AZURE DAY

Evolutionary Architectures con .NET e MS Azure

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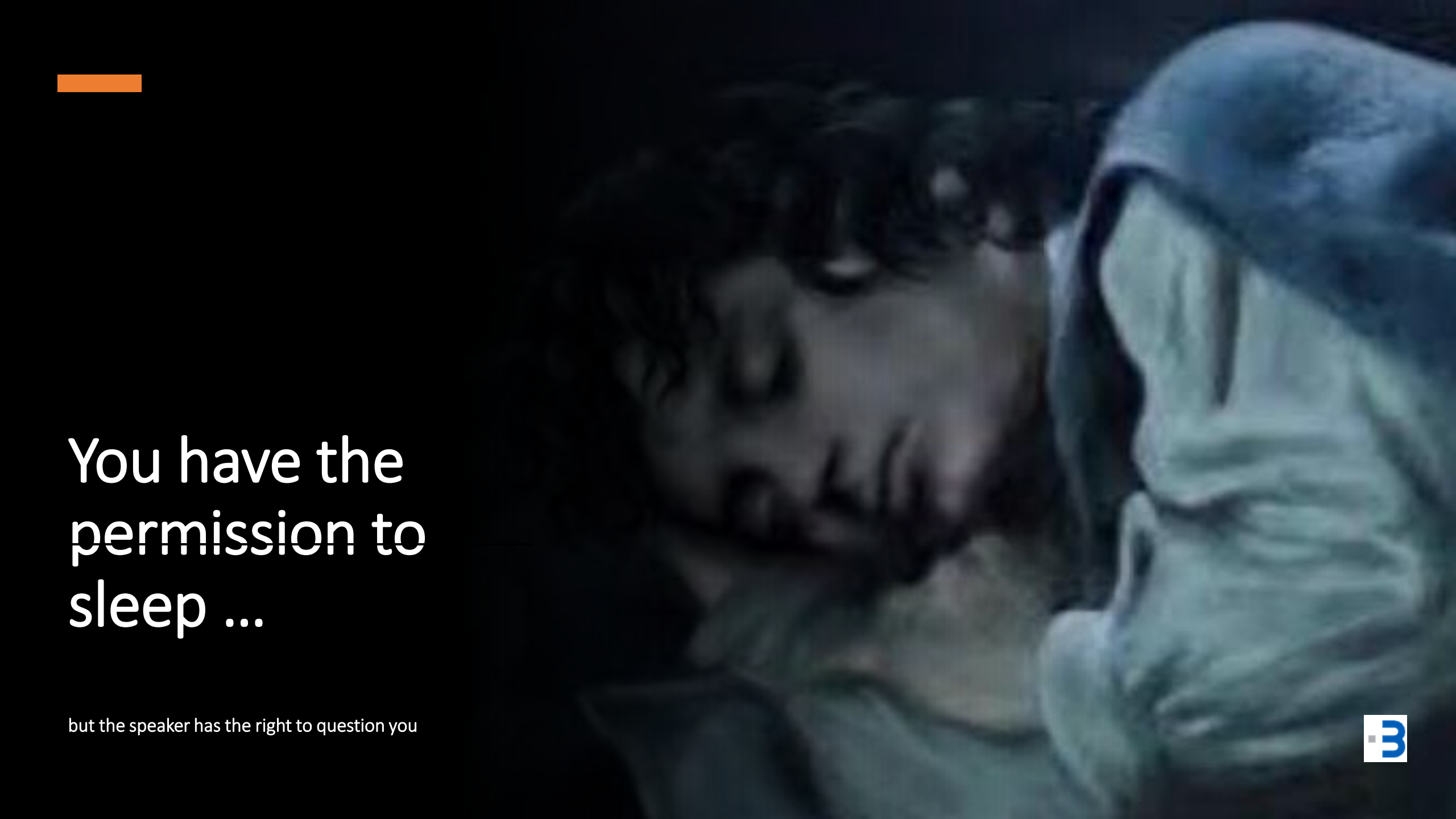


You have the permission to sleep …

but the speaker has the right to question you

Can you help me?

