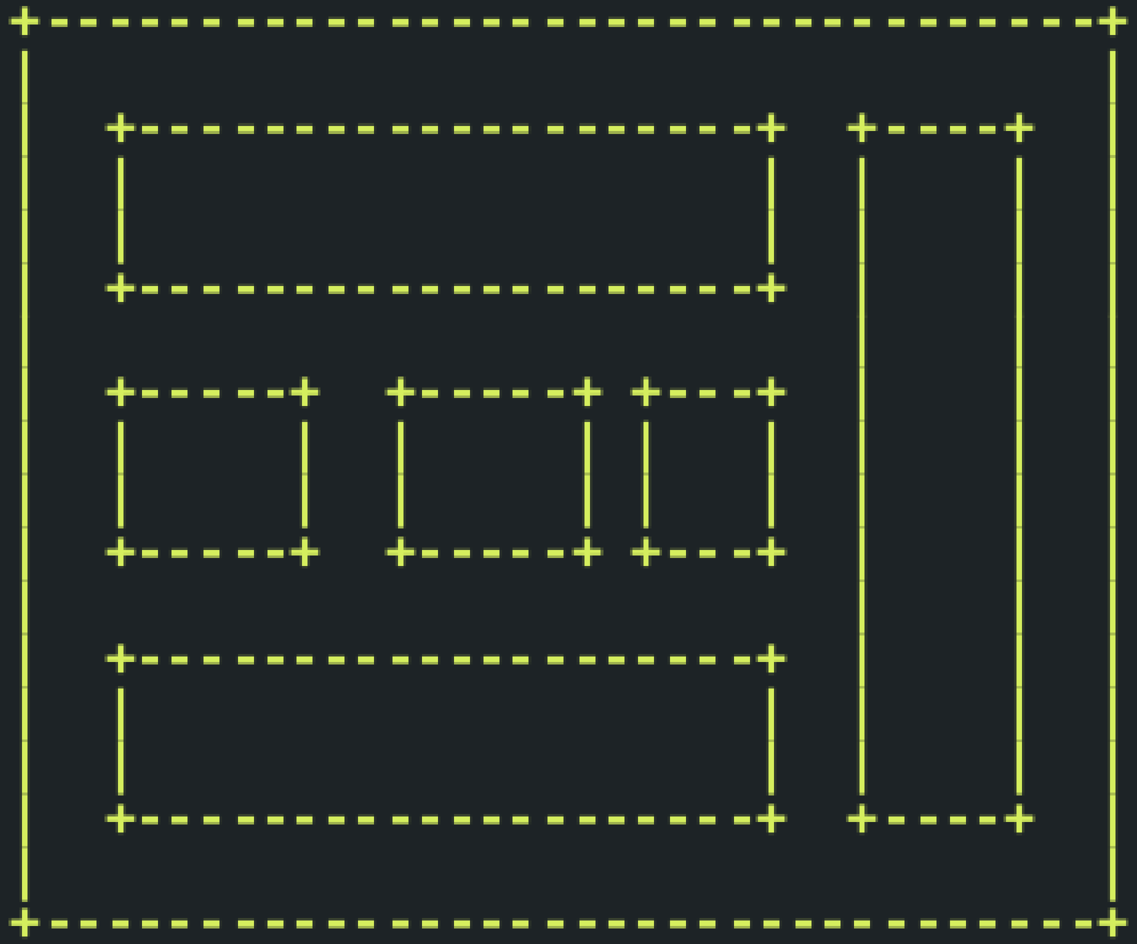
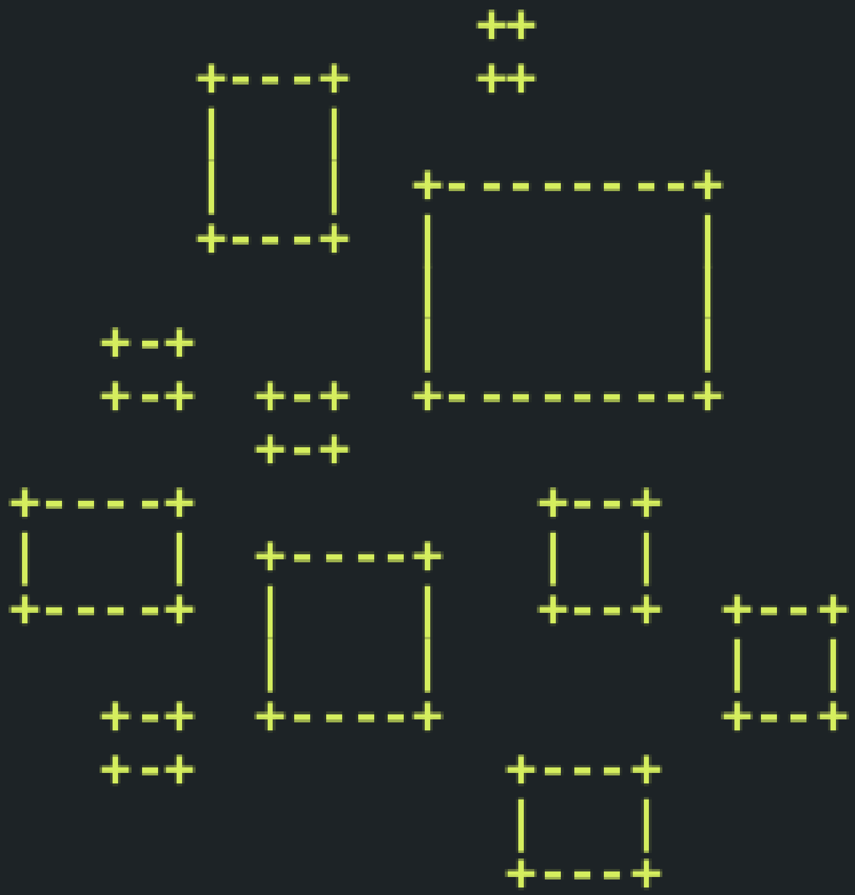
MICROSERVICES,
MICROSERVICES EVERYWHERE!
imgflip.com

