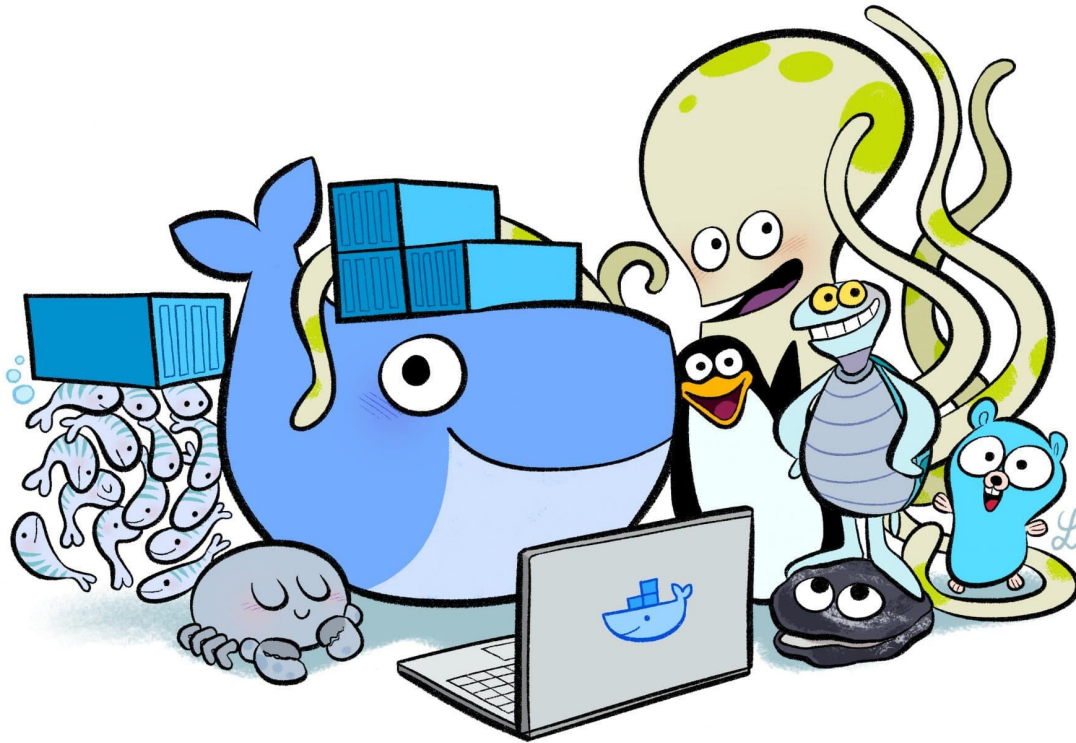
# Docker Container

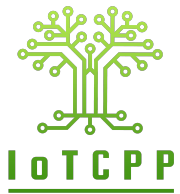
A container is a runnable instance  
of an image.



**Let's get our  
hands**

**DIRTY**





<https://docs.docker.com/>

<https://dockerme.ir/>