I need a distributed system. Can you help me?

The Fear for Distributed Architectures

Why have architects struggled with decisions in **distributed architectures**?

Because Software Architecture is the stuff you can't ~~Google~~ Bing answers for

Ecosystem Change

How is long-term planning possible under constant change?

Evolutionary Architecture

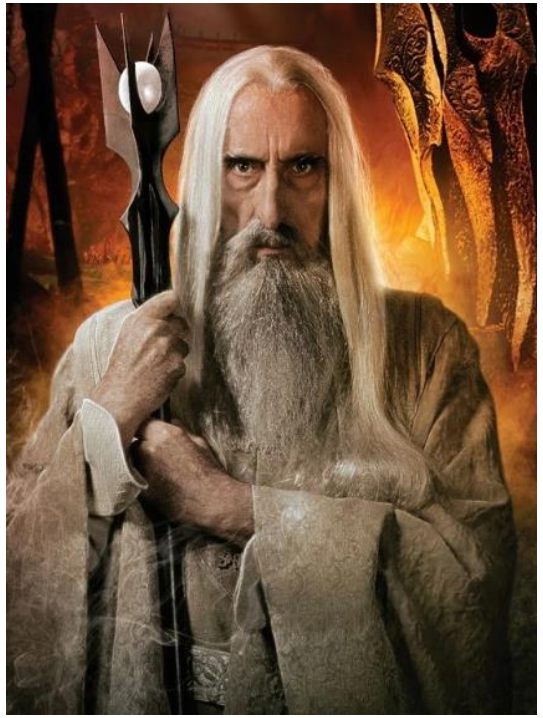
An Evolutionary Architecture supports guided incremental change across multiple dimensions.

Solutions

A ***monolithic*** architecture is a traditional model of a software program, which is built as a unified unit that is self-contained and ***independent*** from other applications.

Microservices are self-contained small services that handle specific business functions within clearly defined boundaries known as ***Bounded Context***.

Traps



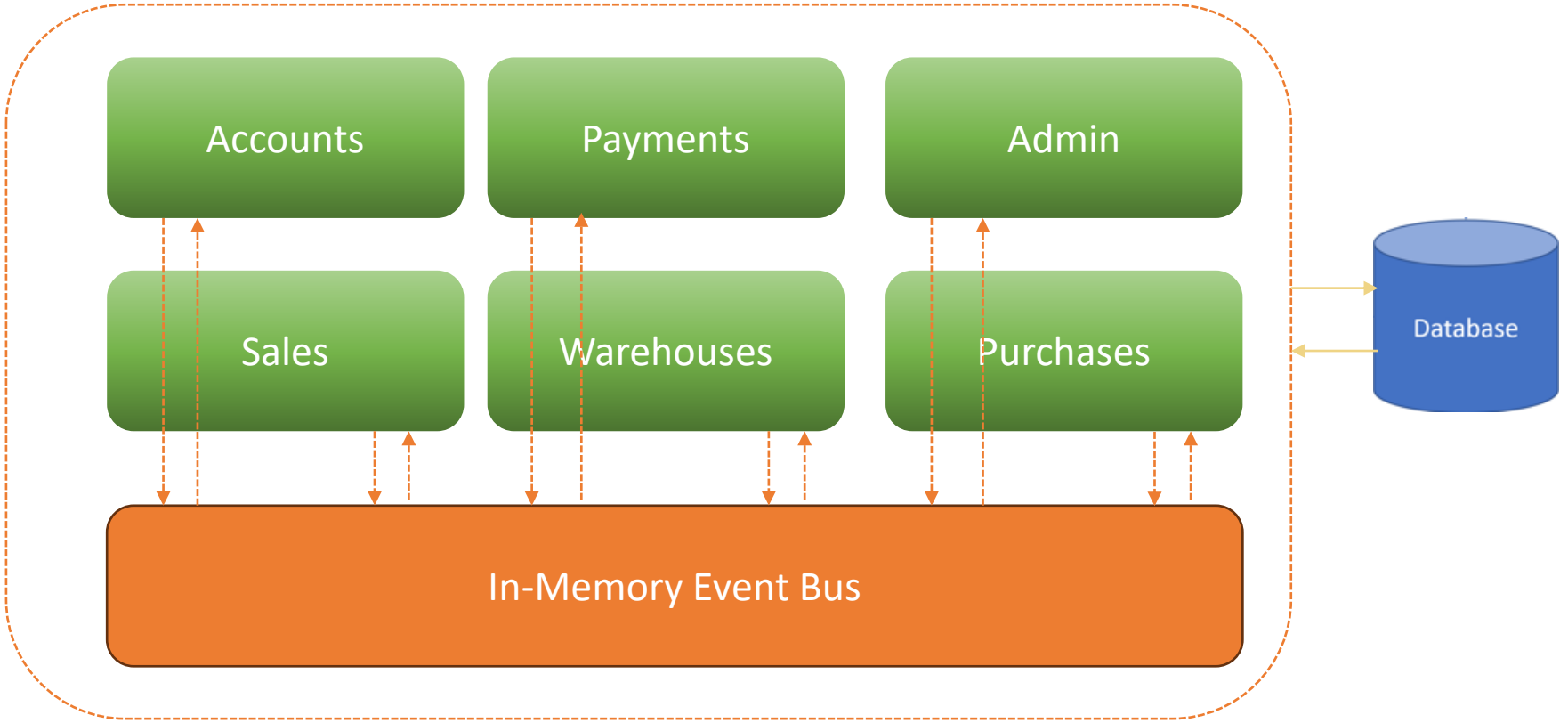
- Database Refactoring
- Choreography
- Contract Testing
- Continuos Delivery
- Evolvability and Experimentation
- Culture of Experimentation

