Cloud & Devops

Introduction for business actors

Damien Ribeiro

Tinkou consulting

February 24, 2020

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

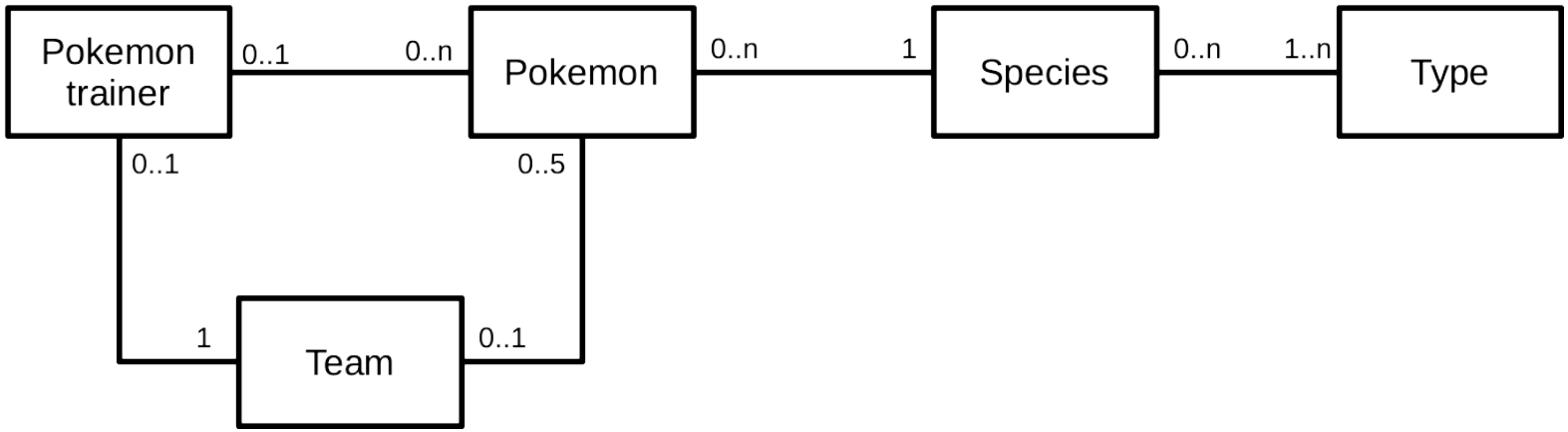
Practices

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

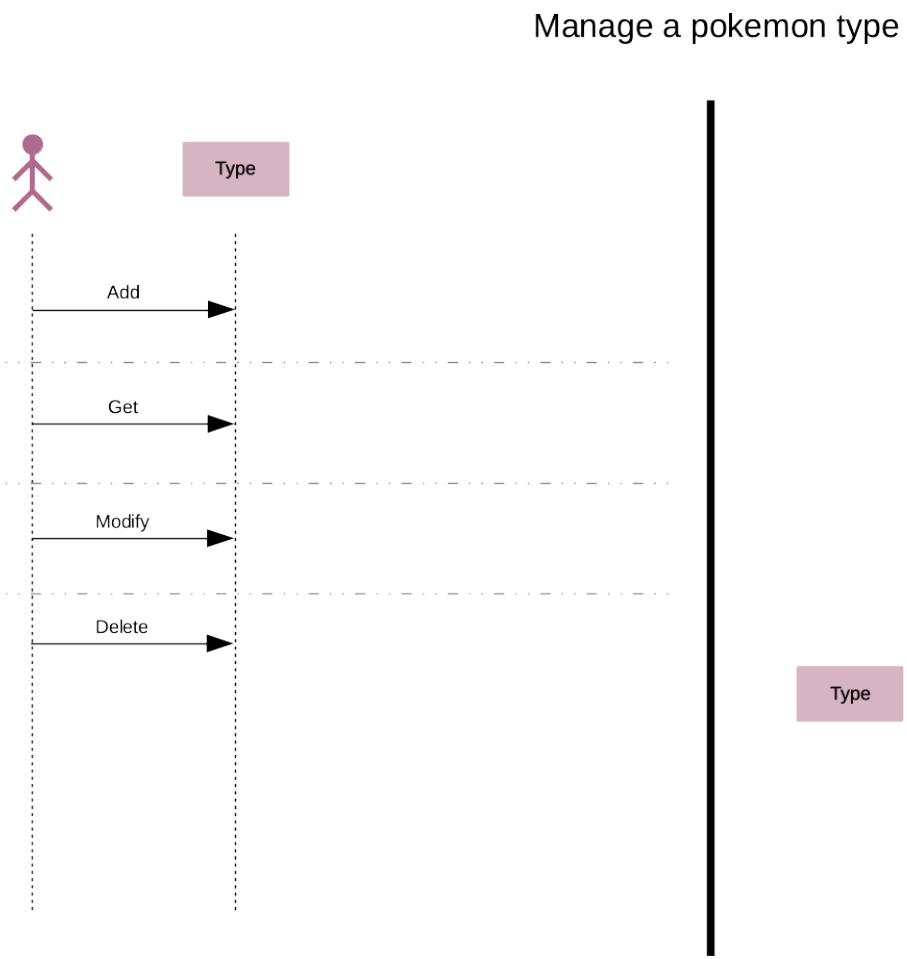
An example

Better an example than a definition.

An example

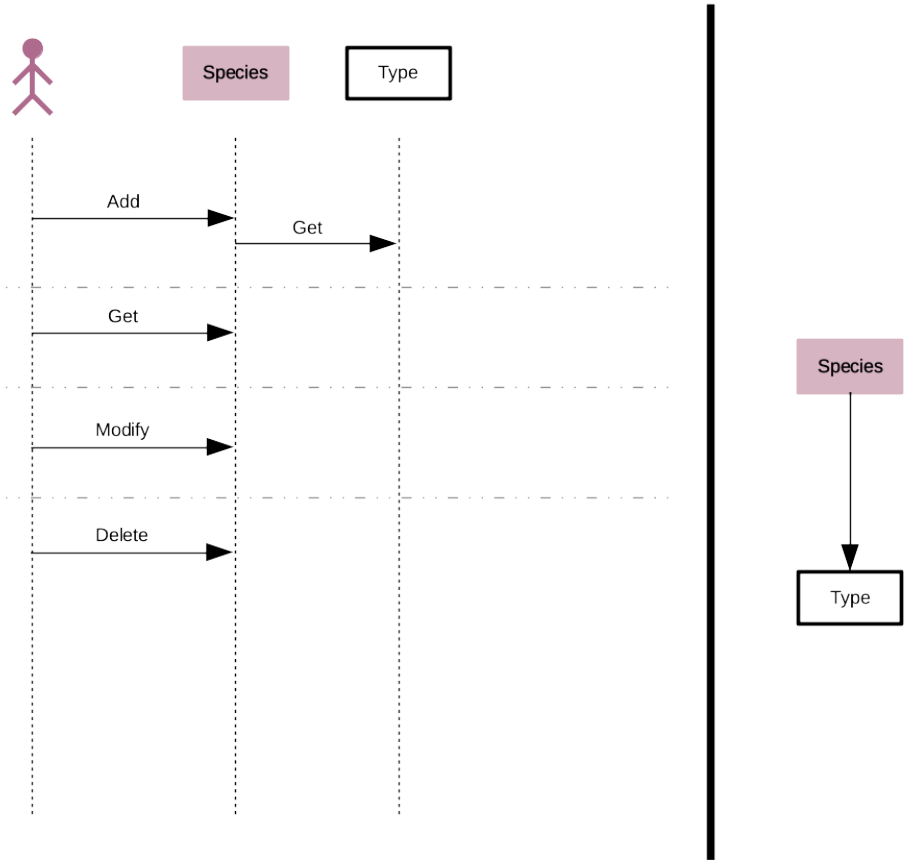

Pokemon trainer
0..1
0..n
Pokemon
0..n
1
Species
0..n
1..n
Type
0..1
0..5
1
Team
0..1

