

DevOps Roadmap

- ▶ What DevOps concepts and tools to learn?
- ▶ Tasks and Responsibilities

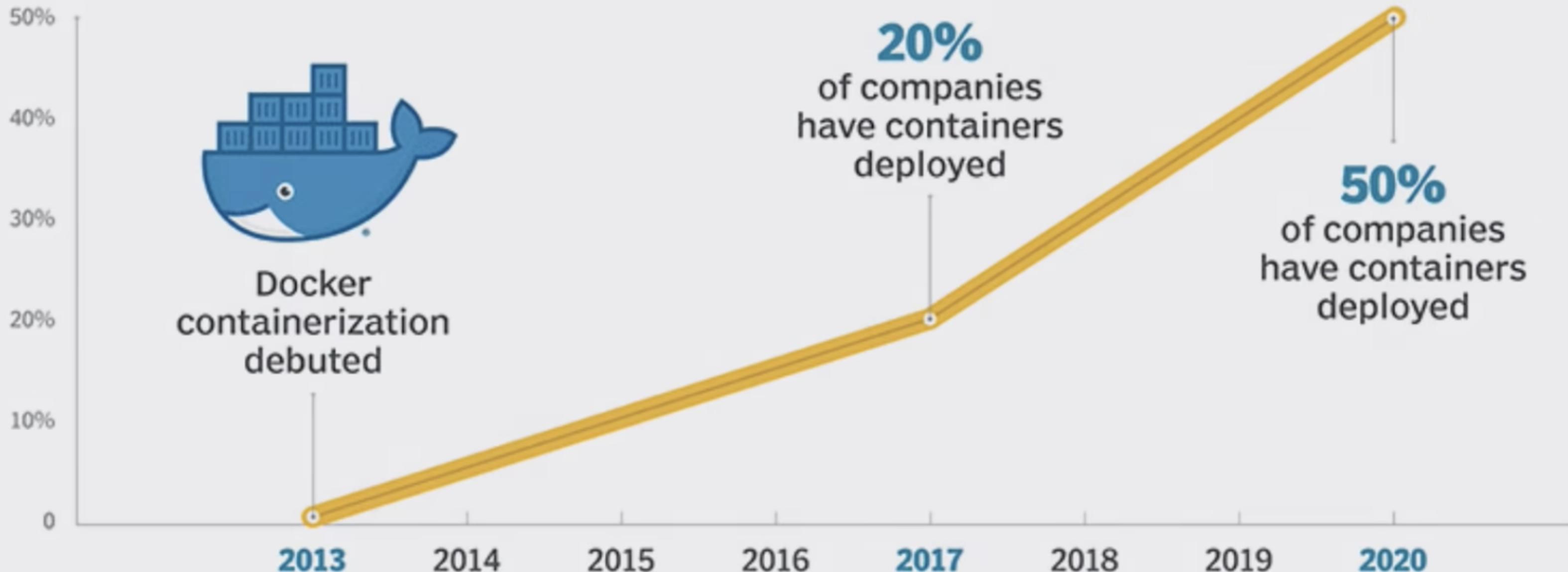


Initial Devops

- aws
 - Managing AWS IAM User Permissions Using Groups and Policies
 - <https://aws.amazon.com/certification/certified-cloud-practitioner/>
- git
 - workflow manajemen proyek yang populer, diantaranya:
 - GitFlow
 - Git Developer Workflow
 - Github Flow
 - Gitlab Flow
 - Trunk Based Development