Unknow Unknows

Risk comes from not knowing what you are doing
(Warren Buffet)

If you are think good architecture is expensive, try bad architecture

Incremental



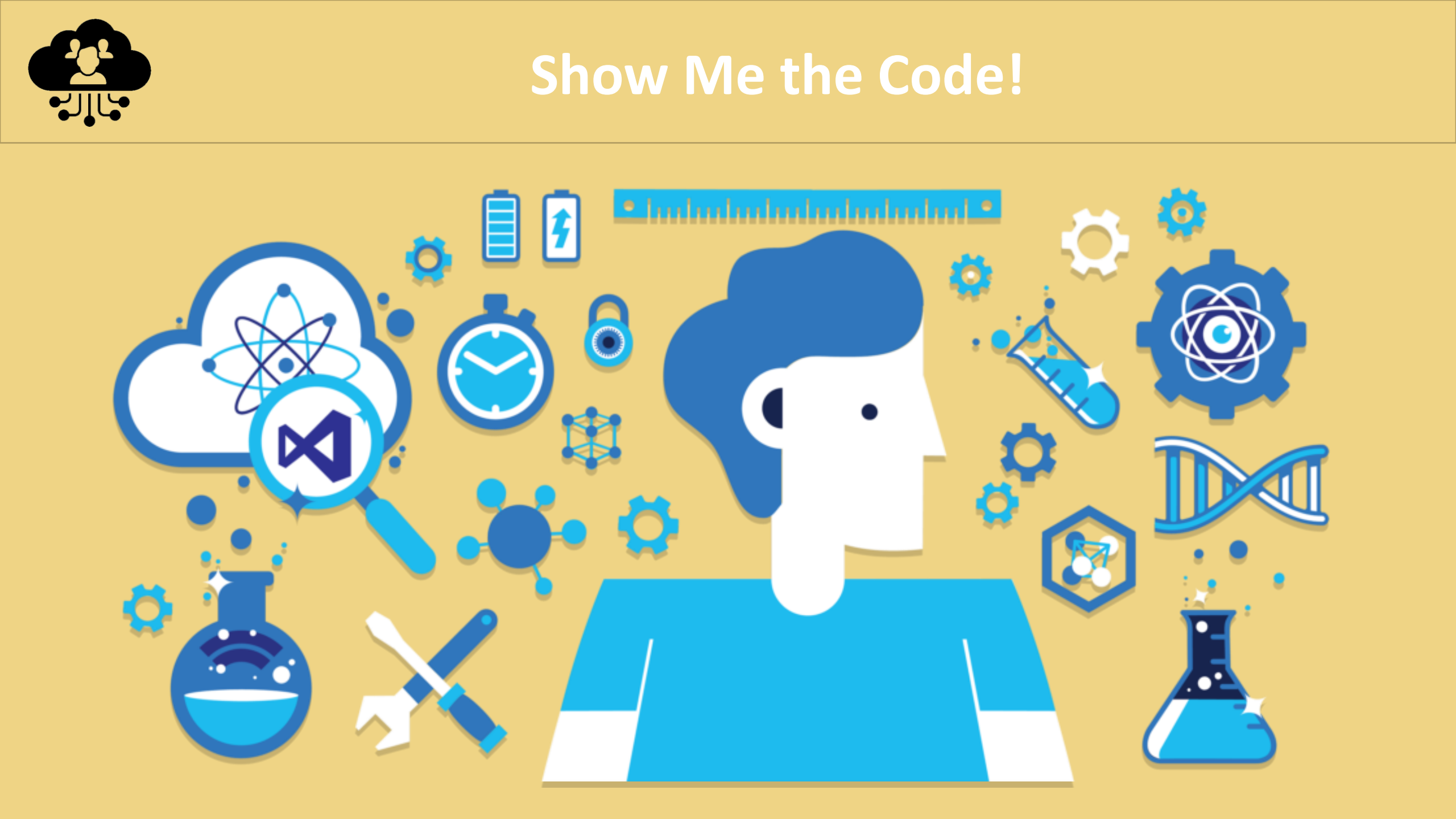
What is a Module?

Low Coupling

Each module should be independent of other modules in the system

High Cohesion

