

Entwickler und Architekten

Strategien 2021

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Oliver Sturm

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- Consultant, trainer, author, software architect and developer for 30 years
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Agenda

Idee: Technologie diskutieren

Was sind Ihre Fragen? Diskussionspunkte?

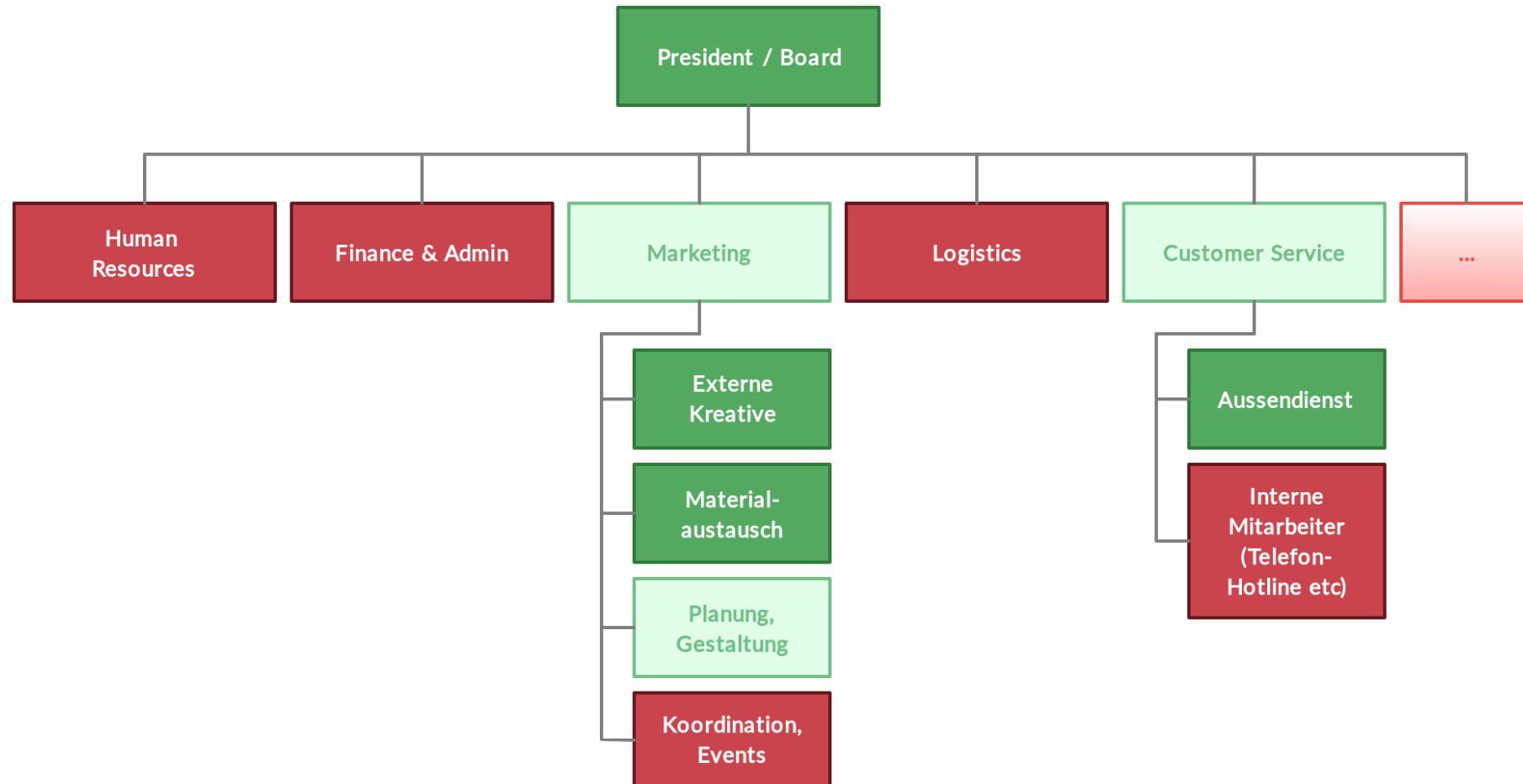
Anregungen

- COVID-19 - was ändert sich?
 - Microservices, ja oder nein? Und wie?
 - Cloud - muss das sein? Welche? Worauf kommt's an?
 - Serverless - wird da nicht alles schwieriger?
 - CQRS? Event Sourcing? Eventual Consistency? GraphQL? Moderne Datenzugriffspatterns
 - Container und VMs - Docker, Kubernetes, Vagrant, Terraform...
- Blazor? Ist das die Zukunft? Server mit SignalR oder Client mit WASM?
 - Wie mache ich am besten Mobile? Oder Desktop? Oder beides?
 - gRPC statt JSON-Diensten?
 - React vs Vue vs Angular usw....
 - TypeScript oder doch einfach JavaScript?
 - Oliver Sturm's Best Practices Architekturmodell

Fragen

- Microservices, CQRS, Event Sourcing (Weinand)
 - Wie kommt Software in die Cloud? (Klotz)
 - .NET Core nach .NET 5 / jetzt oder spaeter? (Westphal)
 - Blazor, jetzt oder spaeter? (Heiniger)
 - Ist die Zukunft der Software wirklich Web? (Mohr)
 - Sidecar-Framework fuer Cloud (Heiniger)
- Mobile oder Desktop oder beides? Best practices (Nasuf)
 - Konfiguration von Microservices, zentral oder pro Service (Torrente)
 - Sicherheit - User darf nichts manipulieren koennen (Klotz)
 - Welche Technologien sind besonders gut fuer kleine Teams, kann ich skalierfaehige Prototypen erzeugen (Ruether)
 - How to avoid the big ball of mud?