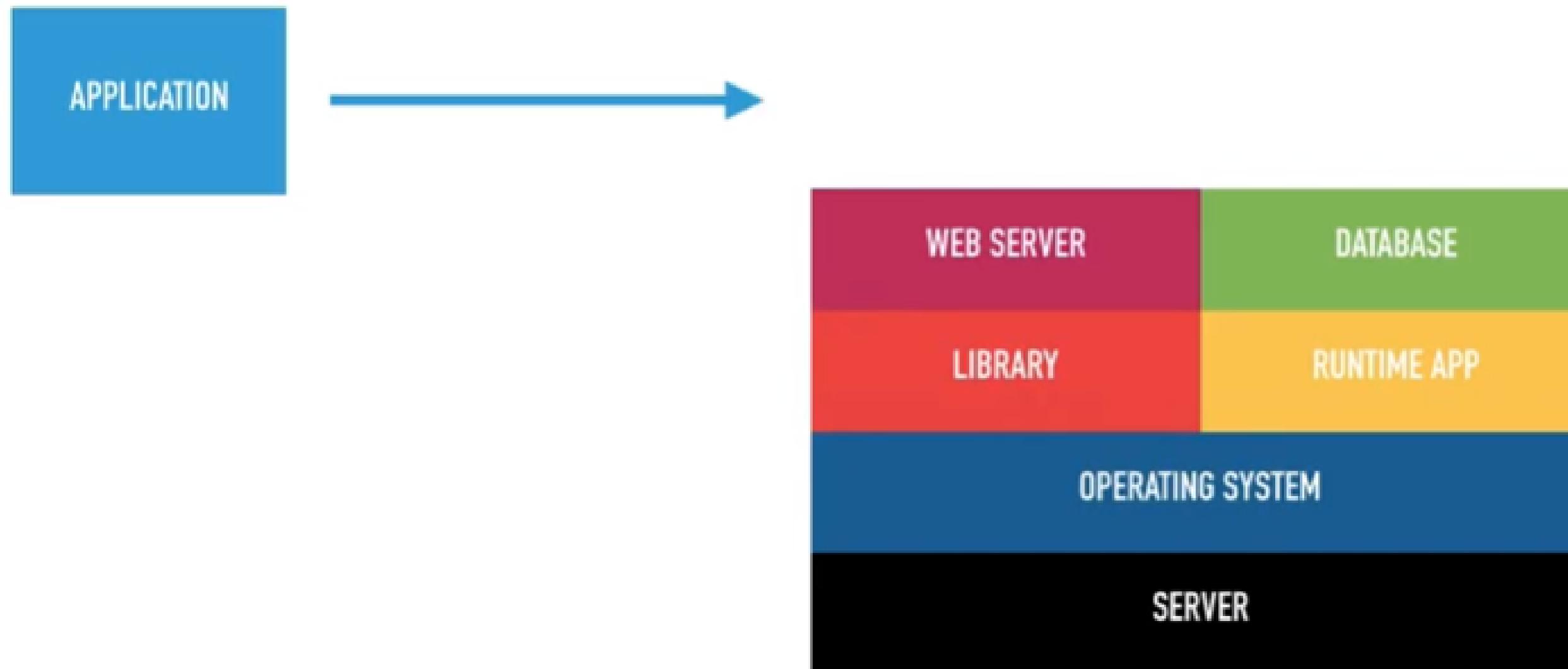
- docker
 - dockerfile
 - dockerhub
- kubernetes
- aws cli
- linux cli