An example



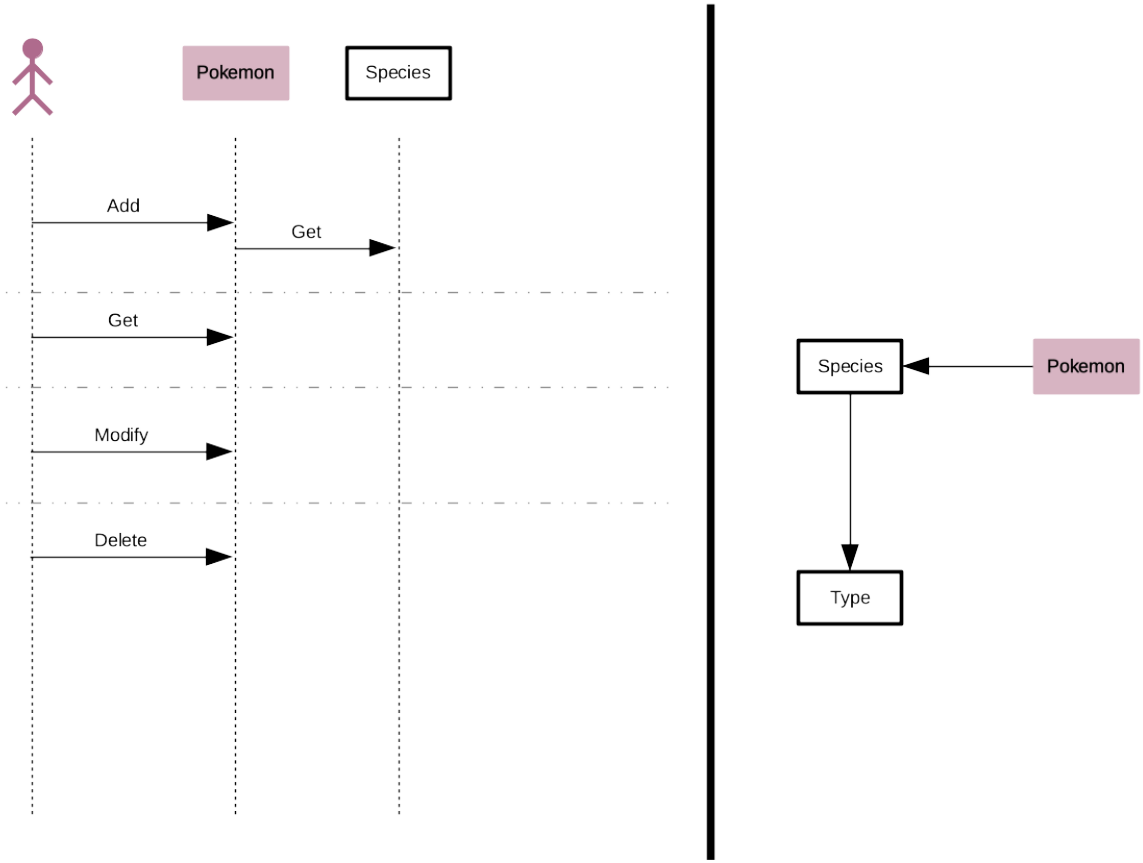
An example

Add a pokemon species



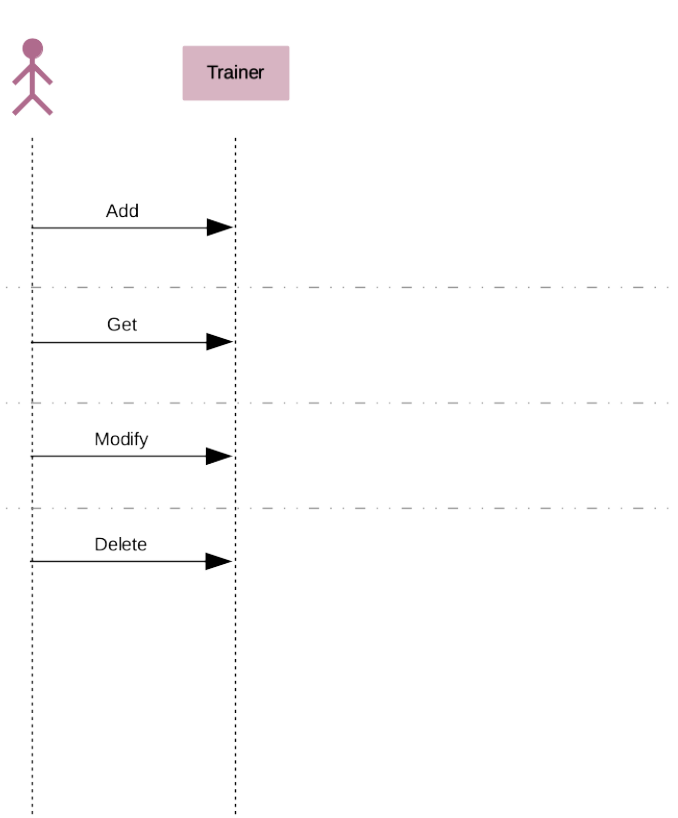
An example

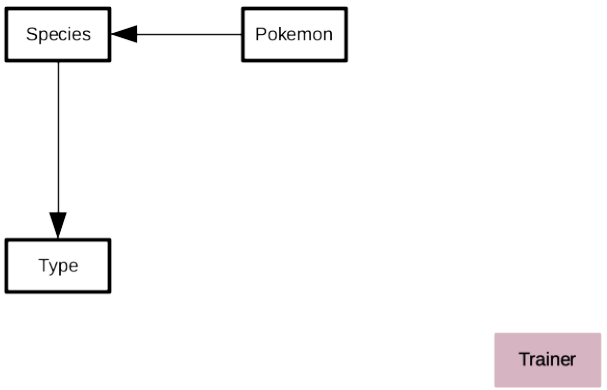
Add a pokemon



An example

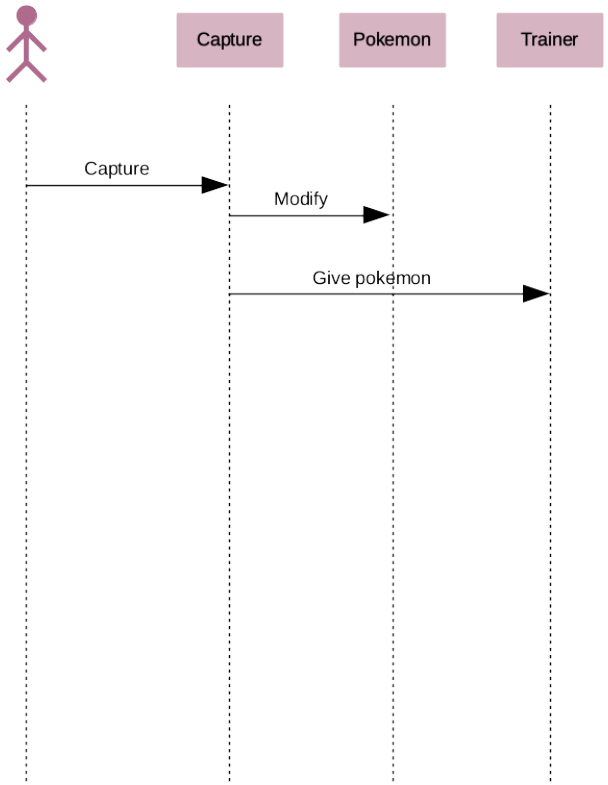
Add a pokemon trainer

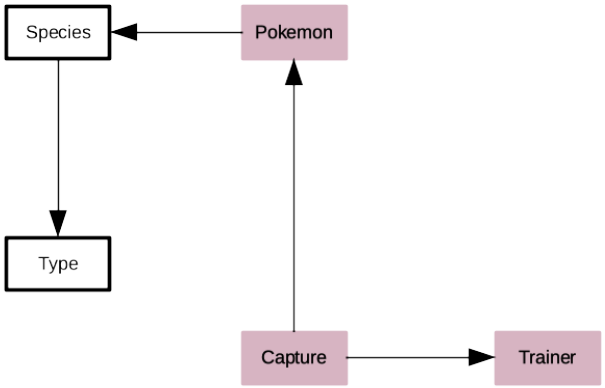




An example

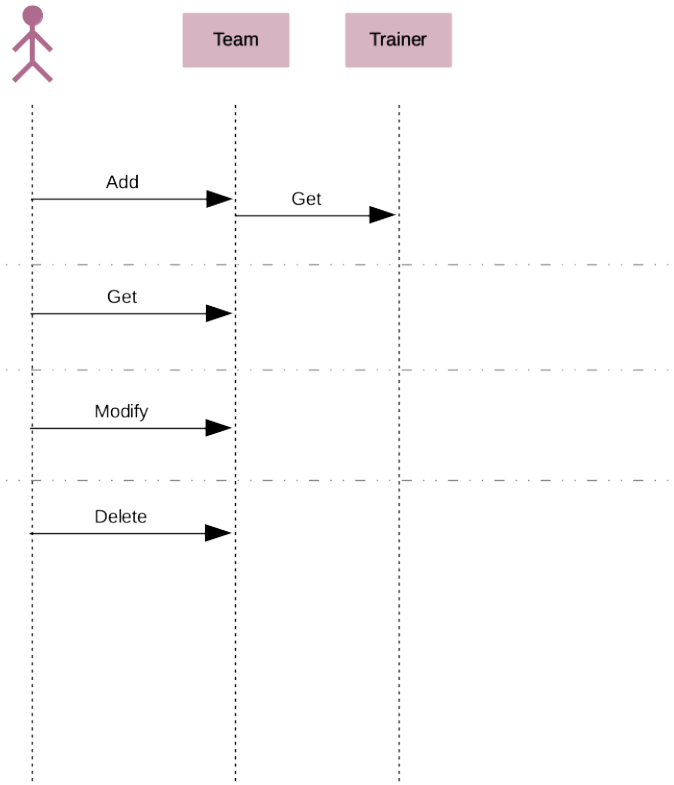
Capture a pokemon