Vor COVID - Eingeschränkter Remotezugriff



Vor COVID - Eingeschränkte Remote-Funktionalität

ERP System

Human
Resources

Customer
Relationship
Management

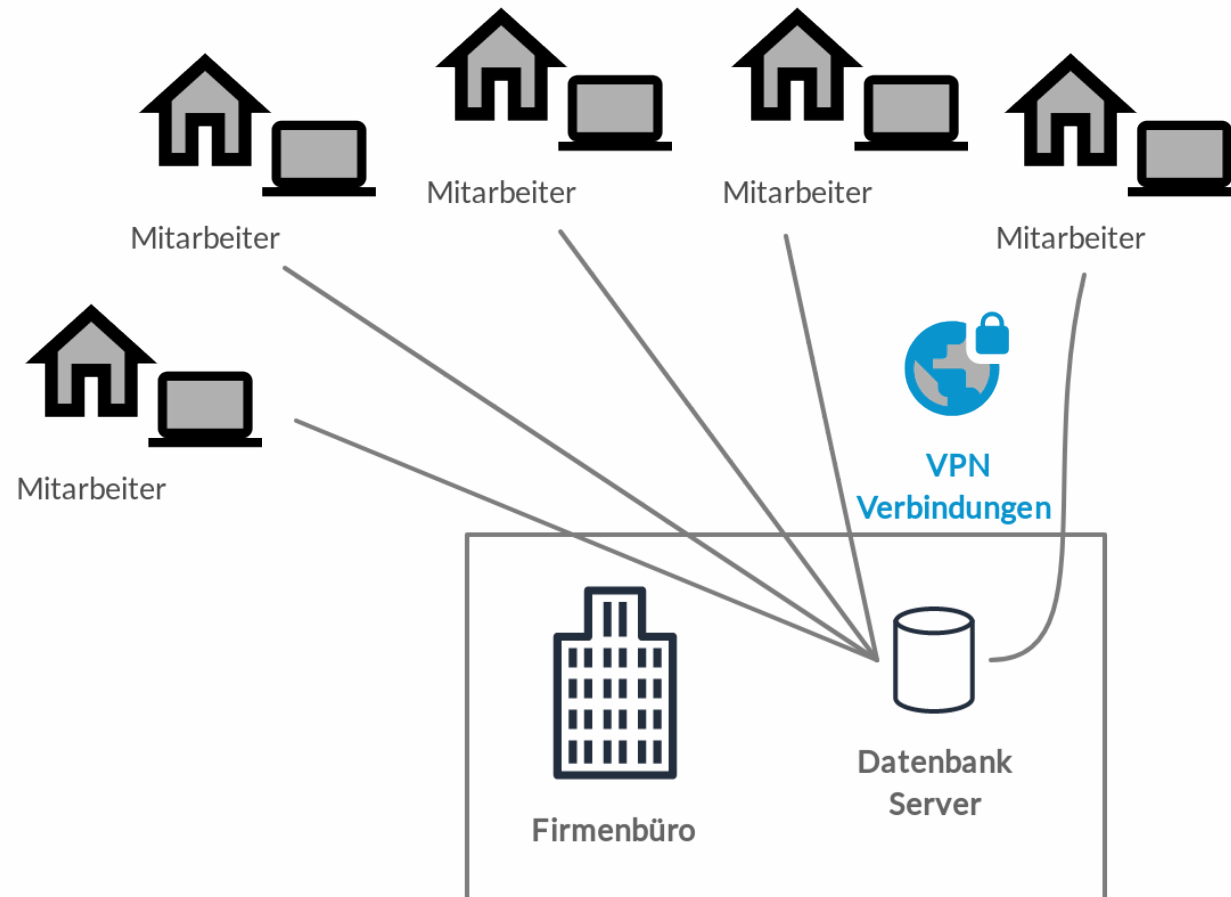
Business
Intelligence

Supply Chain
Management

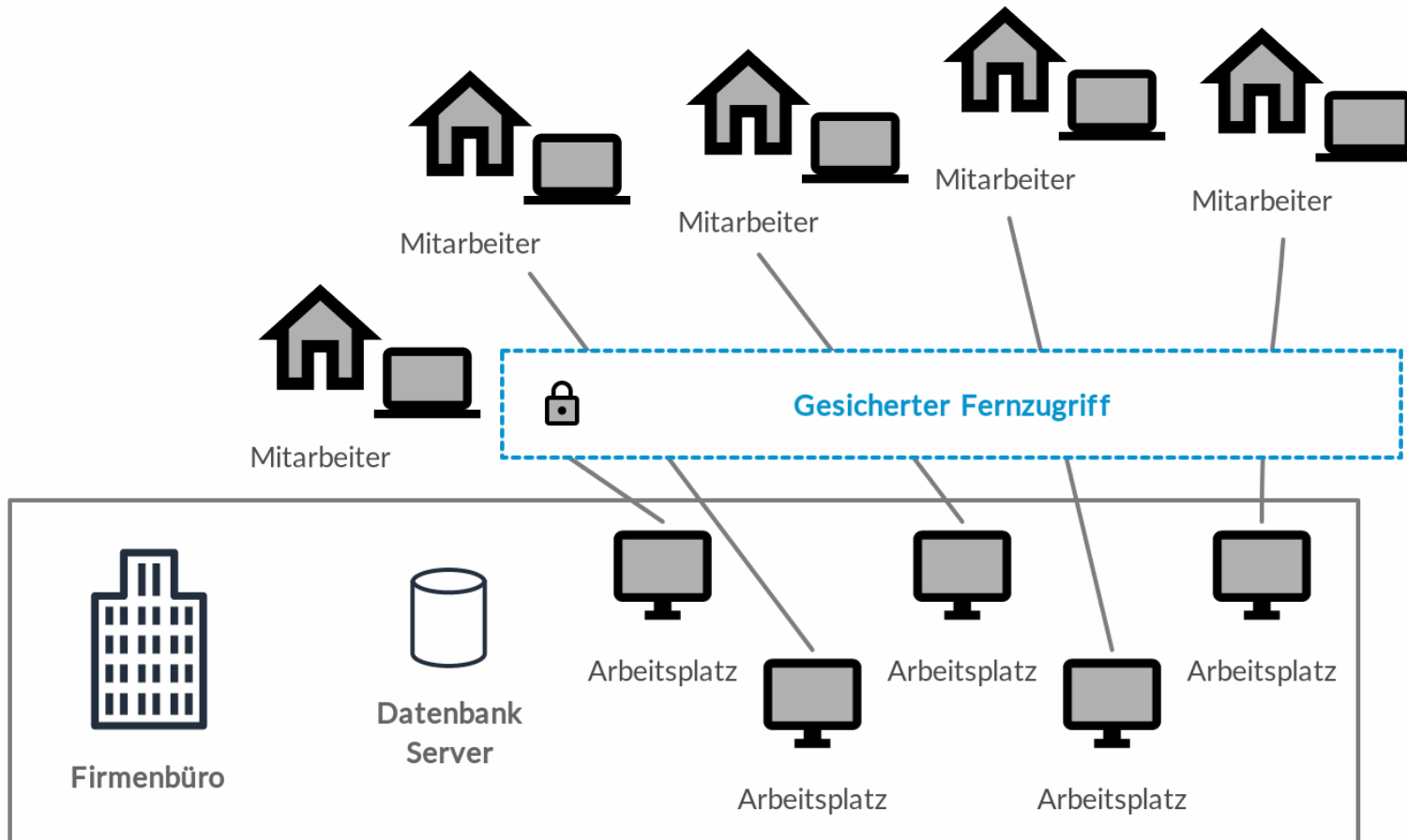
Inventory
Management

Financial
Management

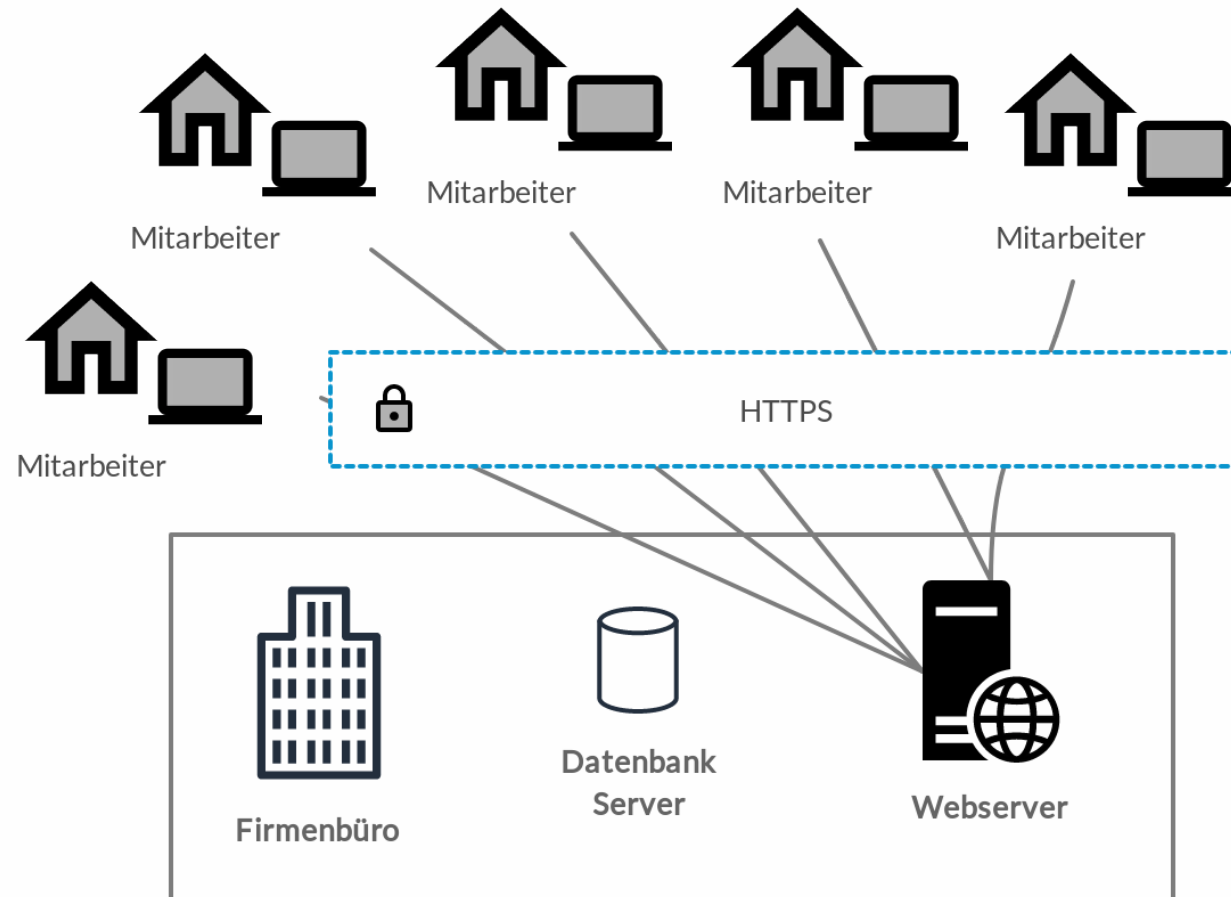
Fernzugriff auf eine Datenbank



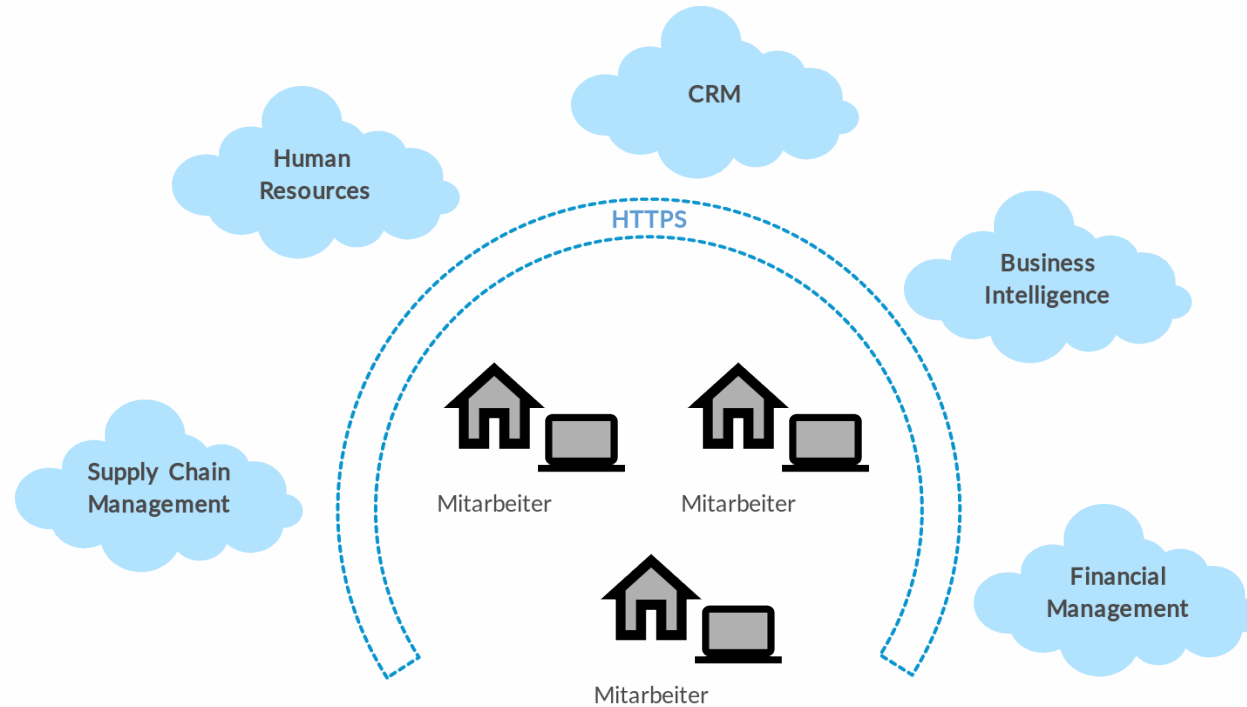