Containerization timeline

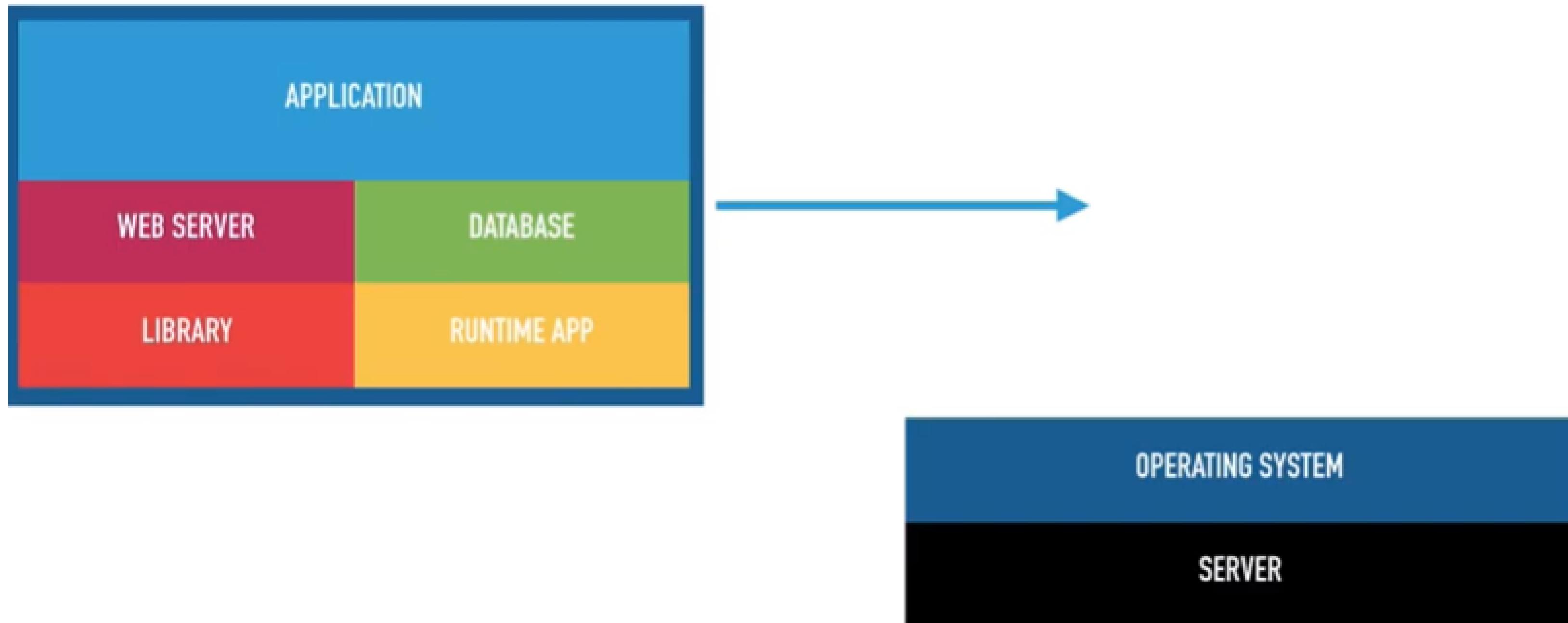


Deployment Aplikasi

DEPLOYING APPLICATION

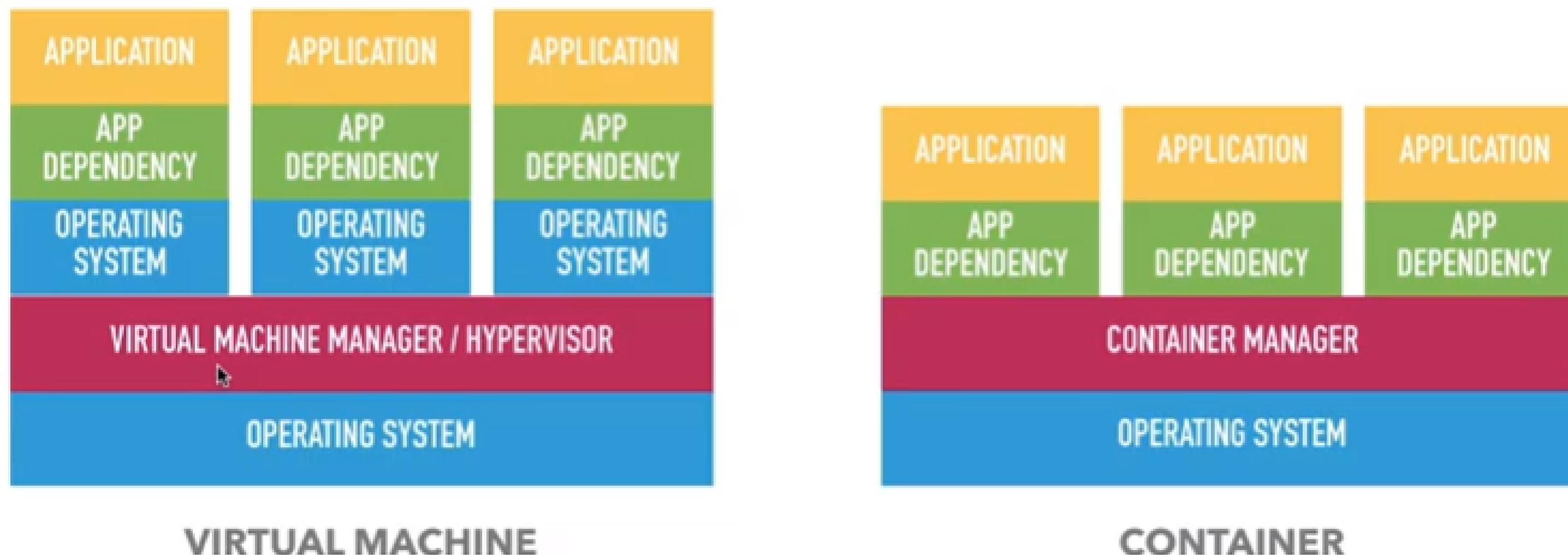


DEPLOYING APPLICATION WITH DOCKER

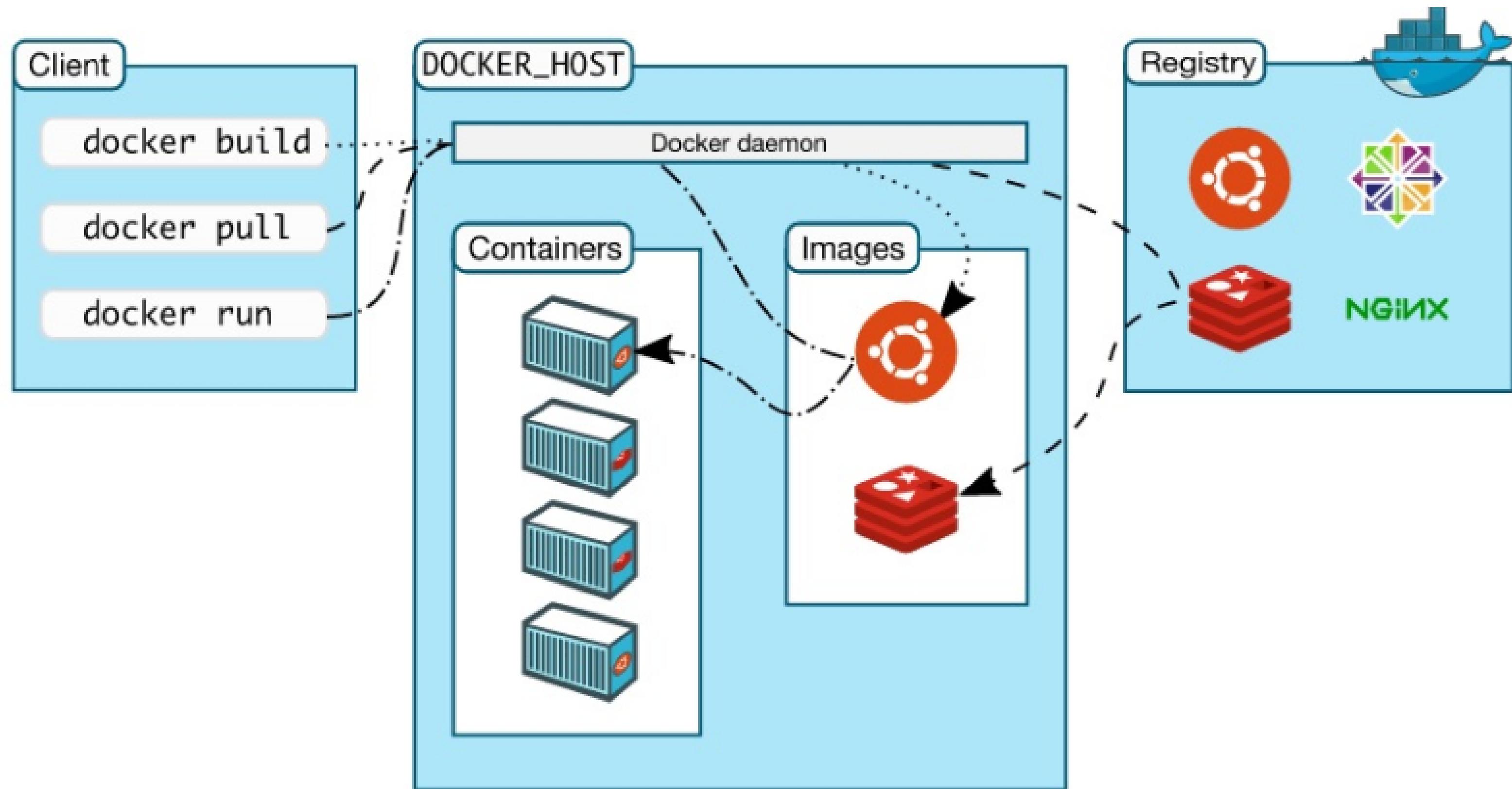


Virtual Machine VS Container

VIRTUAL MACHINE VS CONTAINER



Docker Arsitektur



DevOps between 2 main departments

DEVELOPMENT

OPERATIONS

DEVOPS

DEVELOPMENT



**Code
Repository**



How developers work



Which Git Workflow



How application is configured

DEVELOPMENT



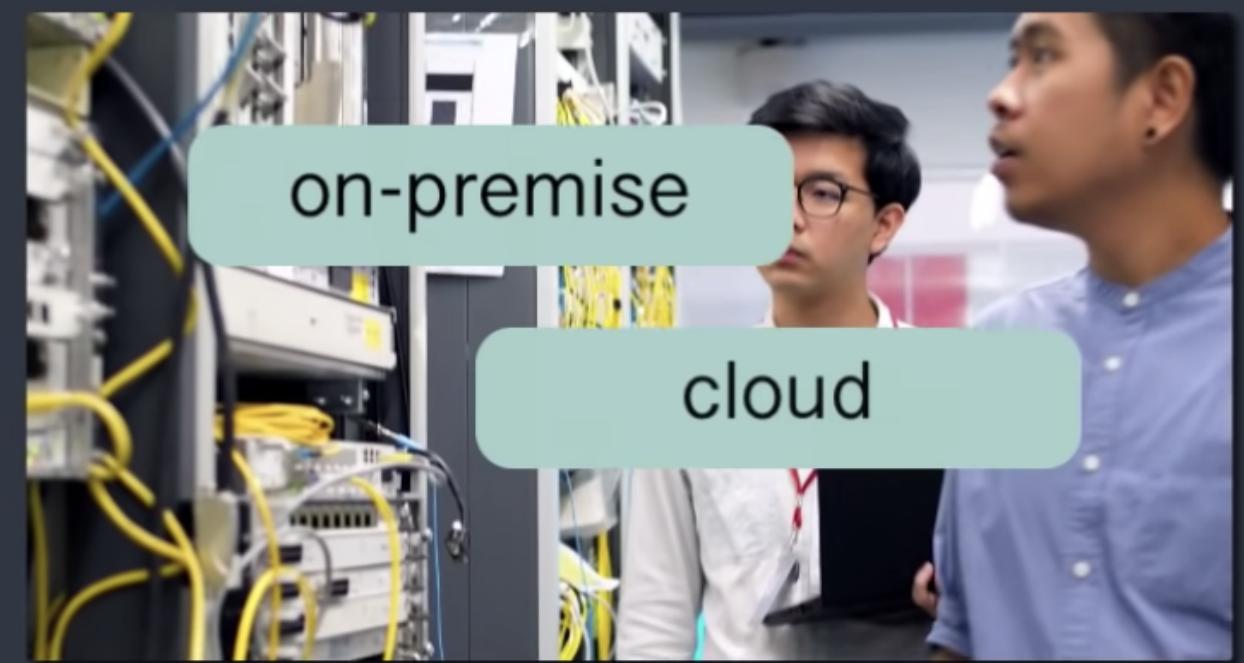
Code
Repository



OPERATIONS



Servers