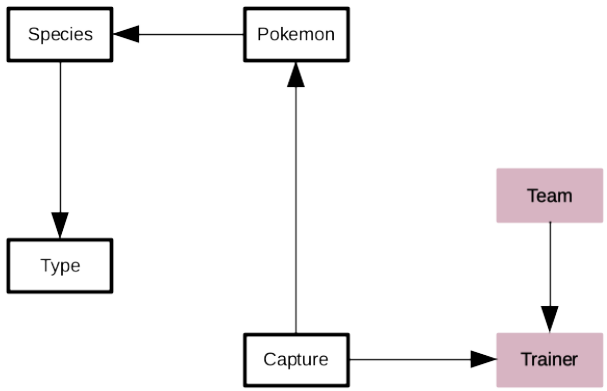




An example

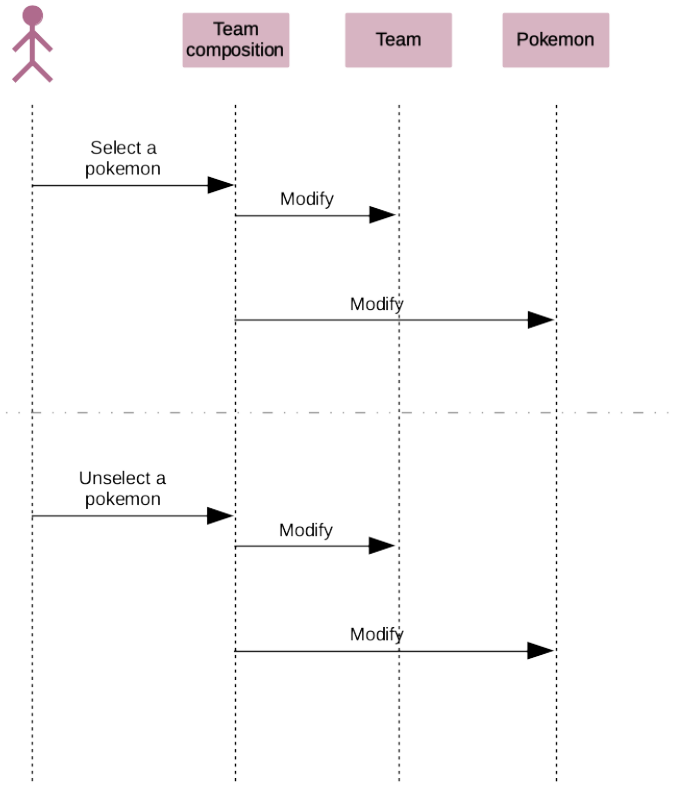
Manage a pokemon team

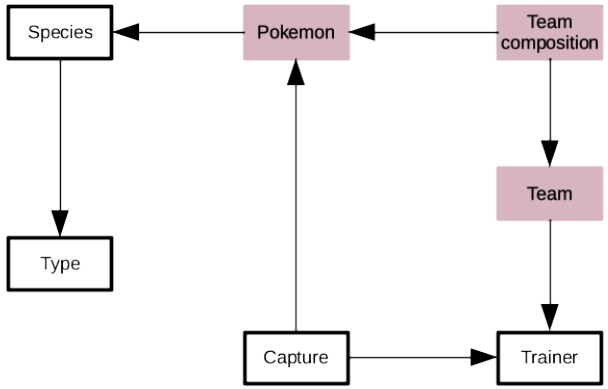




An example

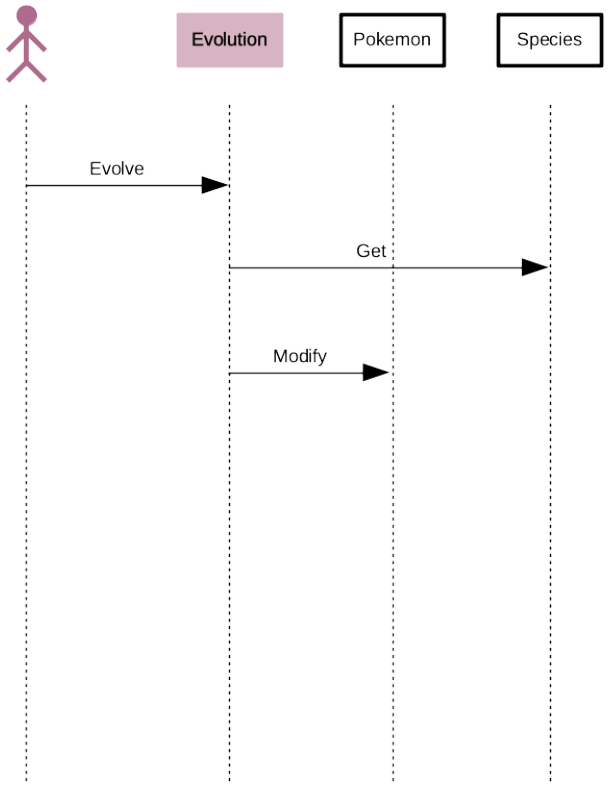
Manage a pokemon team composition

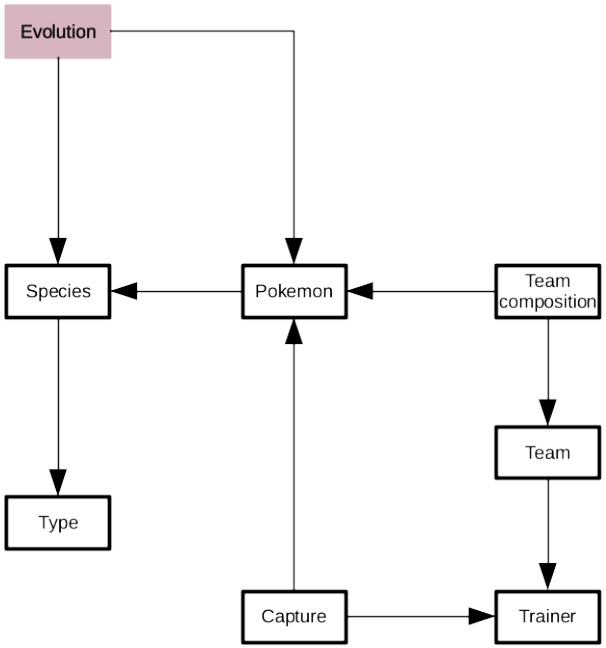




An example

Make a pokemon evolve





Requirements

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

Cloud defintion