Fernzugriff mit Remote Desktop



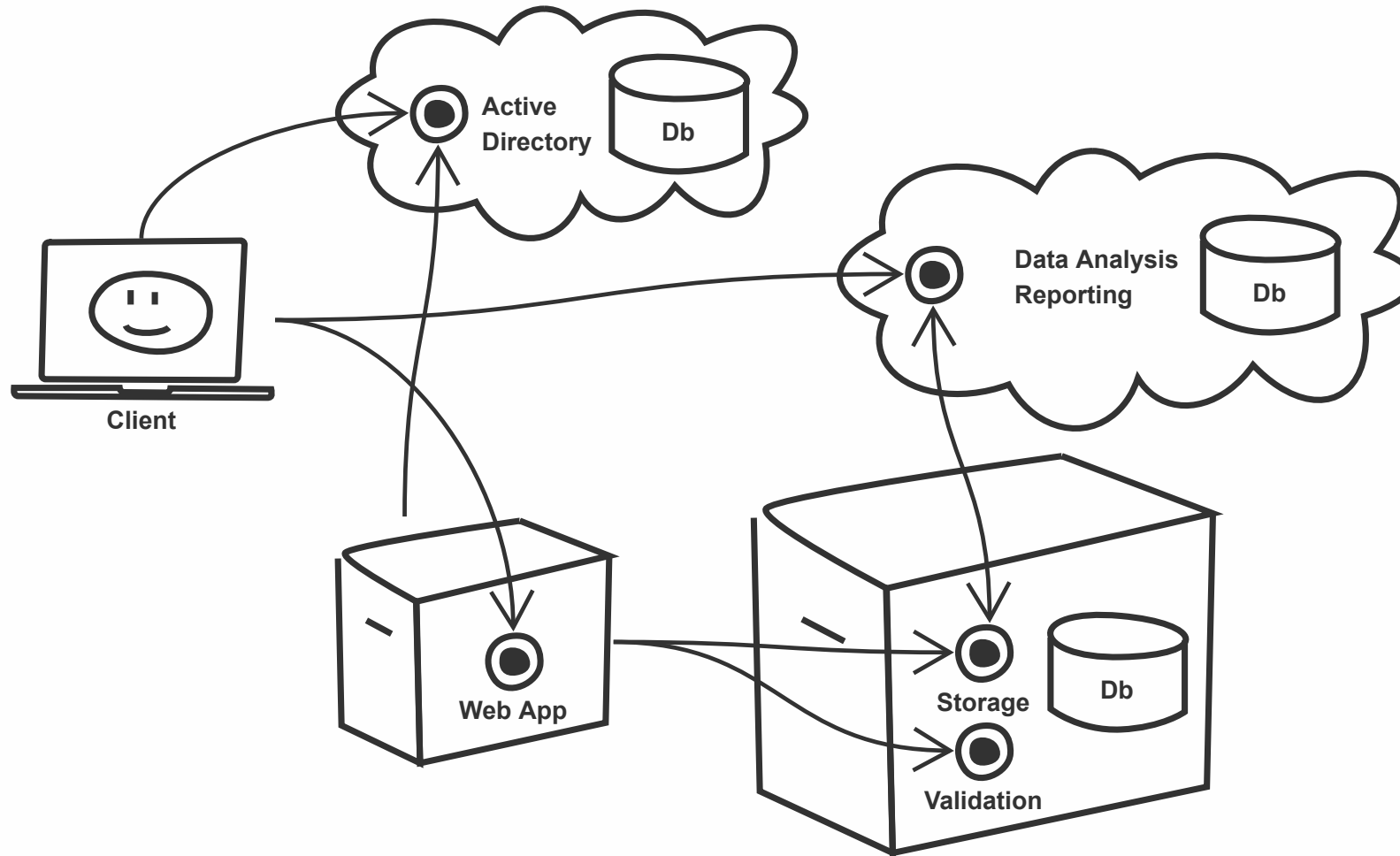
Einfache Web-Anwendung

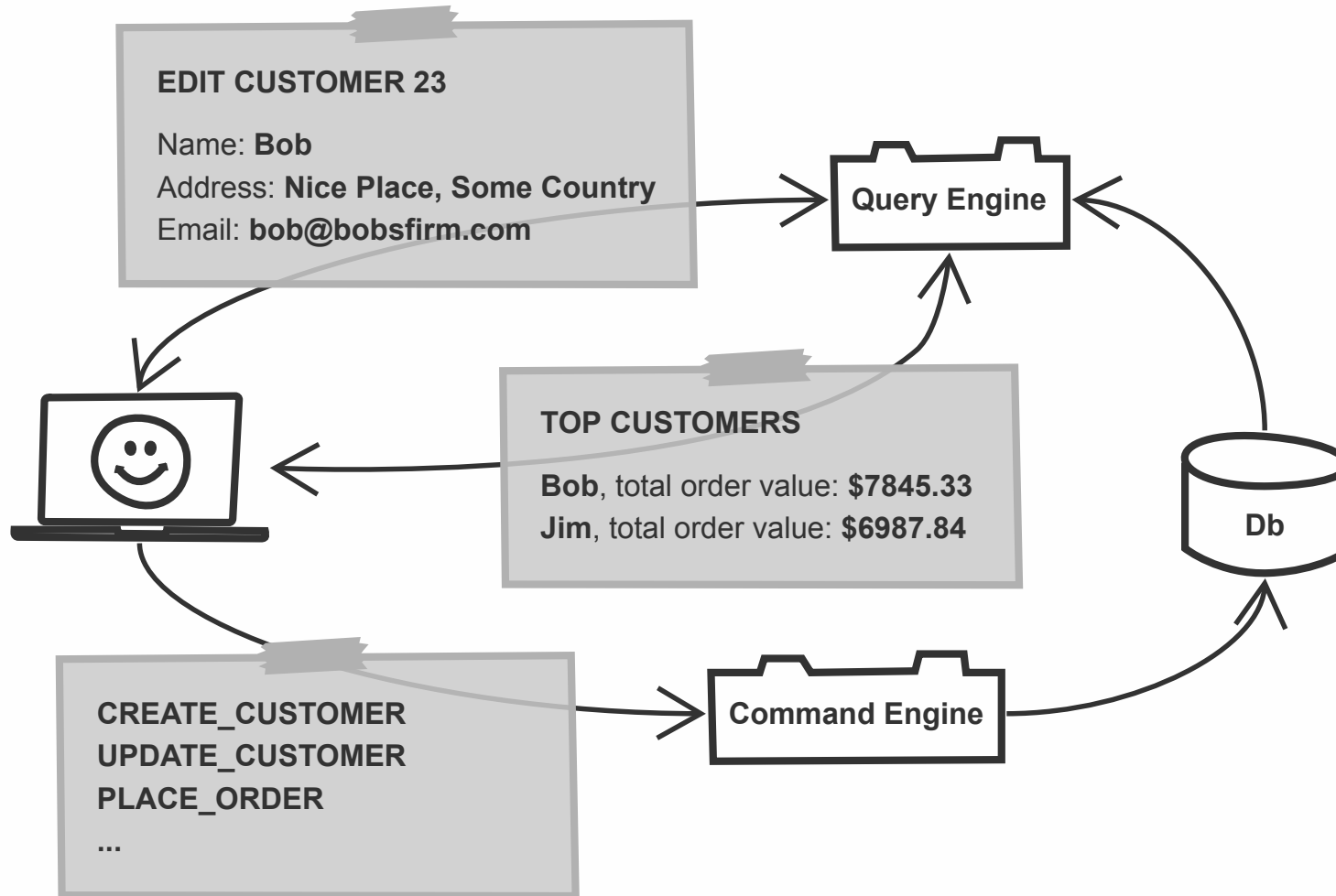


(Micro-?) Services

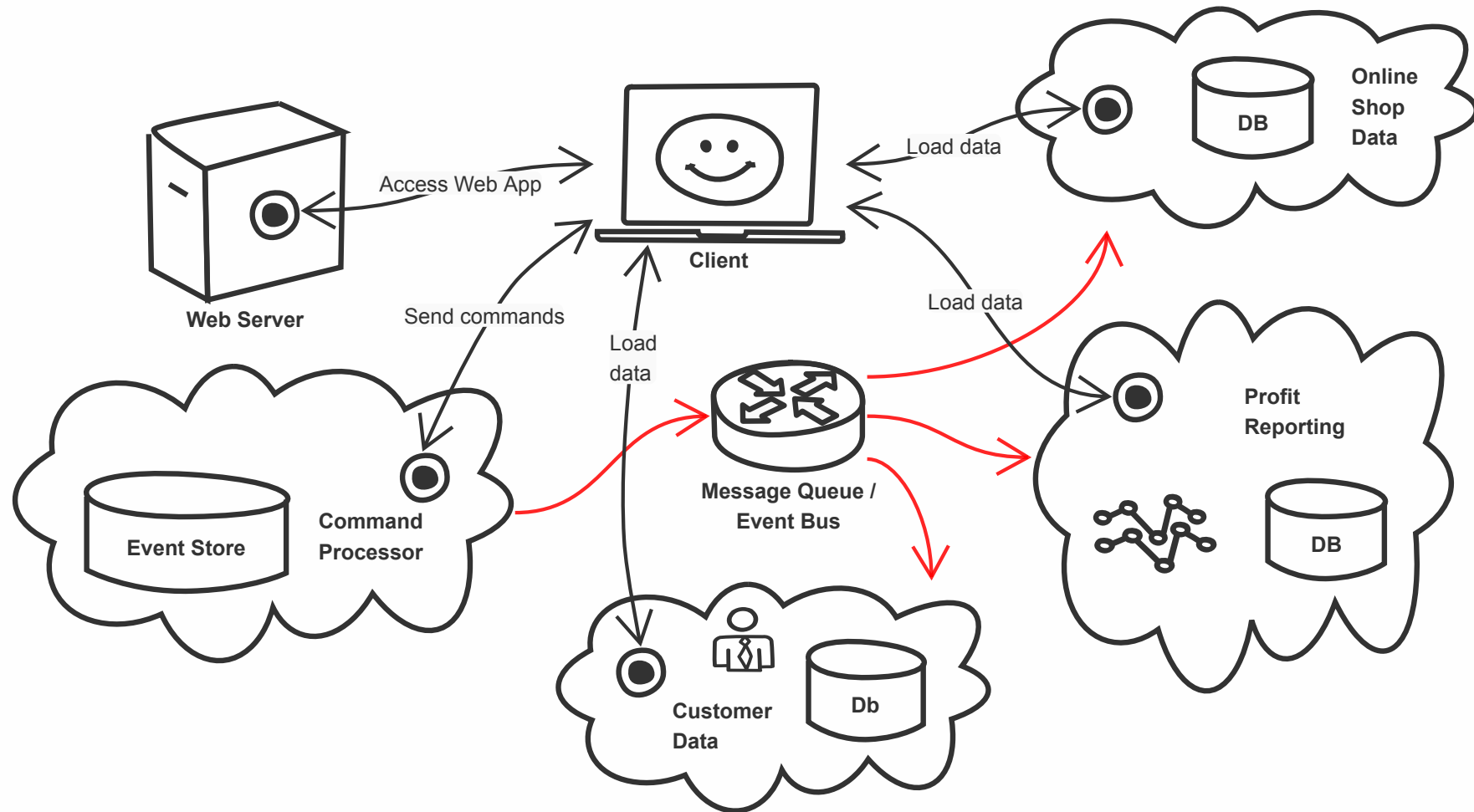


Dienststruktur - Micro oder Größer

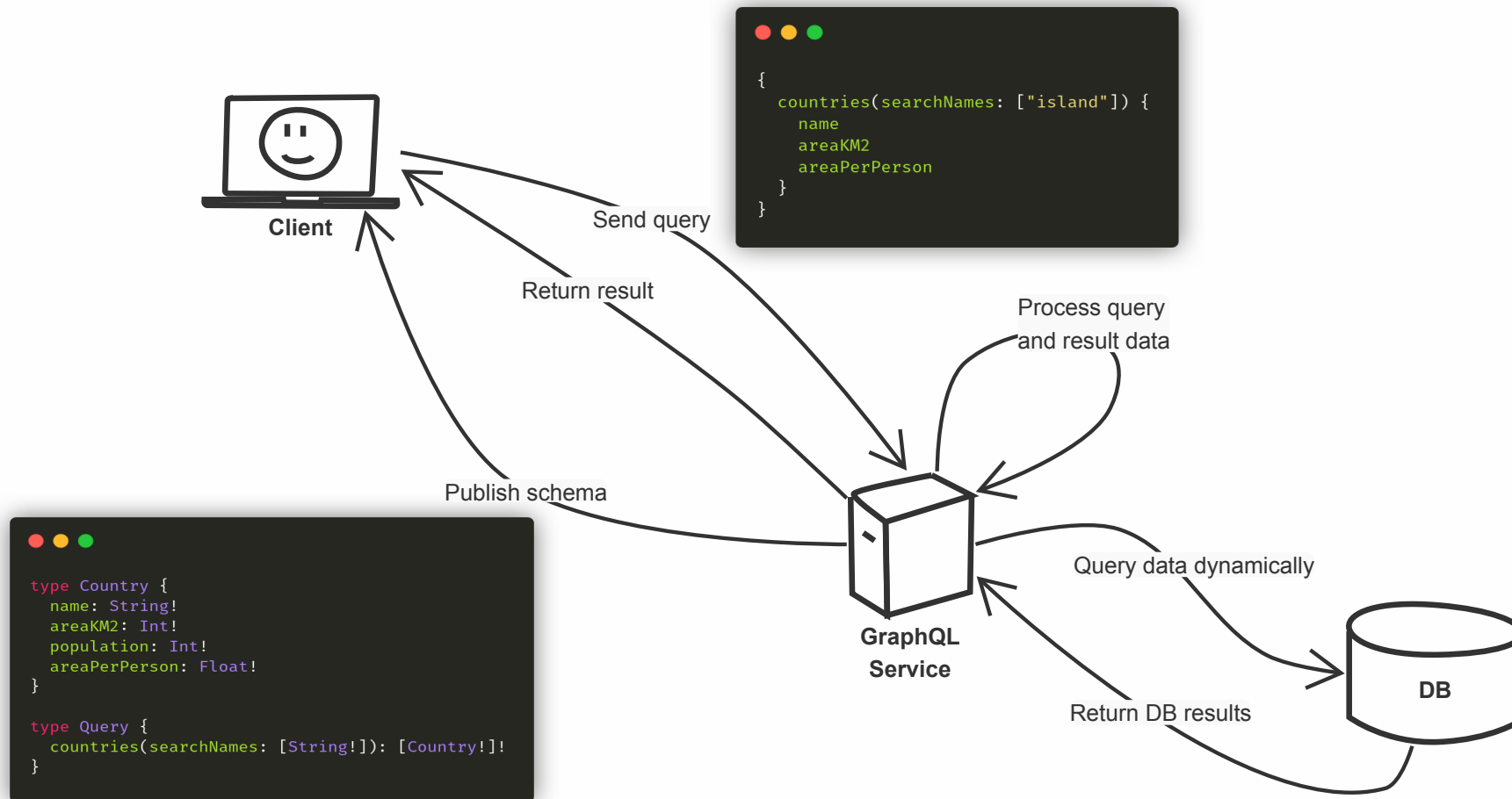




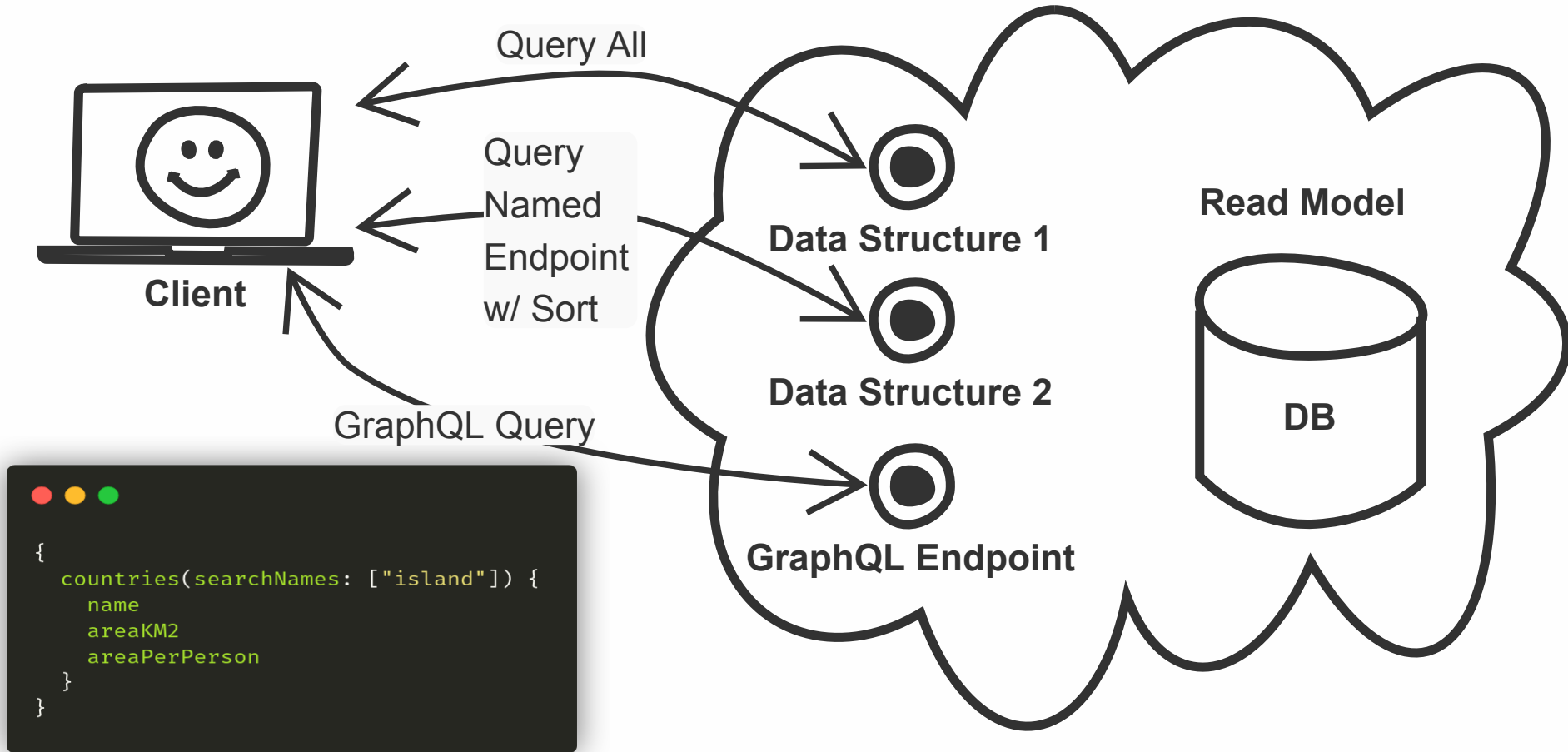
CQRS mit Event Sourcing



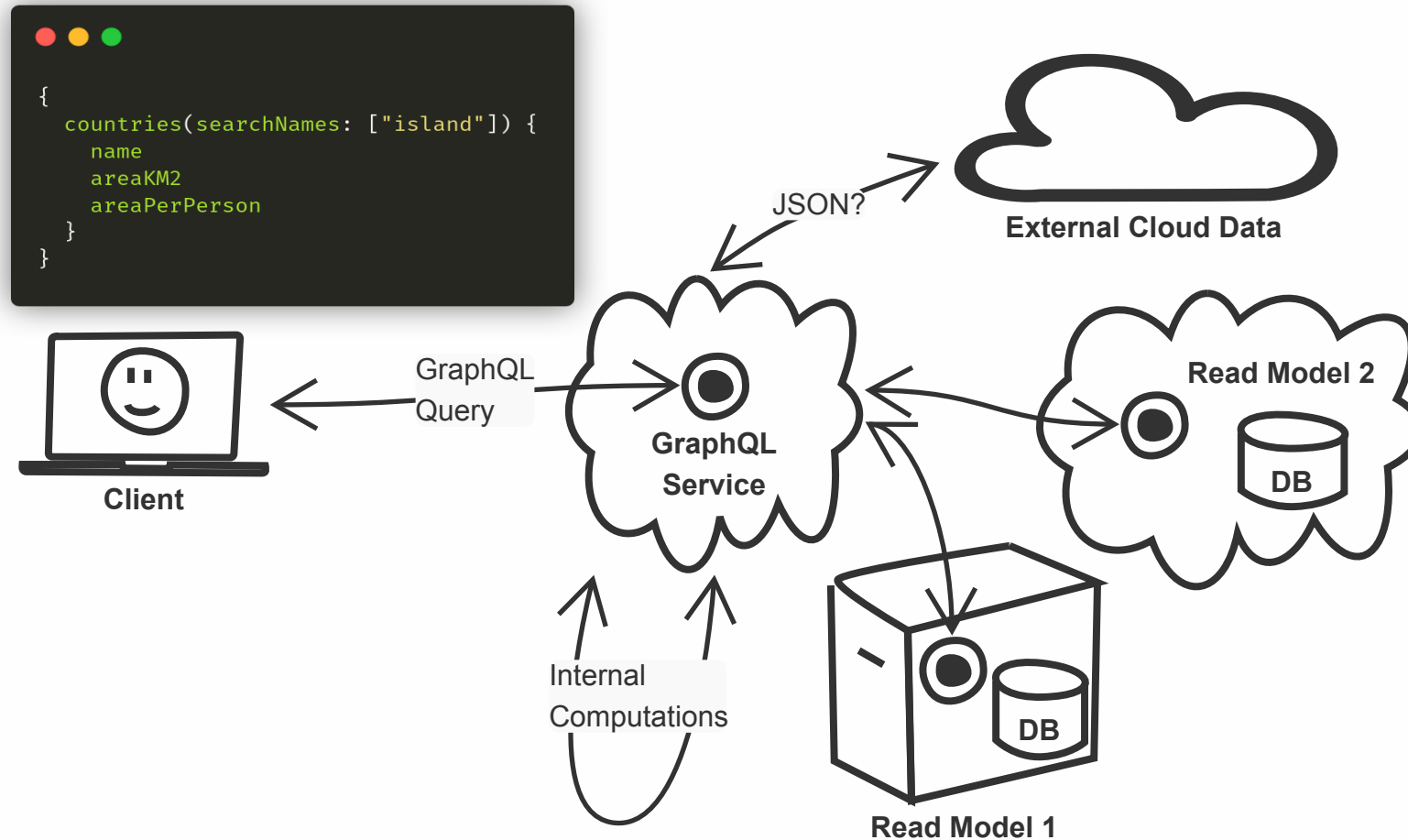
GraphQL Basics