Components of the module are all related thus making it easier to understand what module does as a self-contained subsystem


Show Me the Code!

Guided

Fitness Functions

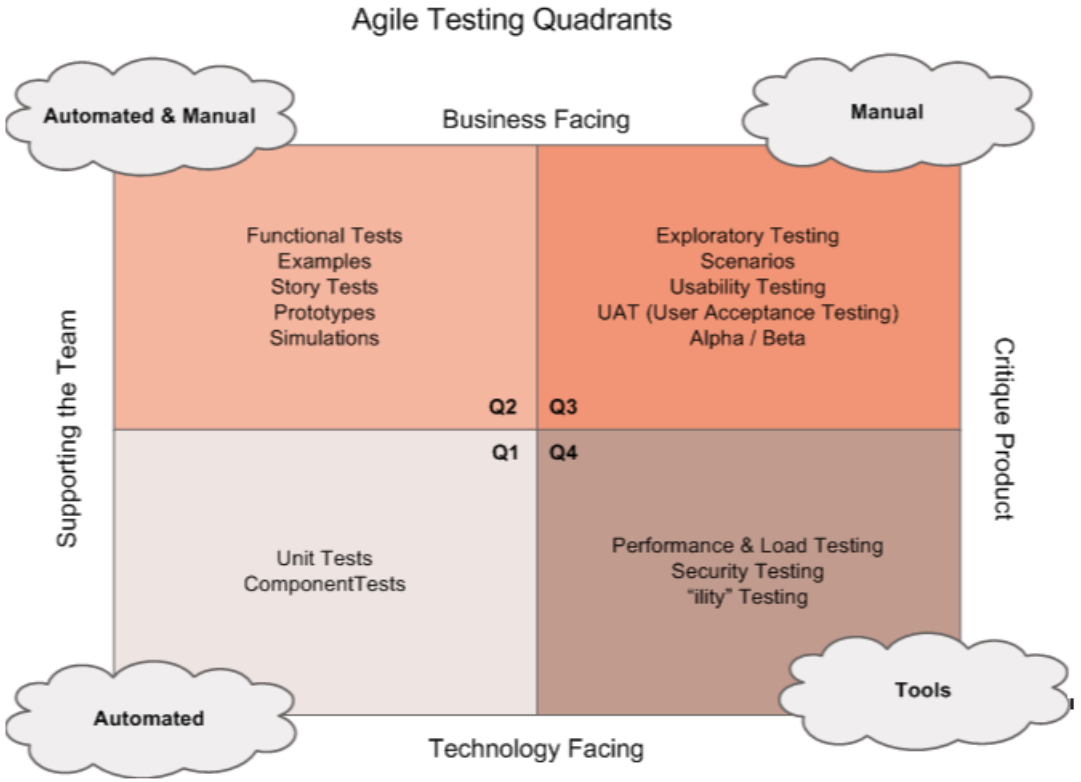
An evolutionary computing fitness function characterizes how close a solution is to desire result