Cloud defintion

Definition

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

Cloud defintion

Definition

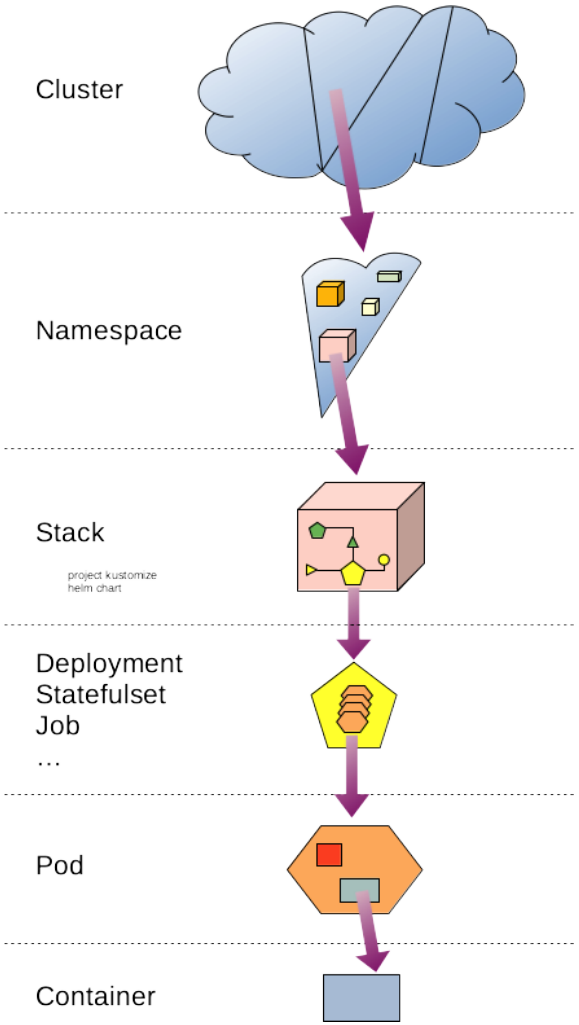
- On-demand availability of computer system resources
- Coherence
- Economies of scale

Some features

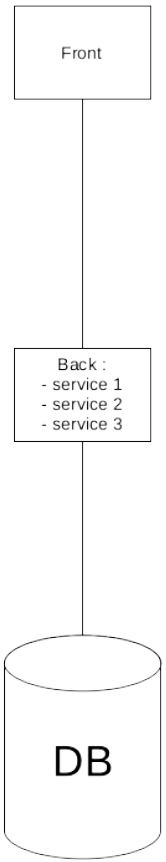
- Device and location independence
- Flexibility
- Scalability
- Reliability

What is a container?