GraphQL Endpoint in Readmodel

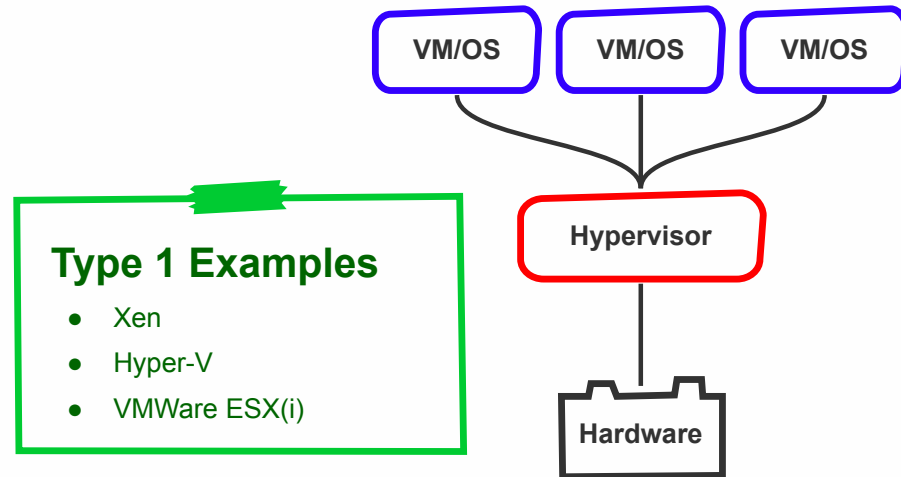


GraphQL - Frontend Service

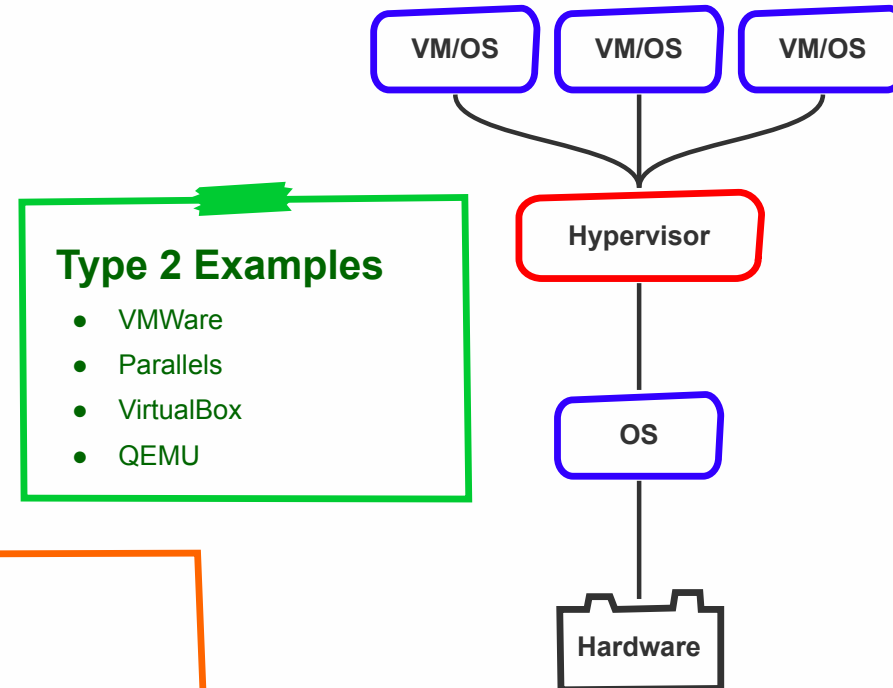


Hypervisors

Type 1 Native Hypervisor



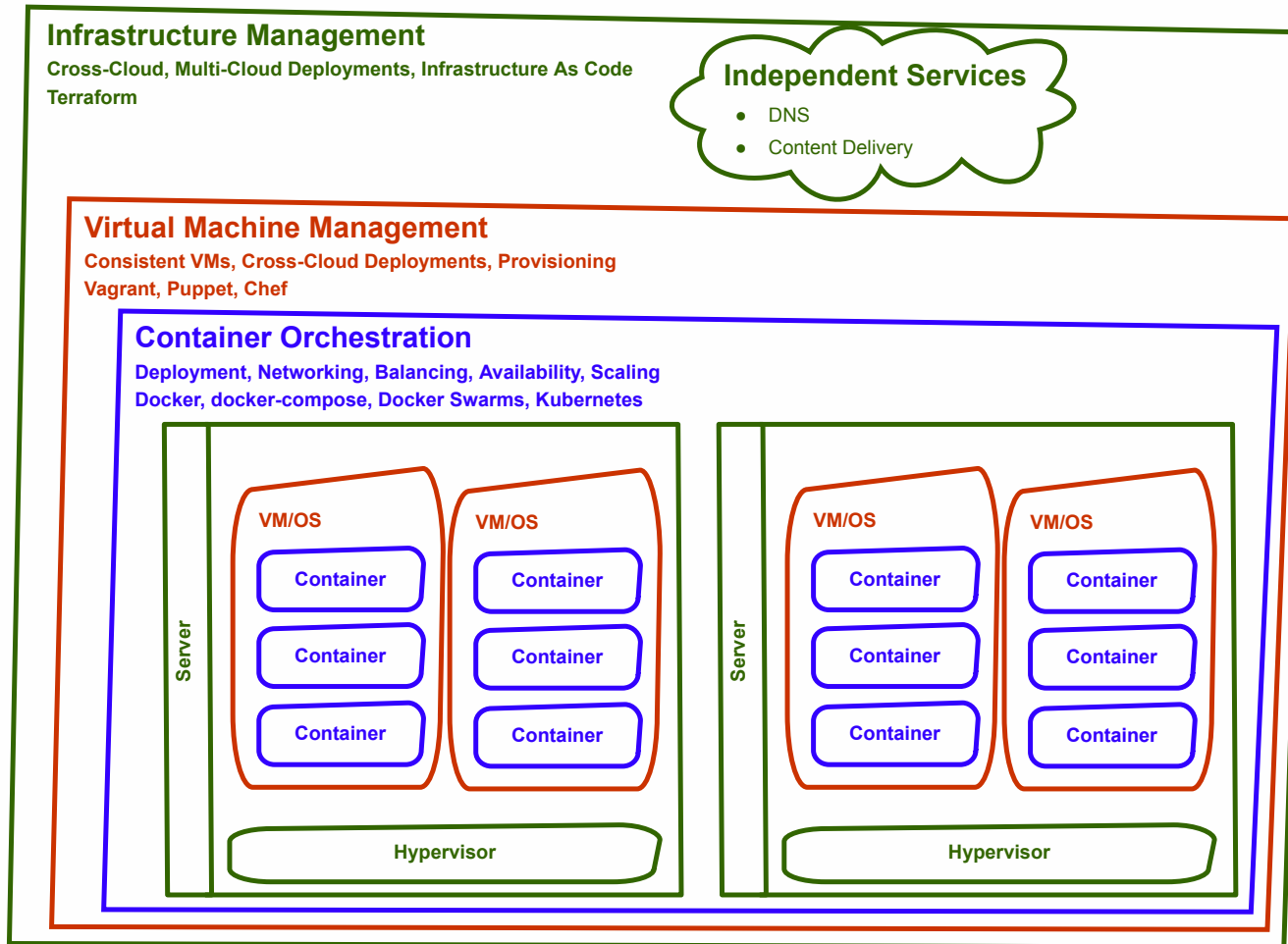
Type 2 Hosted Hypervisor



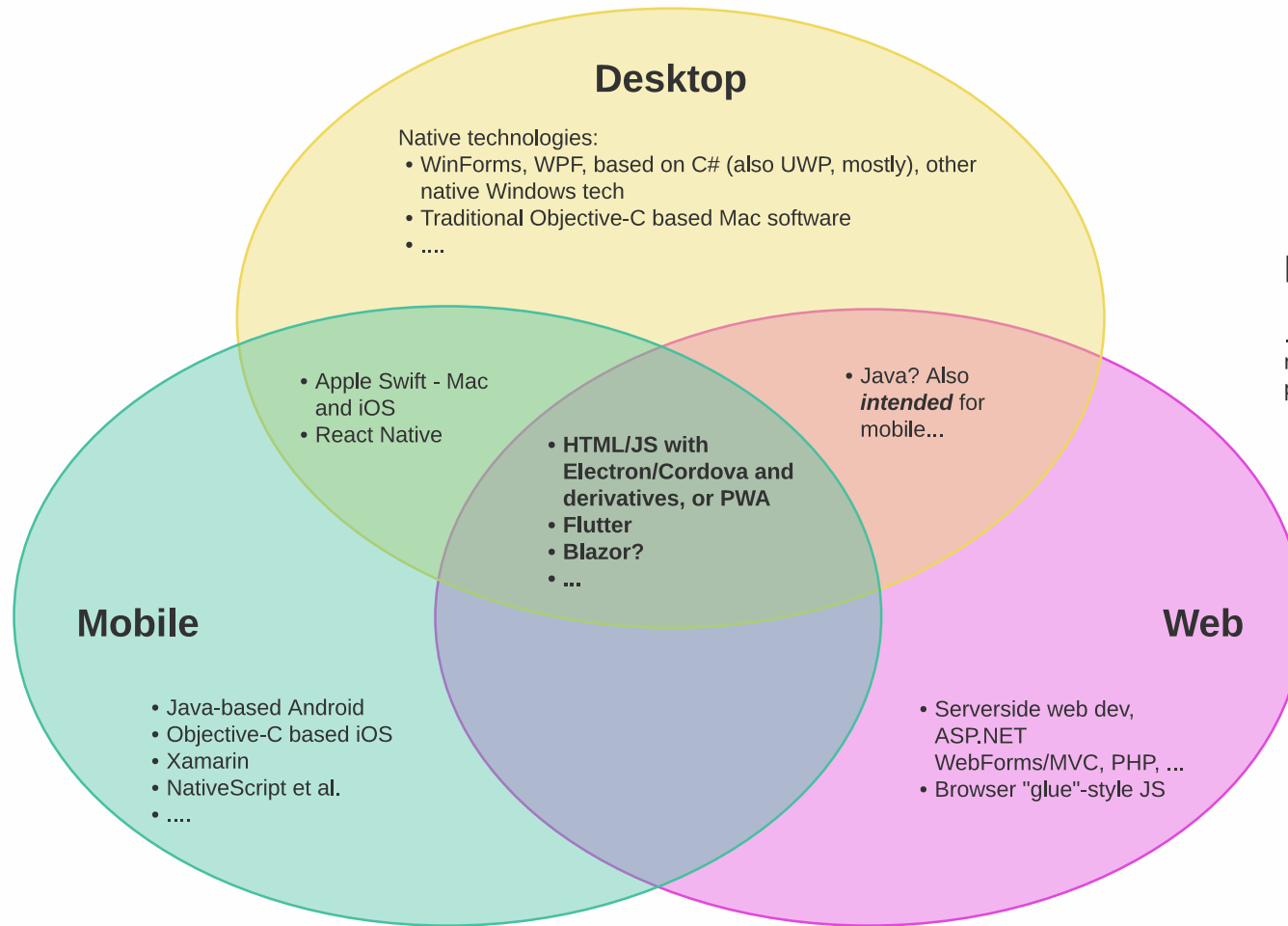
A bit complicated

- KVM - can be type 1 or 2
- Hyper-V really is type 1

Container und VMs



Strategische Entwicklungsplattform