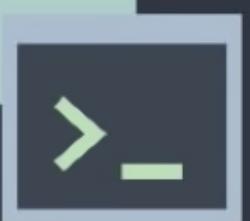
OPERATIONS



Linux Basics



comfortable using CLI



Servers

► **prepare the infrastructure**



Linux Basics



comfortable using CLI



Shell Commands



Bash Commands

<code>uname -a</code>	Show system and kernel
<code>head -n1 /etc/issue</code>	Show distribution
<code>mount</code>	Show mounted filesystems
<code>date</code>	Show system date
<code>uptime</code>	Show uptime
<code>whoami</code>	Show your username
<code>man <i>command</i></code>	Show manual for <i>command</i>

Directory Operations

<code>pwd</code>	Show current directory
<code>mkdir <i>dir</i></code>	Make directory <i>dir</i>
<code>cd <i>dir</i></code>	Change directory to <i>dir</i>
<code>cd ..</code>	Go up a directory
<code>ls</code>	List files



OPERATIONS



Linux Basics



comfortable using CLI



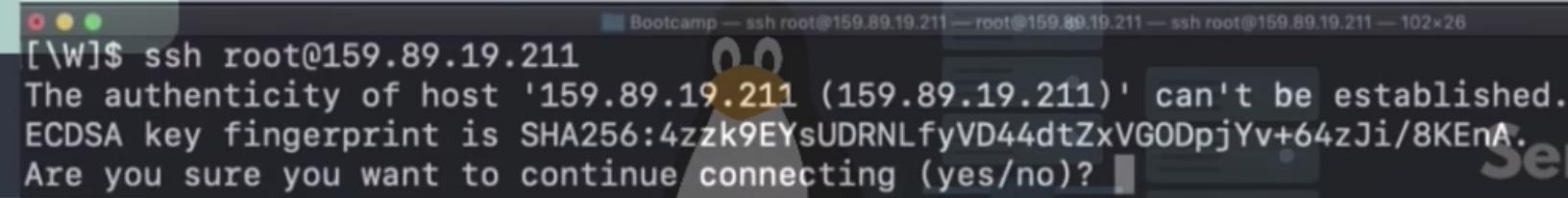
Shell Commands



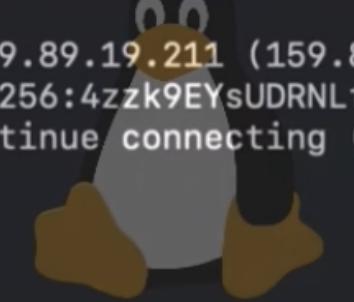
Linux File System



Server Management



```
[\W]$ ssh root@159.89.19.211
The authenticity of host '159.89.19.211 (159.89.19.211)' can't be established.
ECDSA key fingerprint is SHA256:4zzk9EYsUDRNLfyVD44dtZxVGODpjYv+64zJi/8KEnA.
Are you sure you want to continue connecting (yes/no)?
```