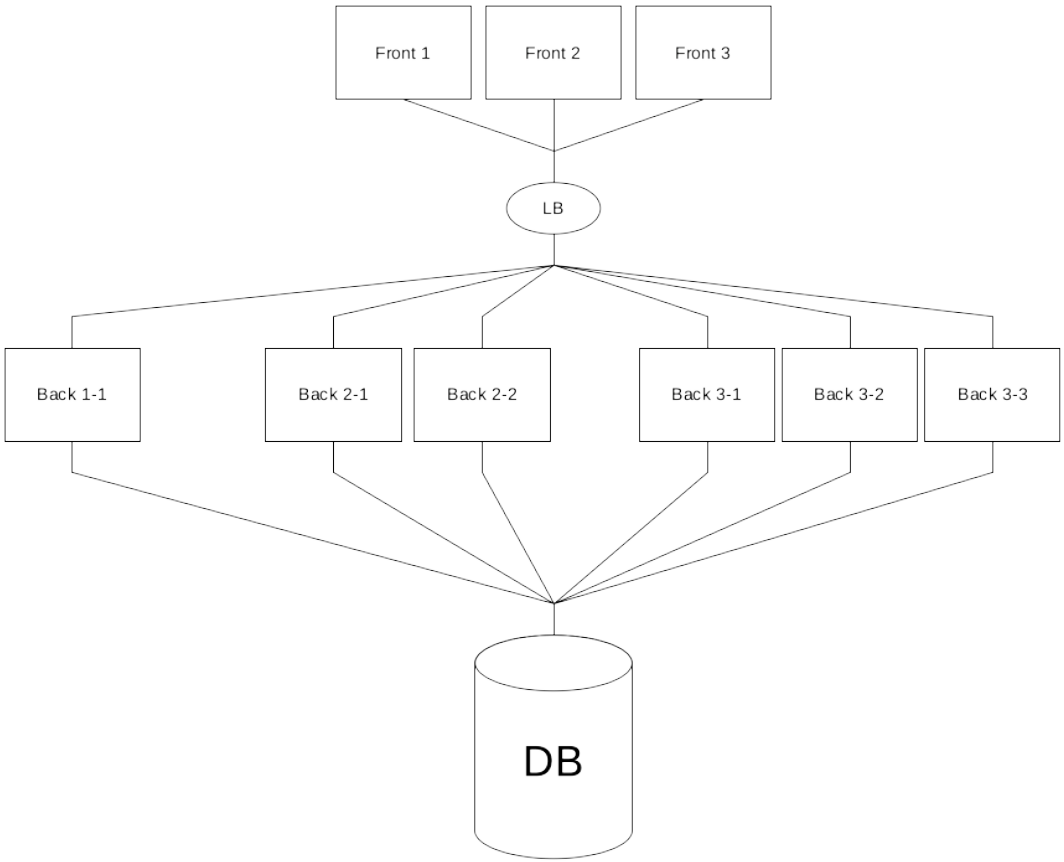
A cluster architecture



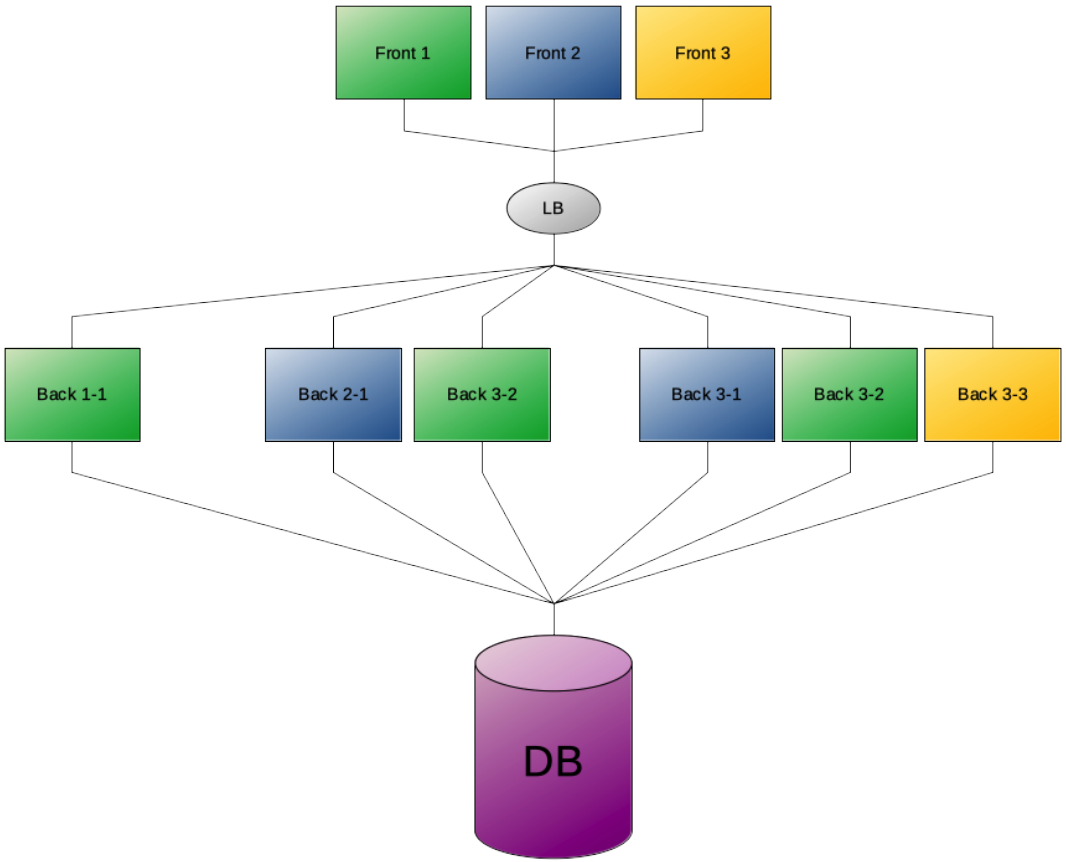
Scheduling example



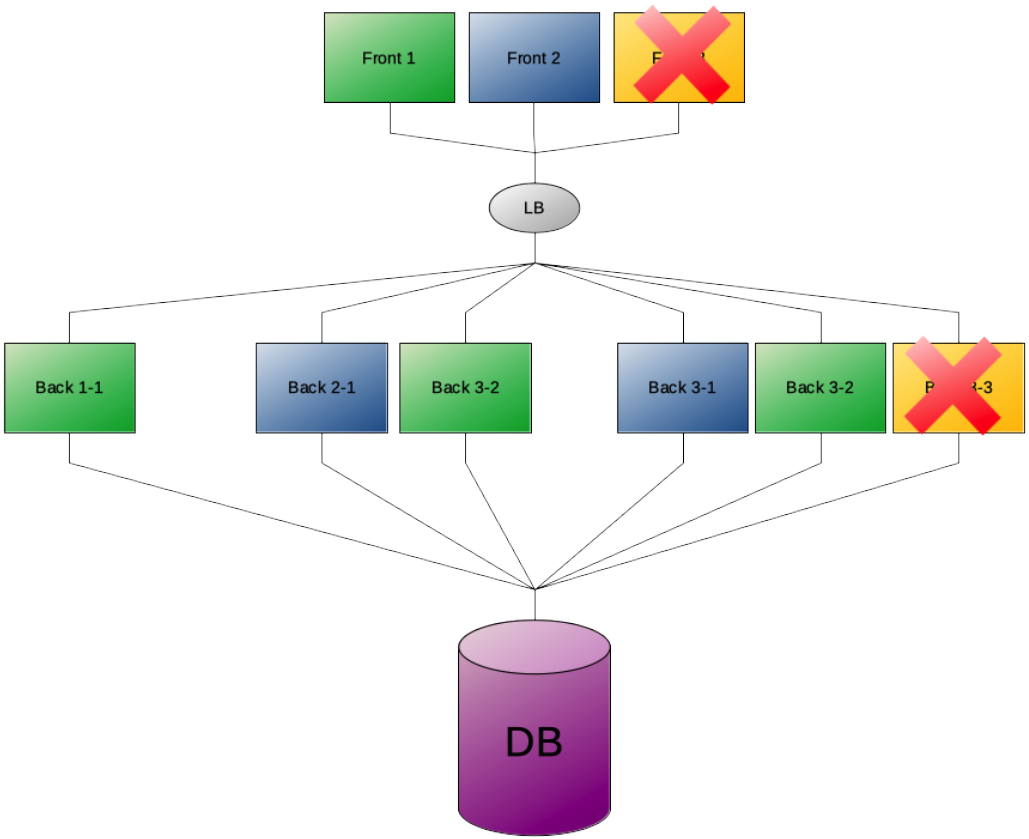
Scheduling example