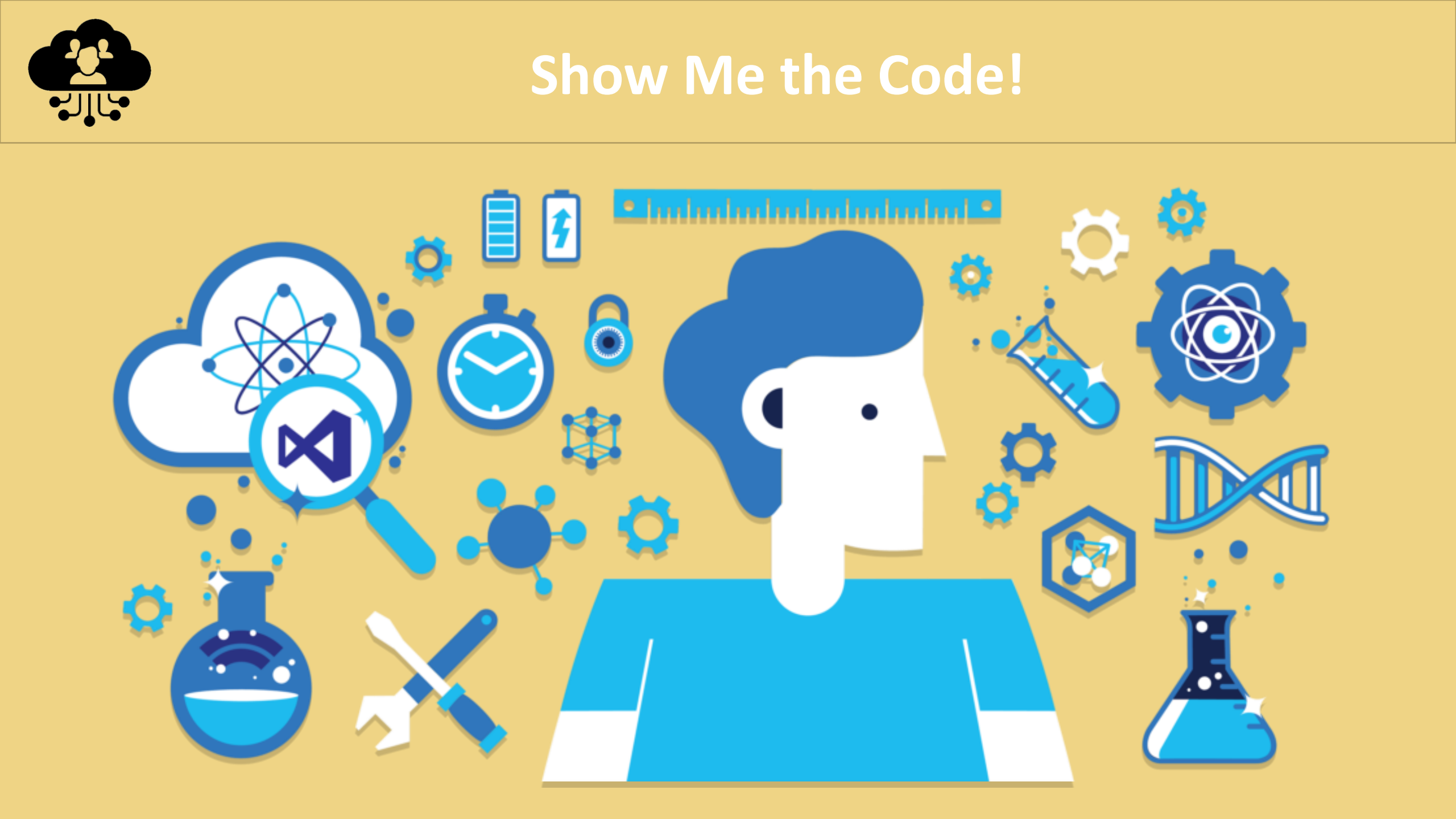
An architectural fitness function characterizes how close a system is to the desired architectural characteristics