Micro Service is an **architectural concept** that aims to decouple a solution by decomposing functionality into discrete services

with communication over lightweight mechanisms, often an HTTP API


Monolythic / layered


Microservice

My personal definition

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Built and deployed by itself standalone and isolated

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Owns its own data ultimate goal

Some problems with monolythic architecture

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Even when layered, hidden coupling

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Single runtime, allows in memory calls

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Even when layered, hidden coupling
Single runtime, allows in memory calls
FUD: if it works don’t fix it don’t touch it
Good diagrams not always make it to good code

> “Problems of developing software derive from essential complexity and its nonlinear increases with size; leading to difficulty of communication among team members, cost overruns, schedule delays.
>
> The Mythical Man-Month
>
> — Fred Brooks

TAKEAWAY

Separate things that change with a

different pace

TAKEAWAY

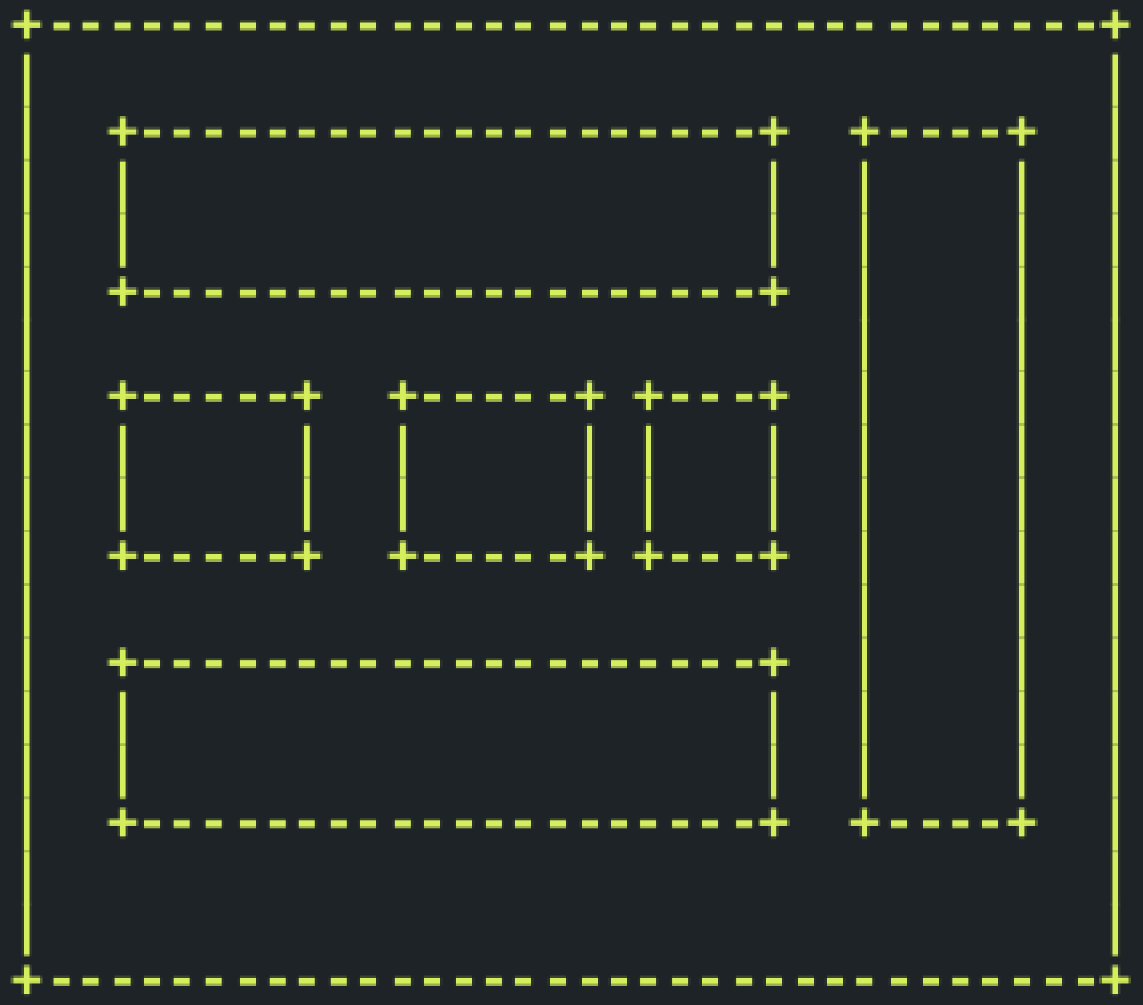
If you get the mindset

everything is a service

just not always very micro

Get more practical?!?!?!

How to package?
How to deploy?
How to scale?
How to orchestrate?
How to monitor?
How to discover?



