

Cloud & Devops

Introduction for business actors

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Outline

- 1 Devops
- 2 Microservices
- 3 Cloud

Definition

"A set of practices intended to reduce the time between committing a change to a system and the change being placed into normal production, while ensuring high quality."

[Len Bass, Ingo Weber, and Liming Zhu
from the CSIRO and the Software Engineering Institute]

Definition

A set of practices to reconcile Dev and Ops.

Definition

An extension of Agility to include Ops

Objectives

- Increase release rate
- Decrease Time to Market
- Decrease production delivery's failures
- Decrease failure effects

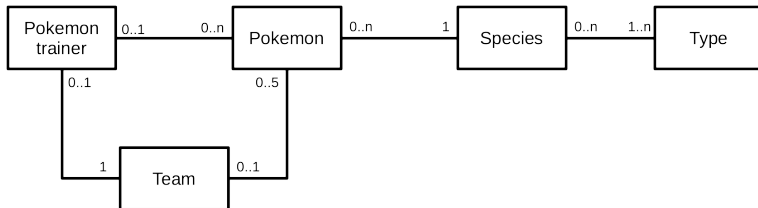
Practices

- Communicate & share information
- Be responsible & autonomous
- Test & ensure product quality
- *Done it, Run it*
- Automation
- Non-event

An example

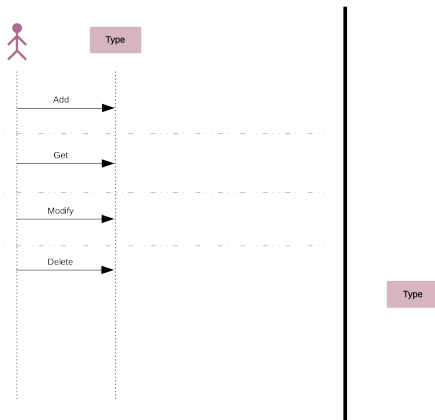
Better an example than a **definition**.

An example



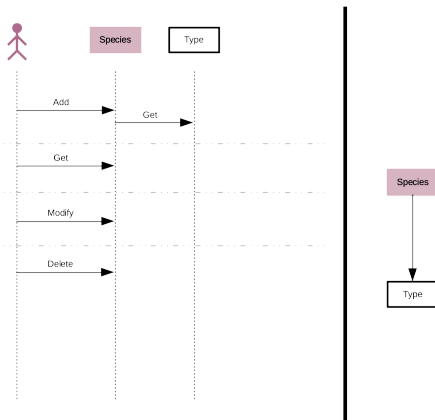
An example

Manage a pokemon type



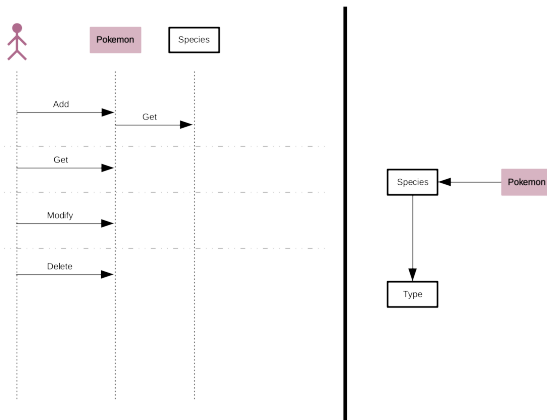
An example

Add a pokemon species



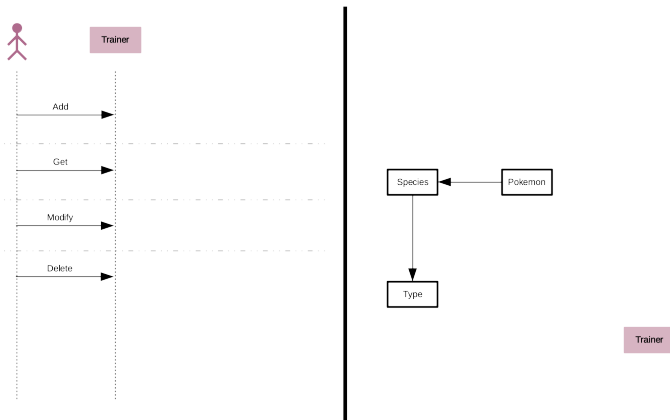
An example

Add a pokemon



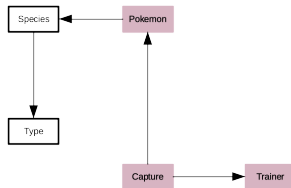
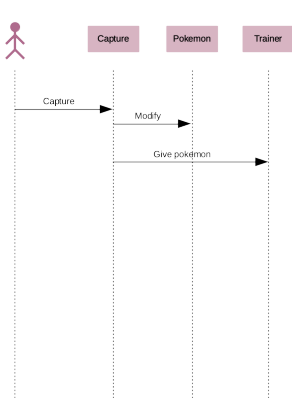
An example