The code must be maintanable! (What does that mean?)

Outcomes not Implementations

Test – Test – Test – Test …. Test!

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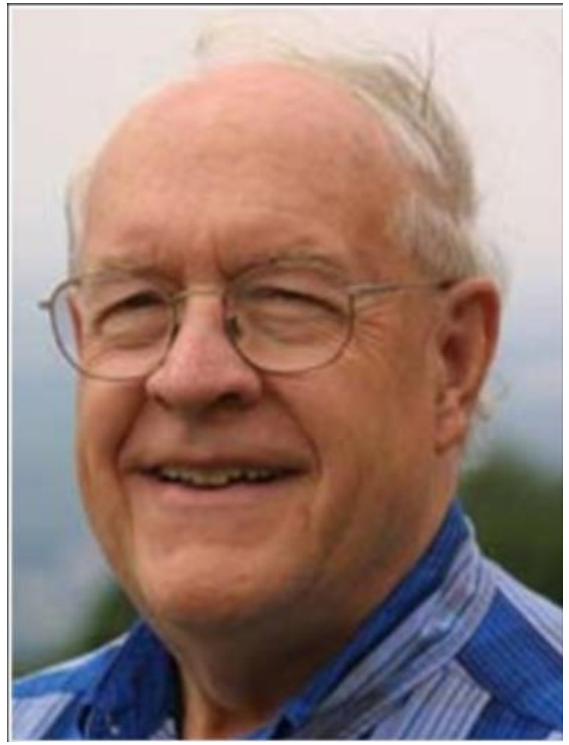
Multiple Dimensions



Application

Operations

Essential

Accidental

Principles

Last Responsible Moment	Architect and develop for evolvability	Postel's Law	Conway's Law
Take decisions at the last responsible moment, because you have the most information	You cannot change a system you don't understand	Be conservative in what you send, be liberal in what you accept	Communication patterns