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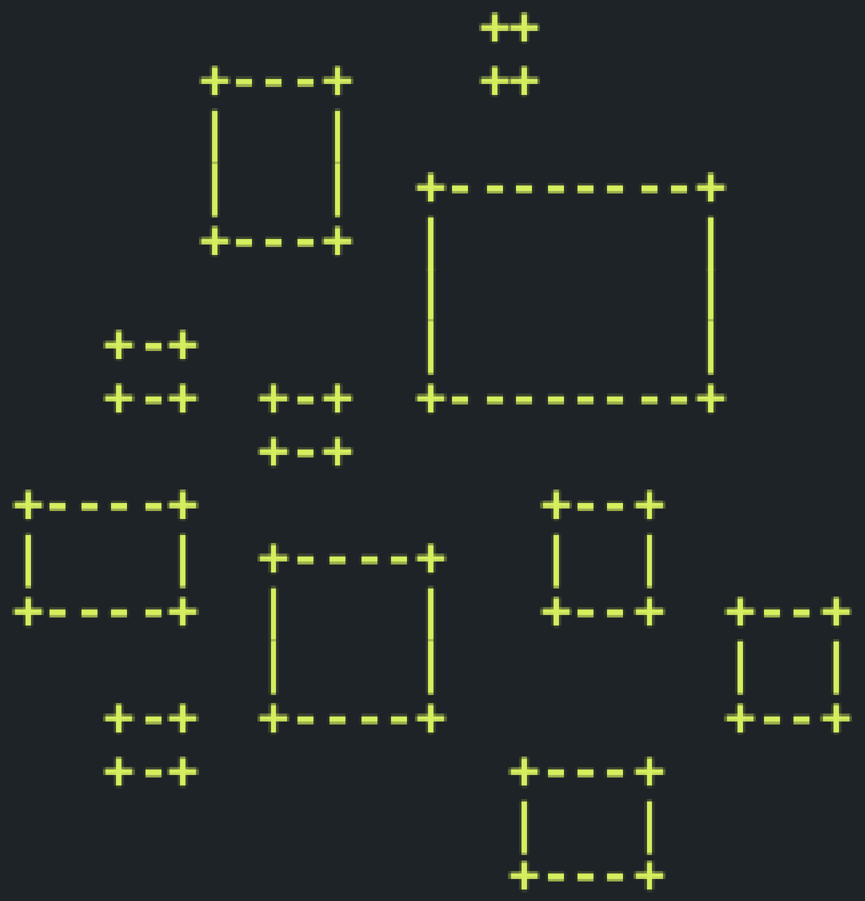
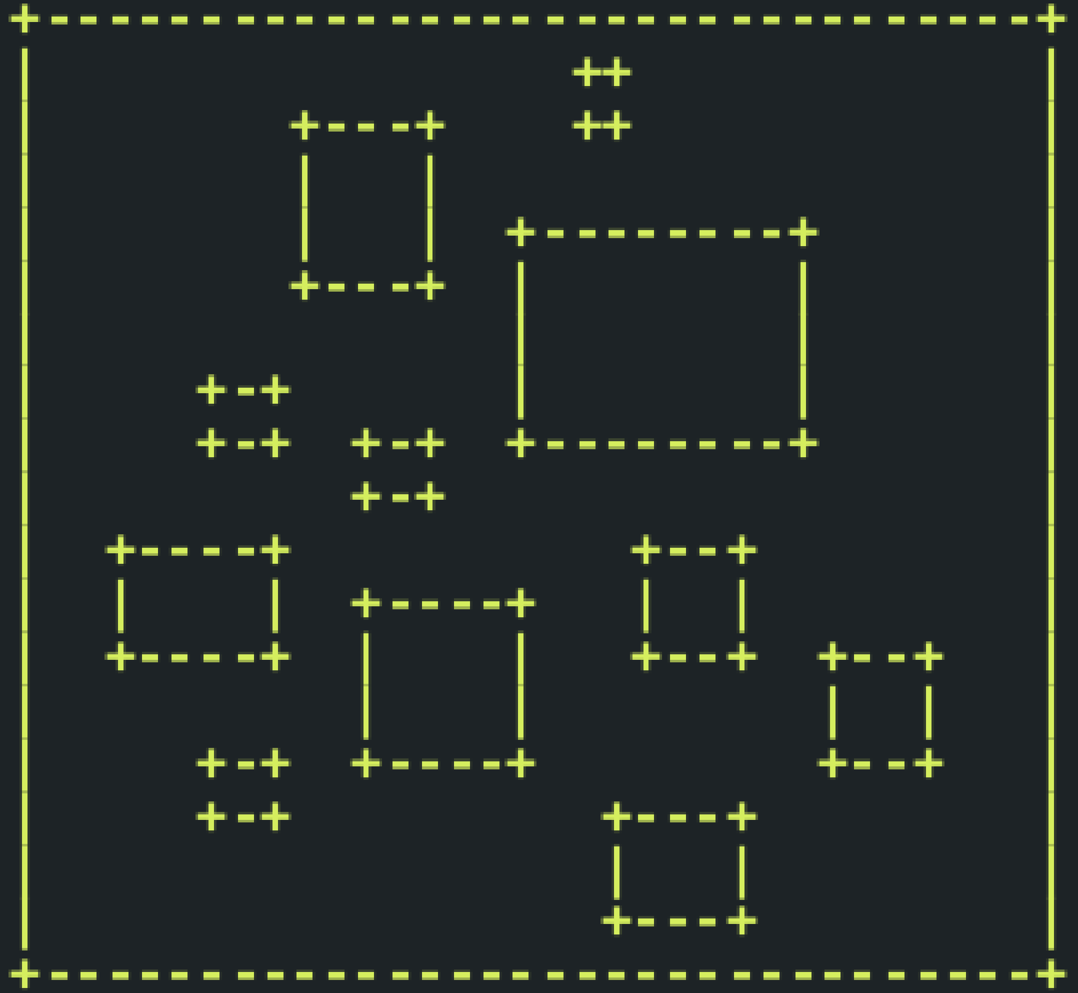
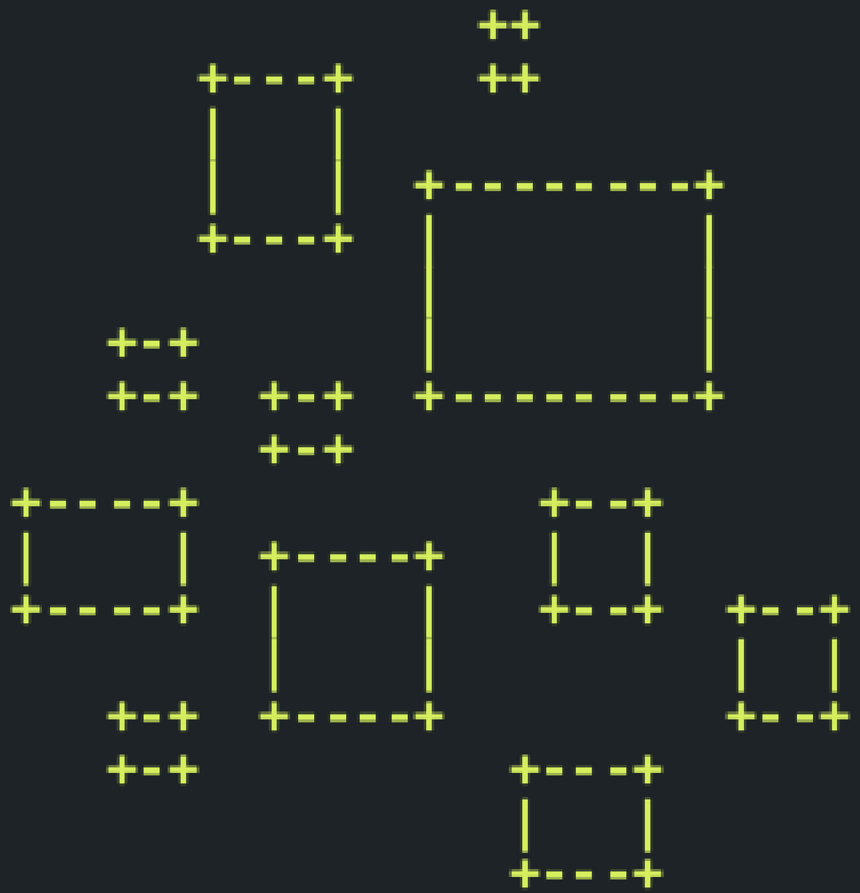


Microservice



Something in between
(components ?)



Microservices

What if?

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each services runs its own process? JVM

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talks with other through HTTP? or some message bus

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covers small domain problem IAM, results, content

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decouple frontend (JS) and backend HTTP calls

Challenges?

APIs (external, web, external)
Versioning generic services
Consumer driven contracts
Scaling individual services (behind event bus)