Add a pokemon trainer



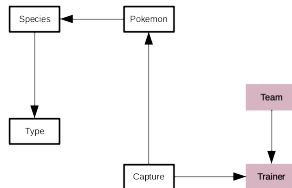
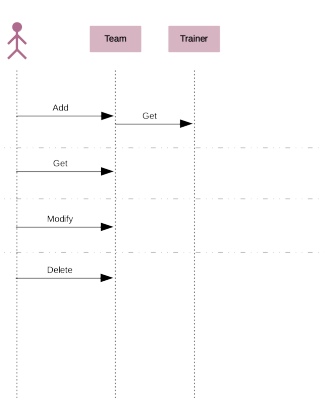
An example

Capture a pokemon

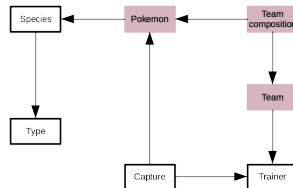
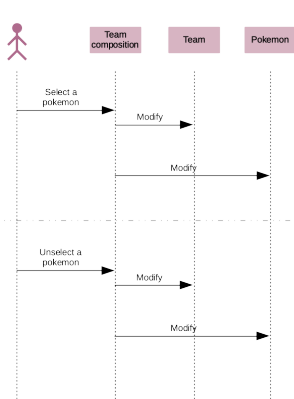


An example

Manage a pokemon team

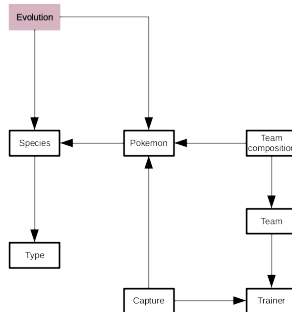
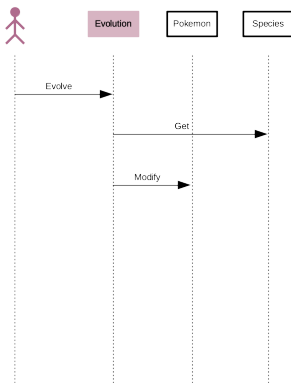


Manage a pokemon team composition



An example

Make a pokemon evolve



Requirements

- User stories aligned with components
- Minimize the number of components impacted
- Minimize the scope of each user story

Cloud definition

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- On-demand availability of computer system resources
- Coherence
- Economies of scale

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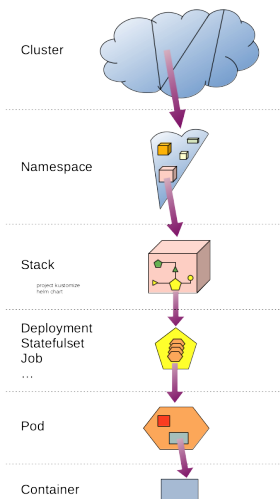
Some features

- Device and location independence
- Flexibility
- Scalability
- Reliability

What is a container?