Laws of Software Architecture

First Law

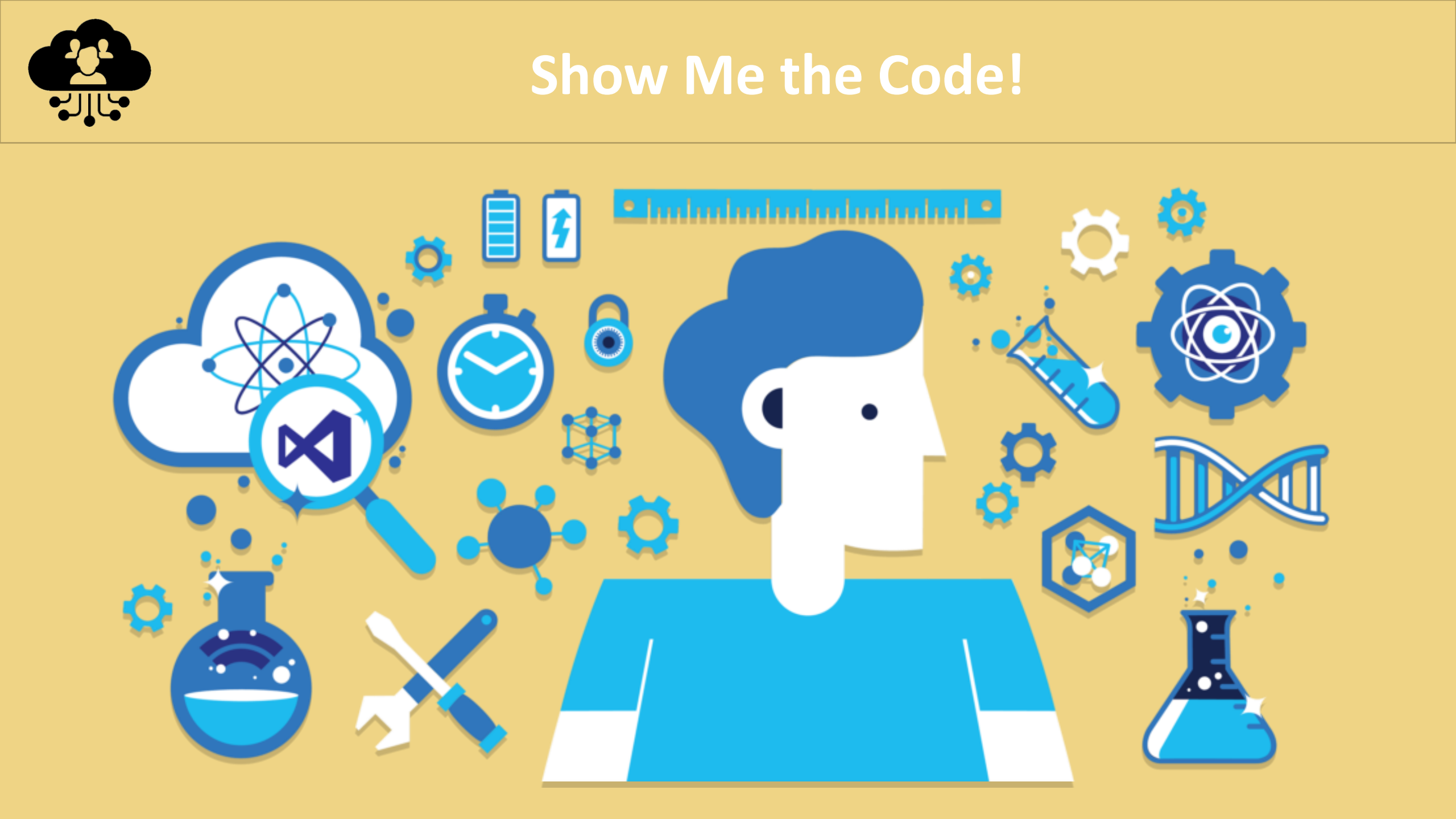
Everything in software architecture is a trade-off

Corollary 1

If an architect thinks they have discovered something that isn't a trade-off, more likely they just haven't yet identified the trade-off

Second Law

Why is more important than how


Show Me the Code!

Ready to Deploy

App Service

AKS

Container Apps

Why Container Apps?