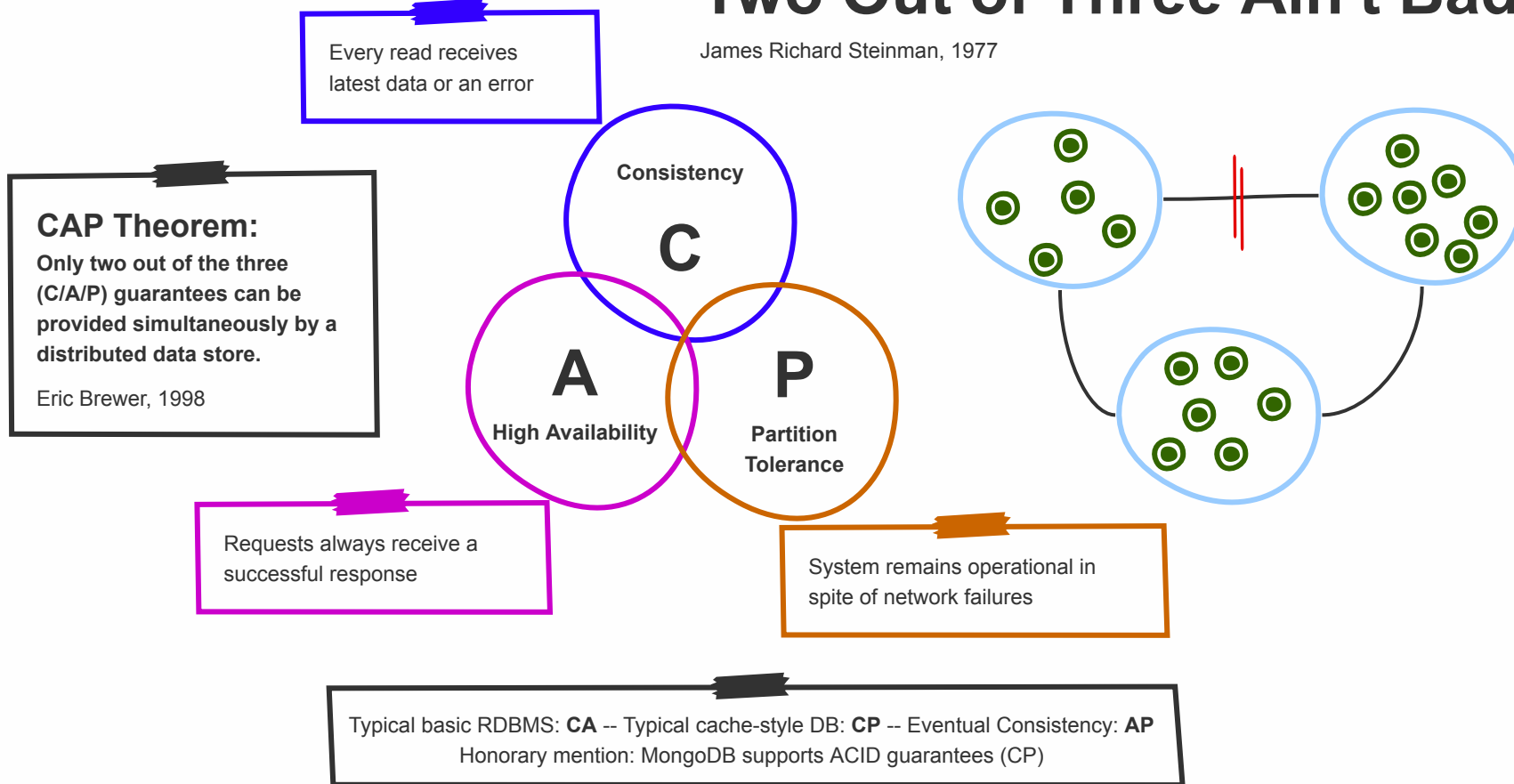
HTML/CSS/JS

... is the most versatile and "open" choice for me (use TS if you prefer). That's my "strategic platform".

CAP Theorem

Two Out of Three Ain't Bad

James Richard Steinman, 1977



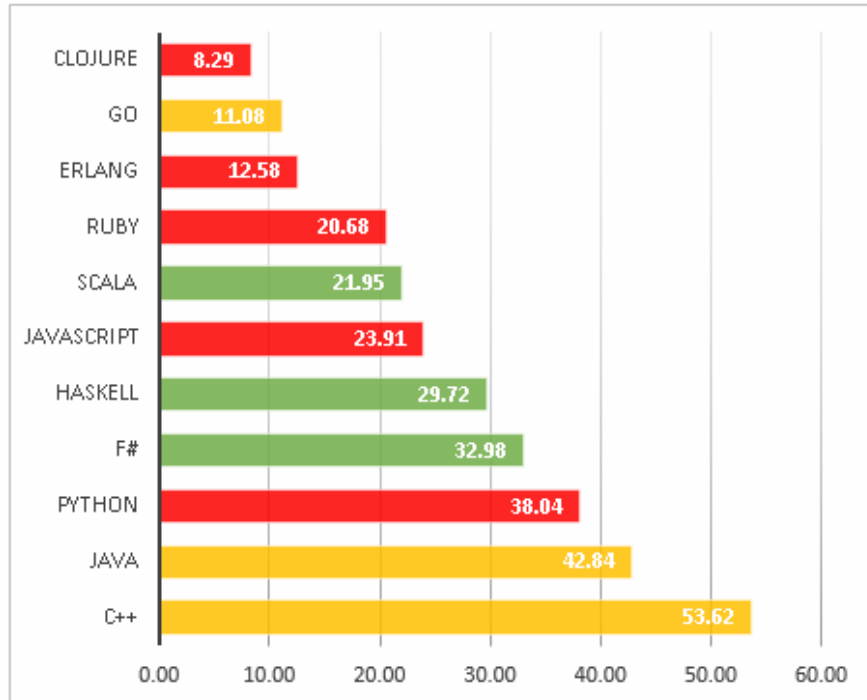
JavaScript vs TypeScript

Languages by bug density - GitHub repos with >100 stars

In green, in the "advanced" static typed languages corner: Haskell, Scala and F#.

In orange, in the "old and boring" static typed languages corner: Java, C++ and Go.

In red, in the dynamic typed language corner: JavaScript, Ruby, Python, Clojure and Erlang.



Daniel Lebrero, May 2016, [The broken promise of static typing](#)

My own prediction is that TDD is the deciding factor. You don't need static type checking if you have 100% unit test coverage. [...]

I predict, that as TDD becomes ever more accepted as a necessary professional discipline, dynamic languages will become the preferred languages.

Uncle Bob Martin, May 2016, [Type Wars](#)

When it comes to bug reduction, I think it's fair to say:

Static types are overrated.

Eric Elliott, June 2016, [The Shocking Secret About Static Types](#)

I will not use the current version of TypeScript in my next large scale application, because the larger the project is, the more the costs of using TypeScript compound.

Eric Elliott, January 2019, [The TypeScript Tax](#)

Sources

- This presentation:
 - <https://oliversturm.github.io/developers-and-architects/basta-spring-2021>
 - PDF download:
<https://oliversturm.github.io/developers-and-architects/basta-spring-2021/slides.pdf>

Thank You

Please feel free to contact me about the content anytime.

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