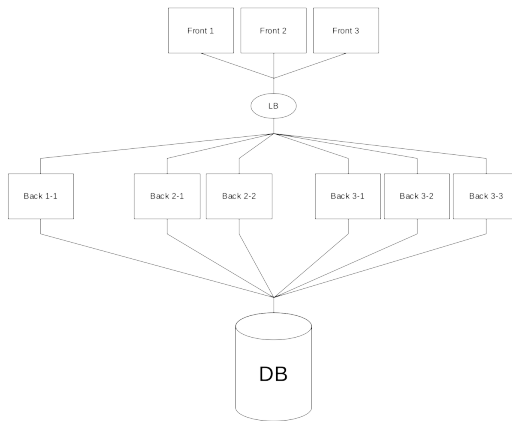
A cluster architecture



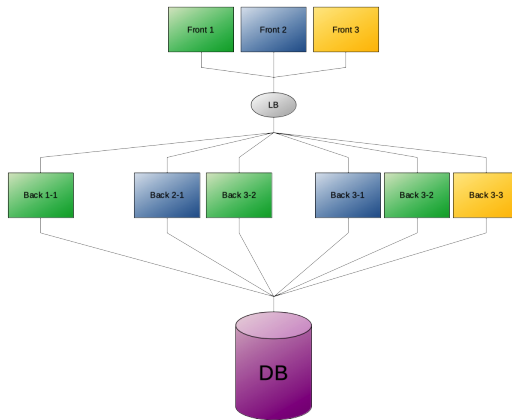
Scheduling example



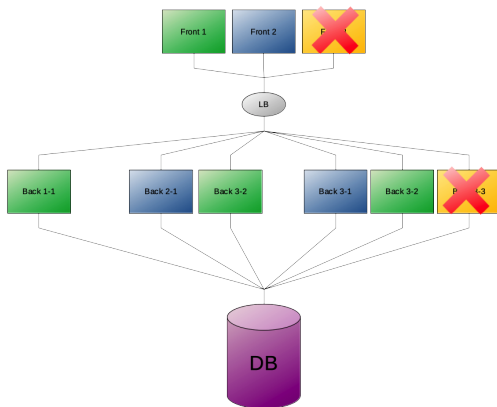
Scheduling example



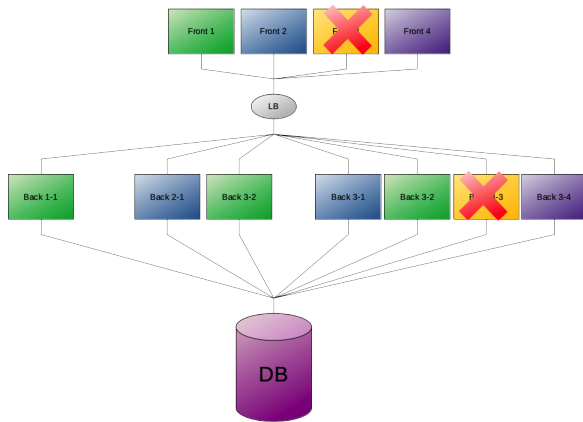
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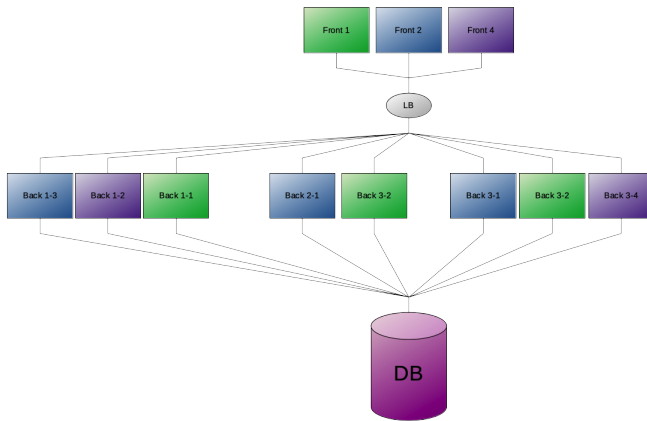
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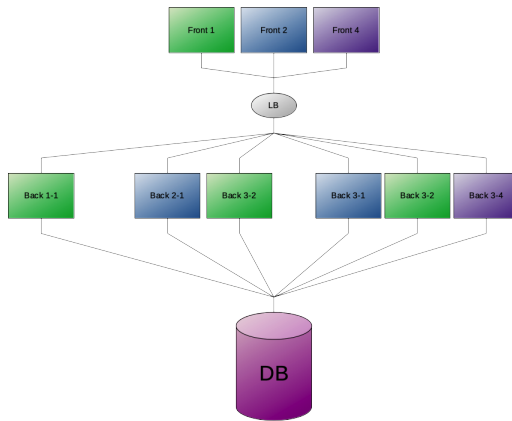
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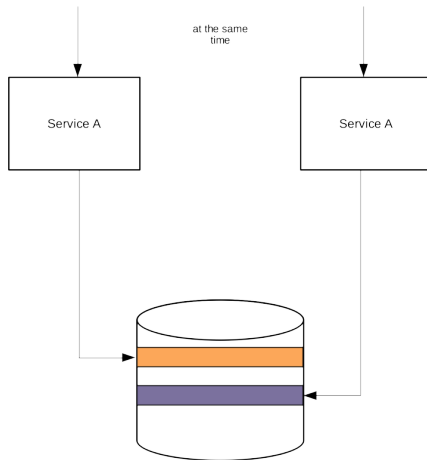
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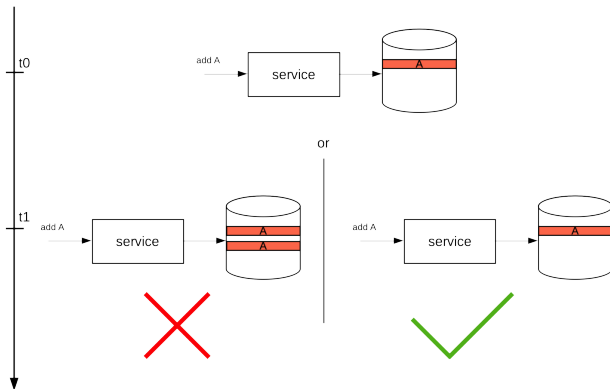
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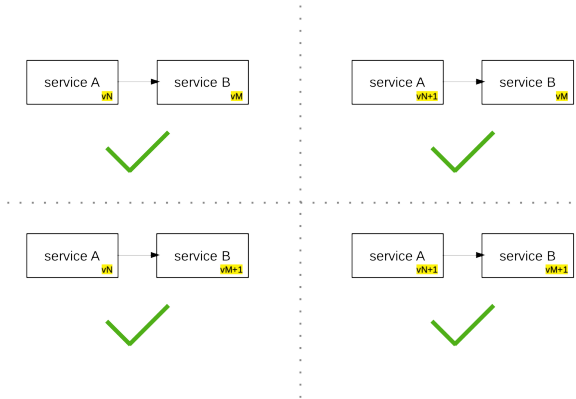
Concurrency



Idempotence



Backward compatibility



Design for failure

Anything that can go wrong will go wrong. [Murphy's law]

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Be prepared!

Questions?