Servers

► **prepare the infrastructure**



SSH Key Management



0.51

Networking &

Security





Firewall, Proxy Servers



Load Balancers



HTTP/HTTPS



IP, DNS Name Resolution





DevOps vs. IT Operations



**DevOps
engineer**

- ▶ understand and know the **BASICS**
- ▶ own professions



Sys Admins



Network

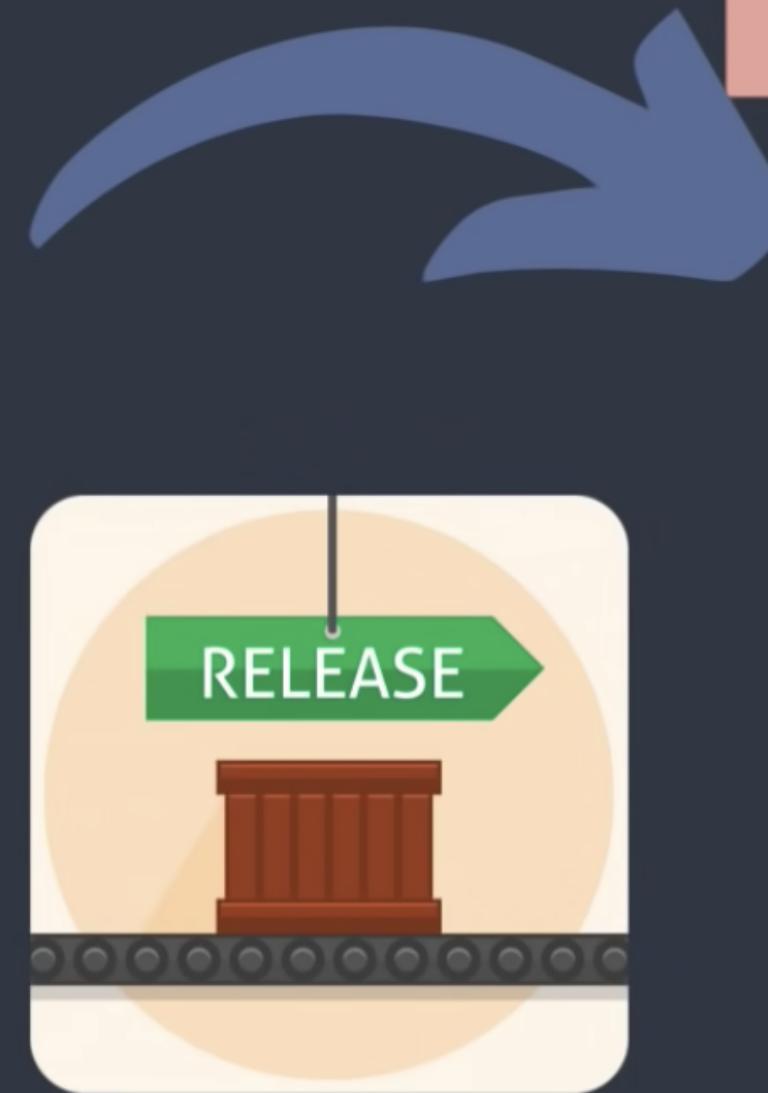


Security

DEVELOPMENT



Code
Repository



OPERATIONS



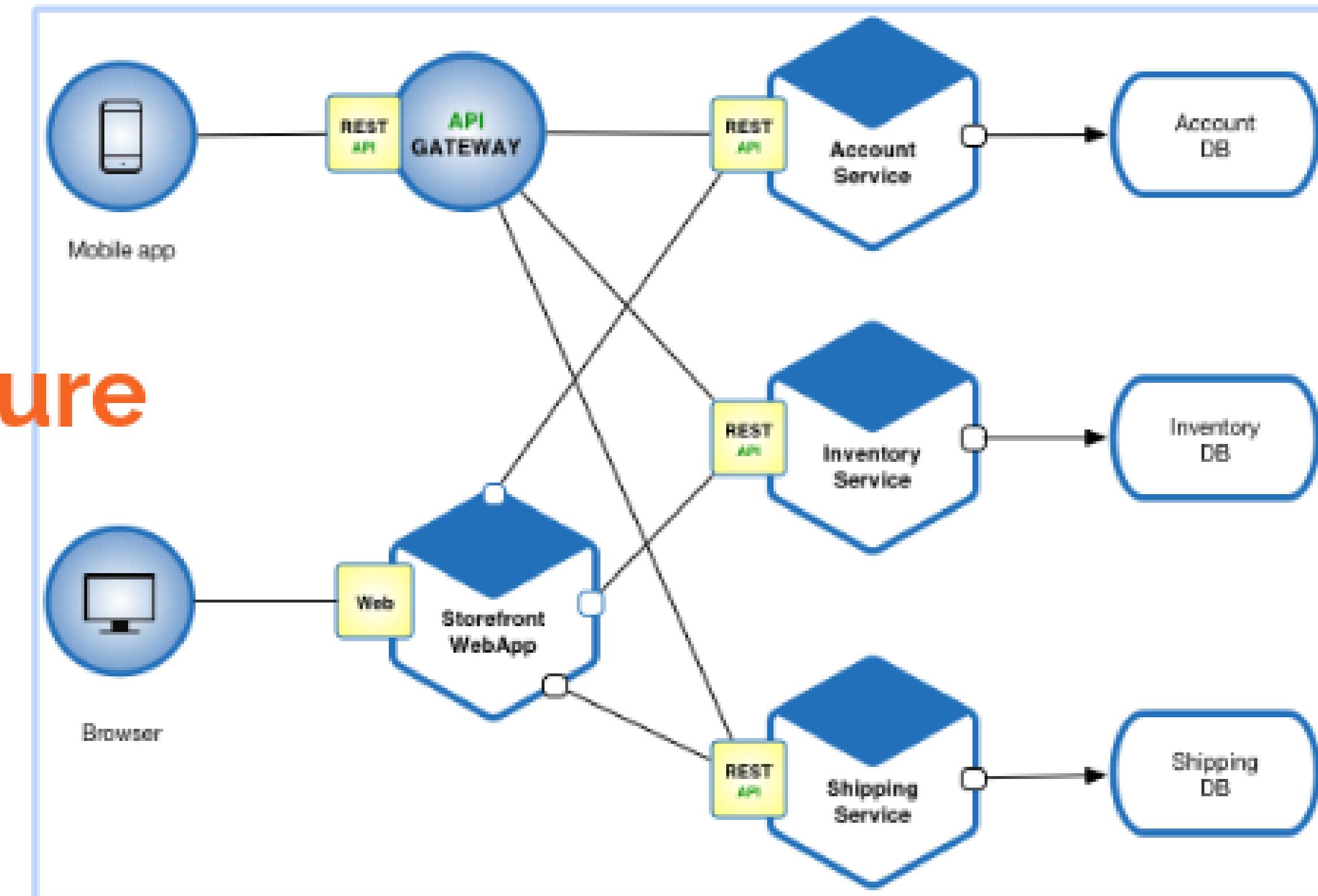
Servers

How to release the application?