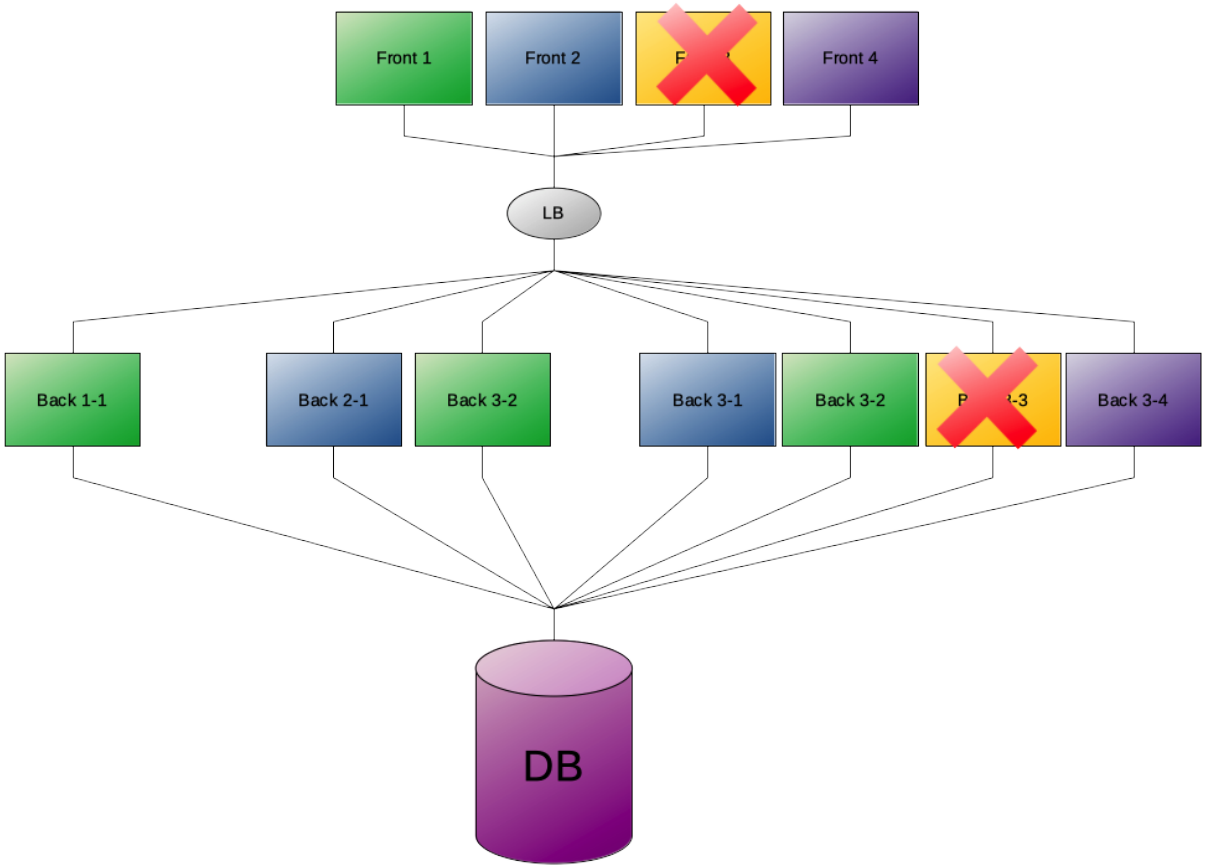
Scheduling example



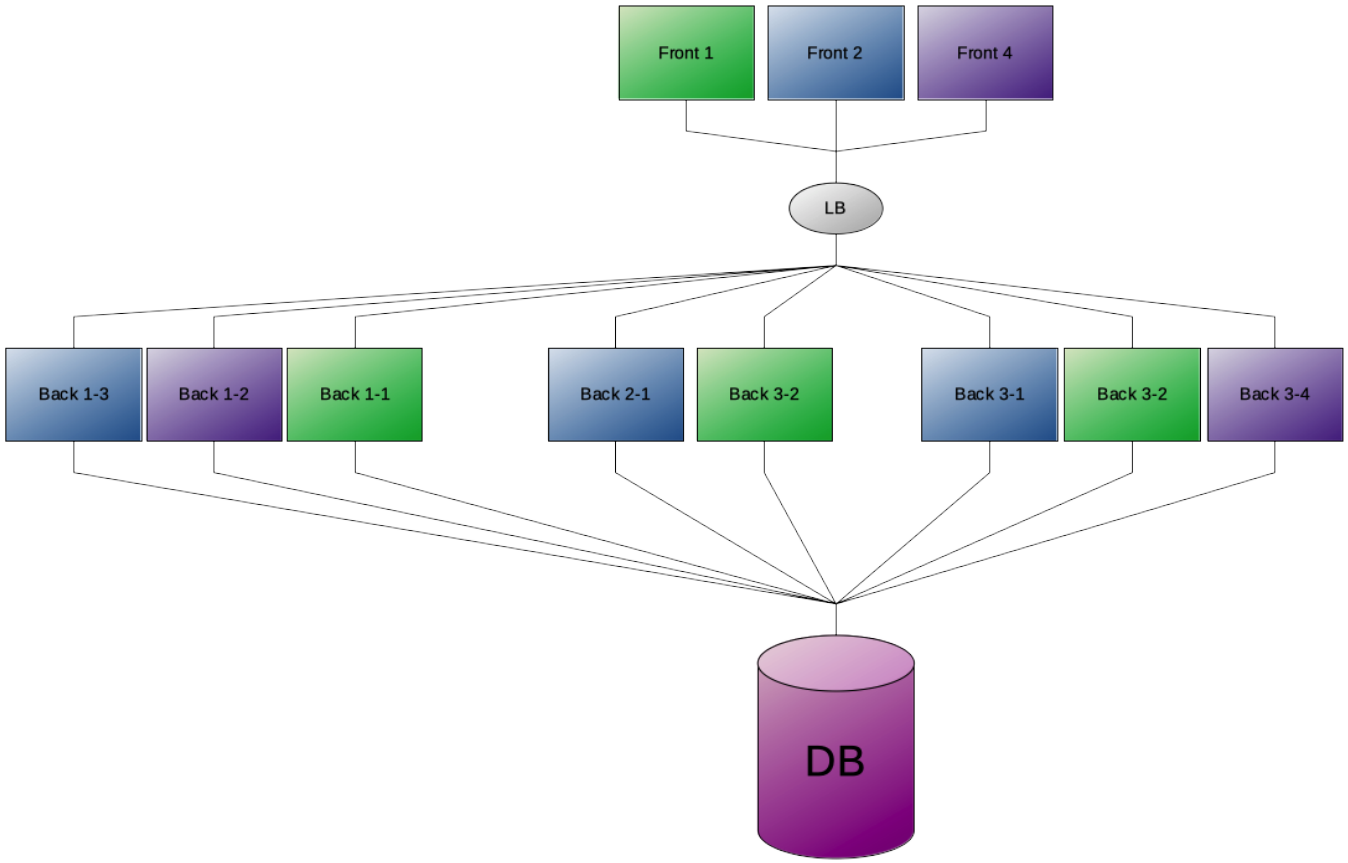
Scheduling example



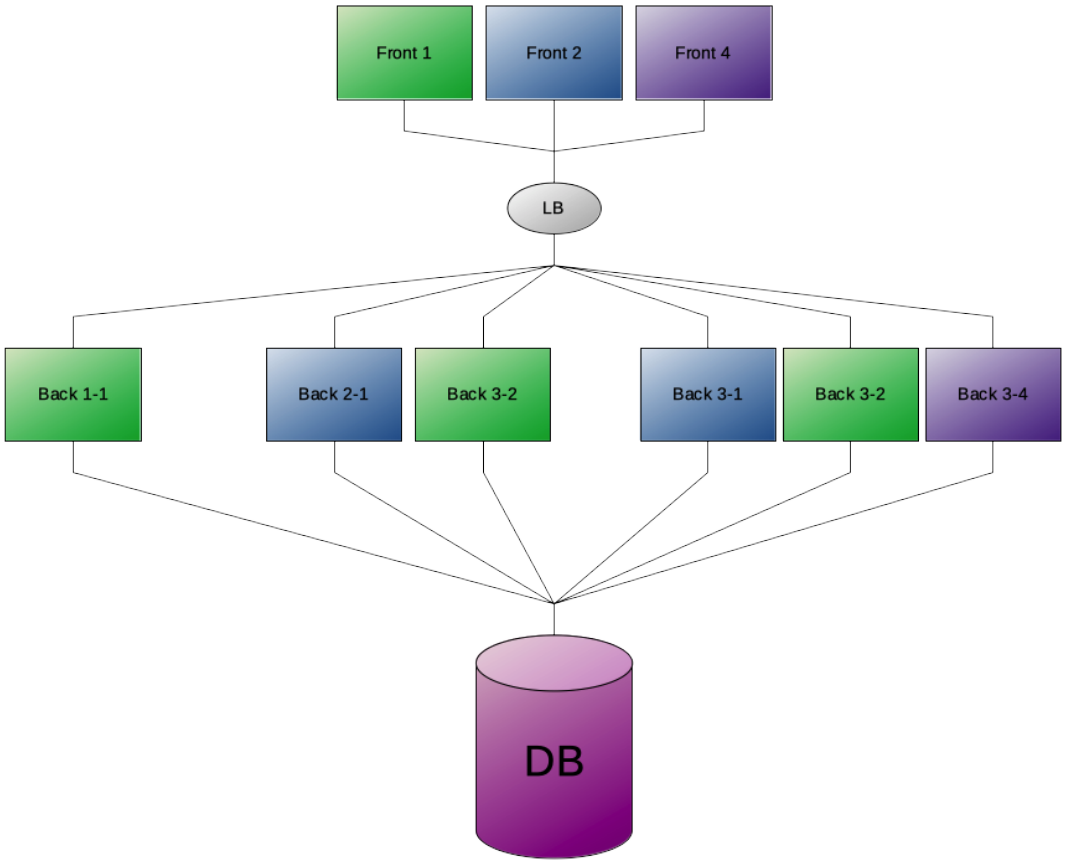
Scheduling example