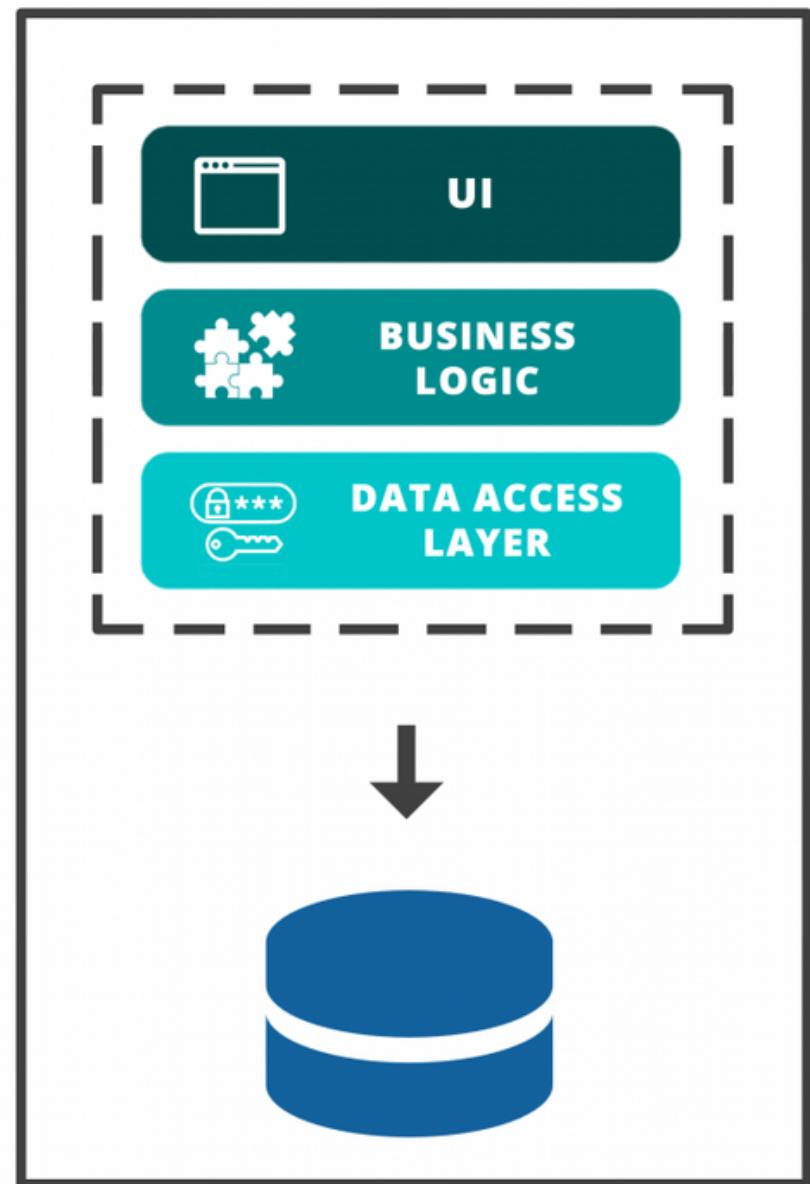
Microservices Arsitektur



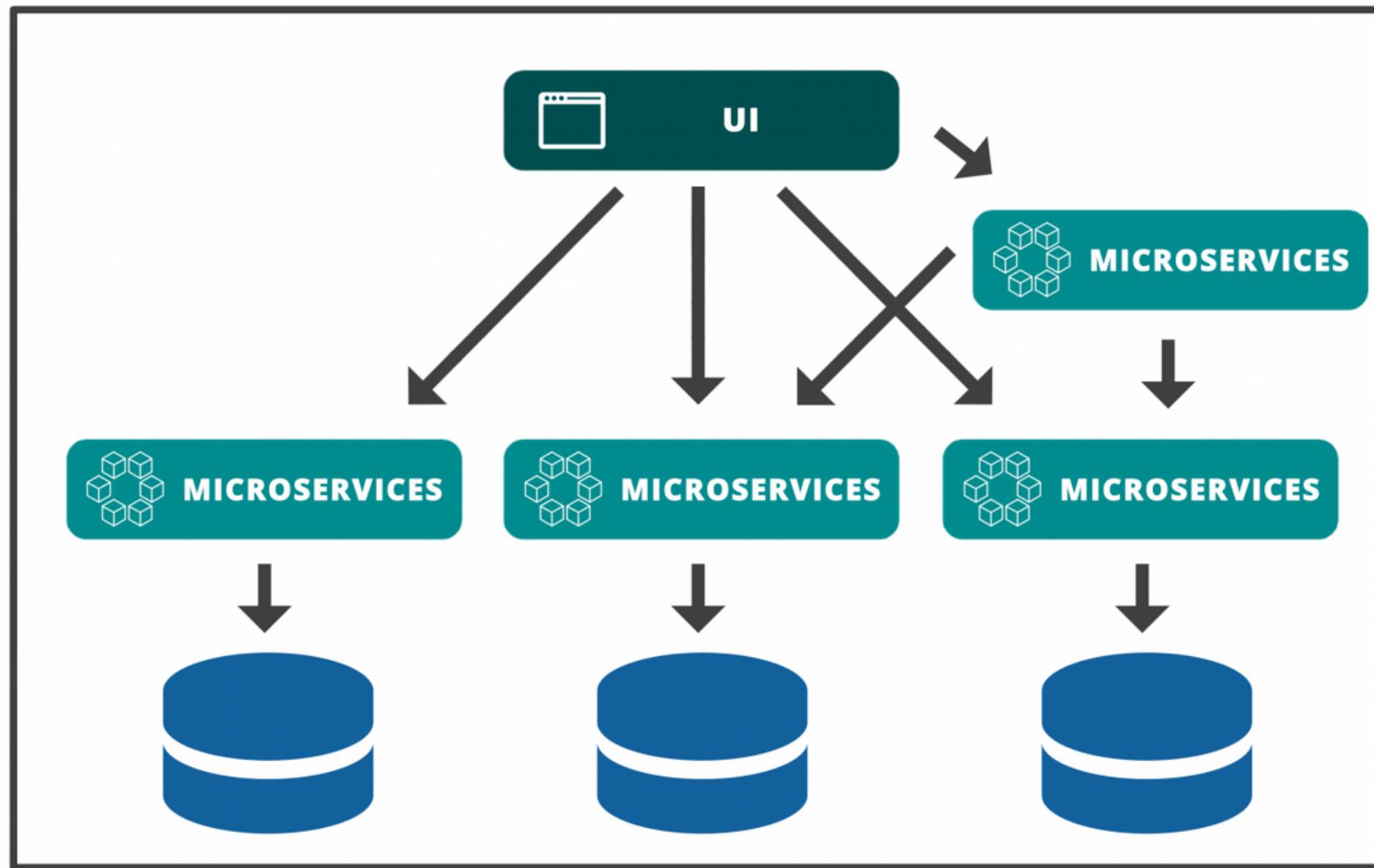
Architecture



MONOLITHIC



MICROSERVICES



VS