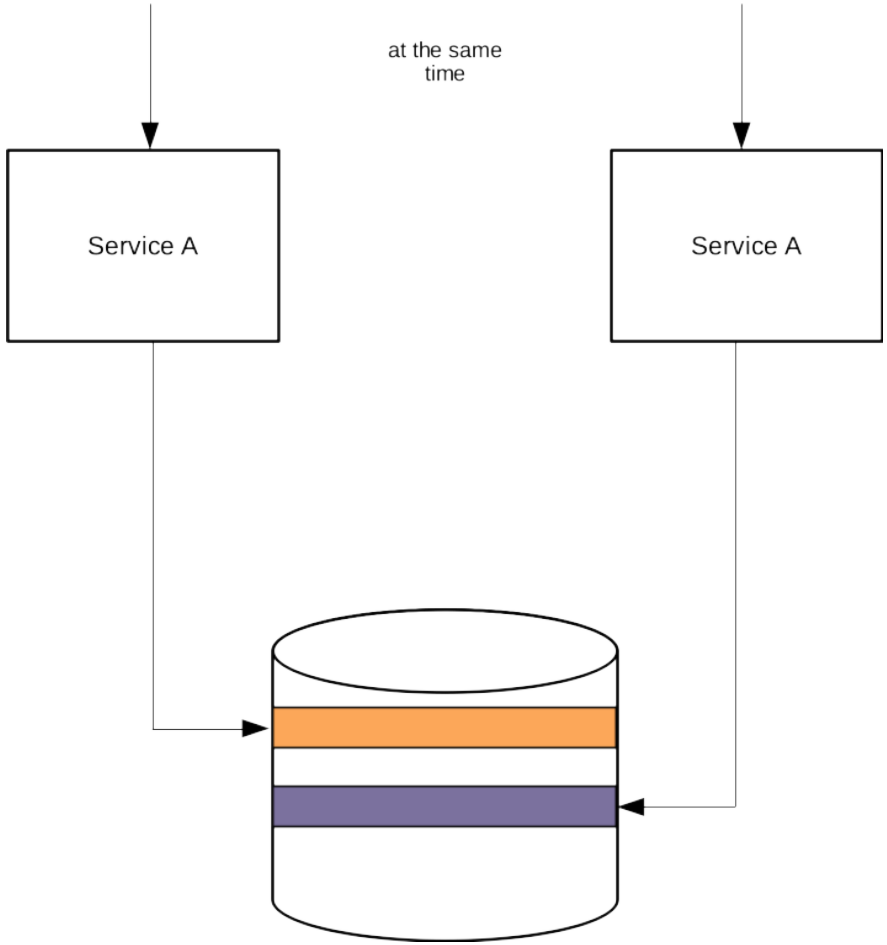
Scheduling example



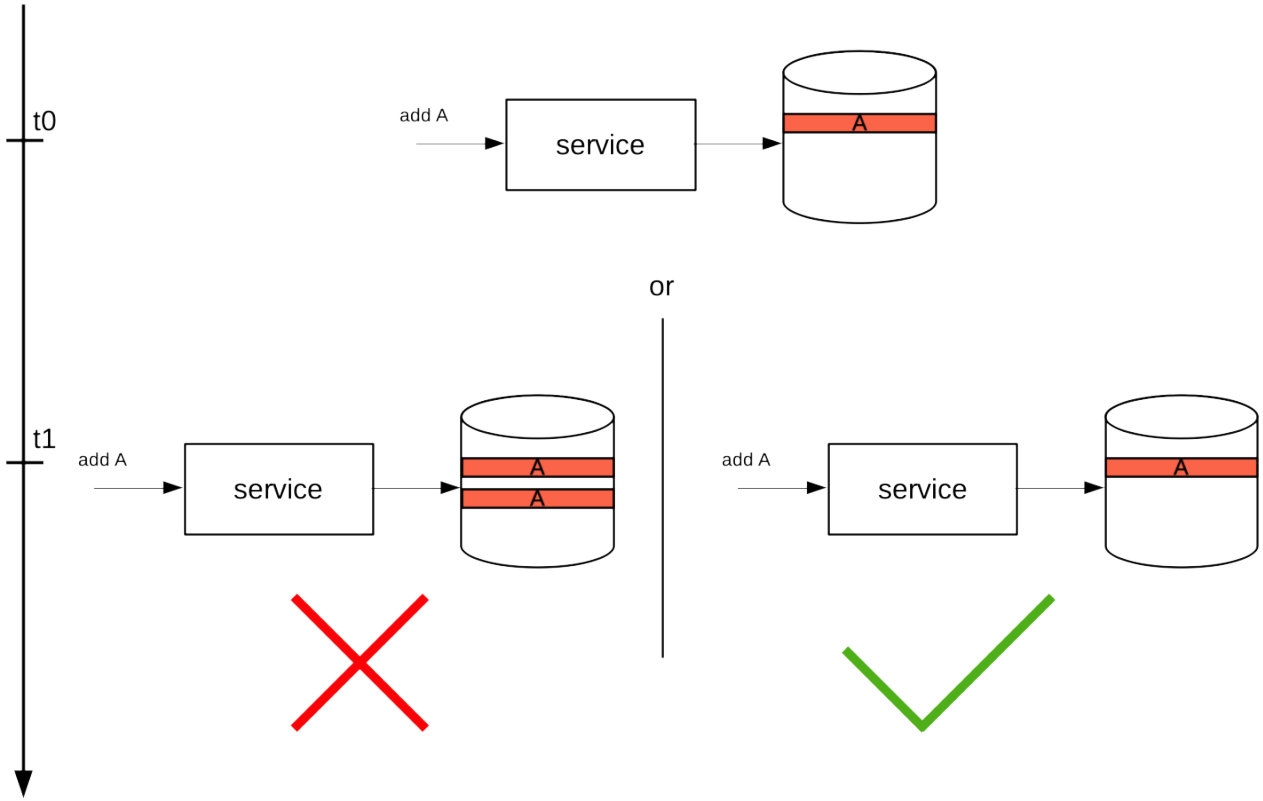
Scheduling example



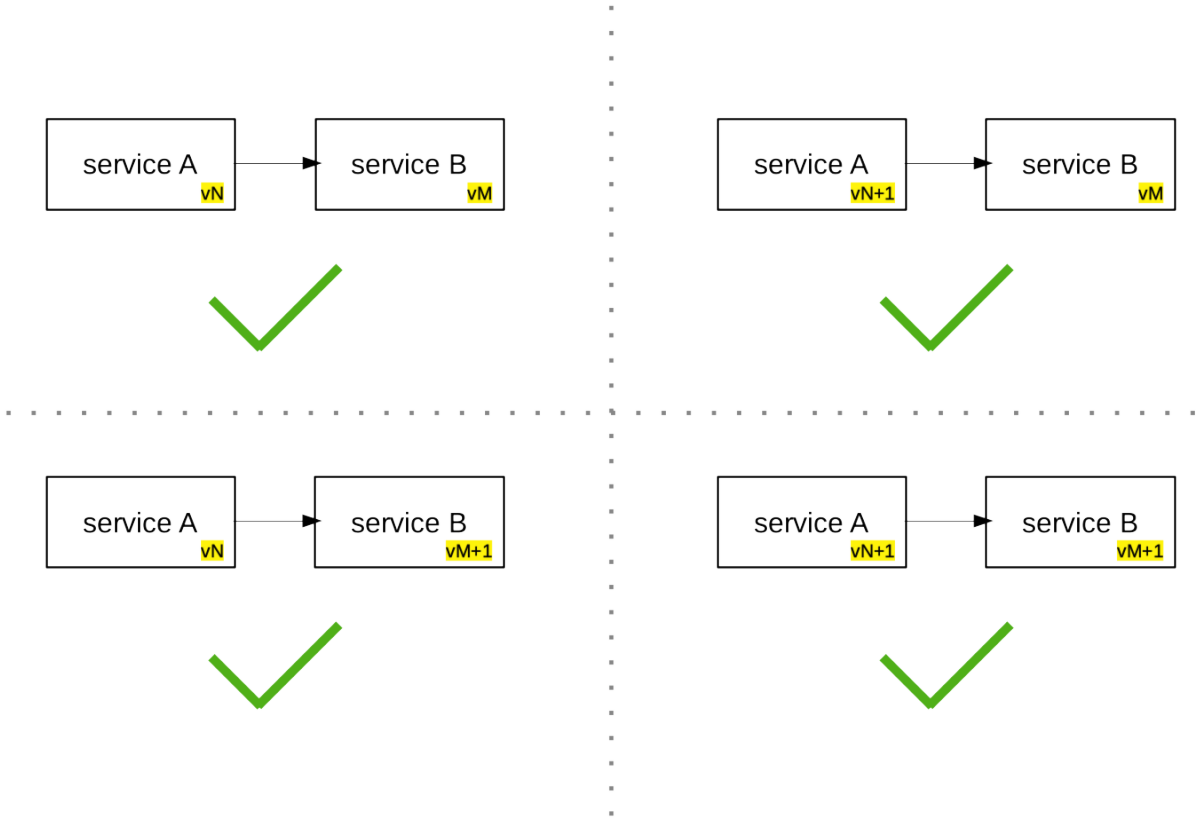
Concurrency



Idempotence



Backward compatibility



Design for failure

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

Design for failure

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

Be prepared!

Questions?