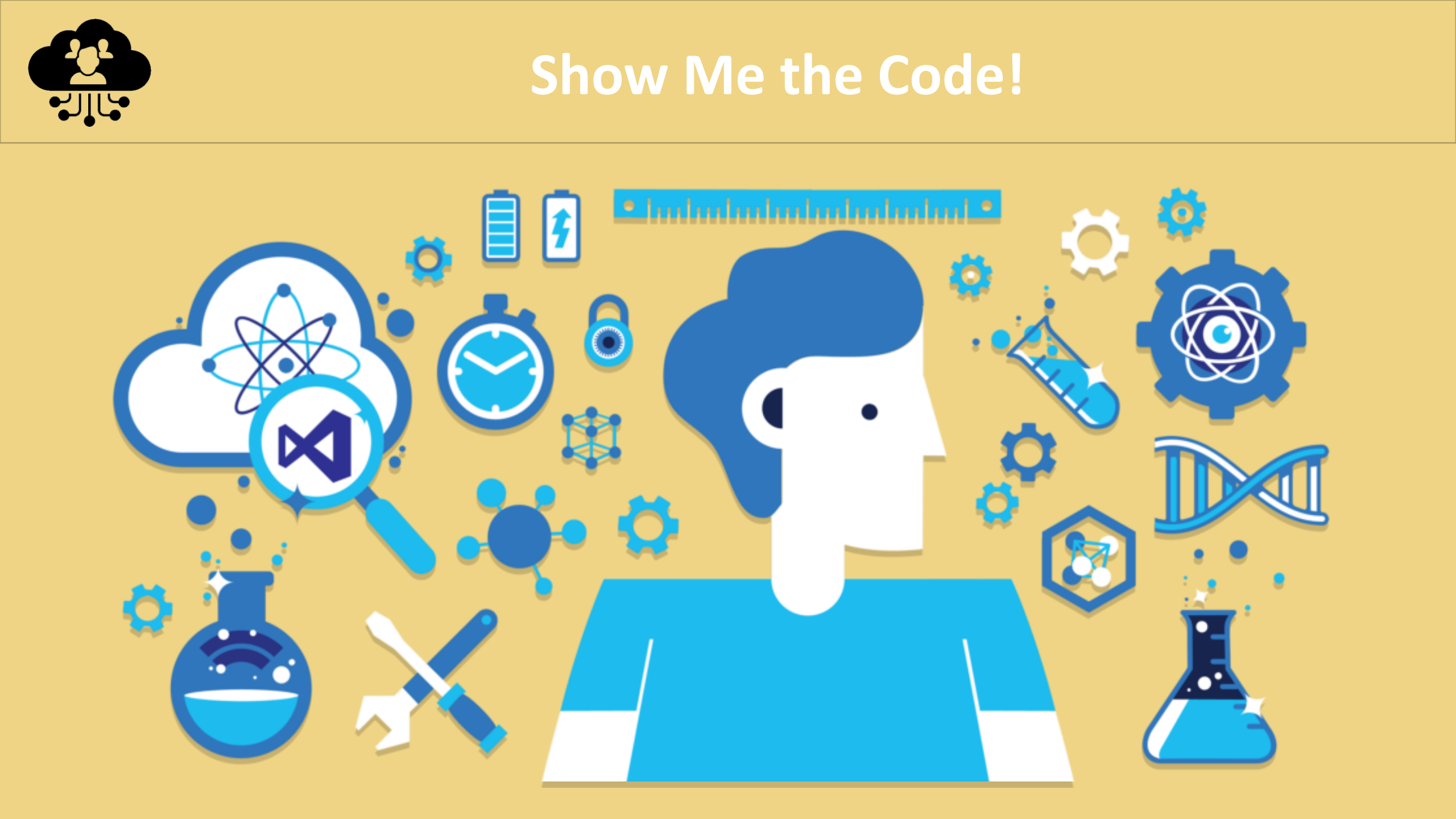
Serverless

- Enables developers to build and run application code without provisioning or managing servers or backend infrastructure

- Easy Configuration
- Zero Maintenance Effort

Costs

- Pay as you go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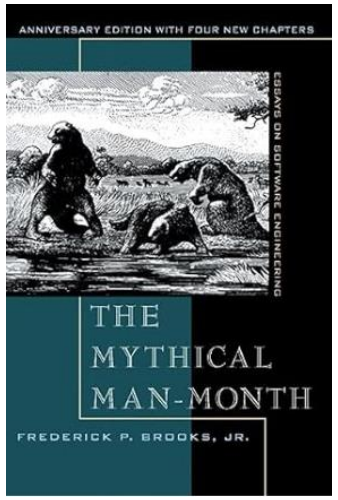
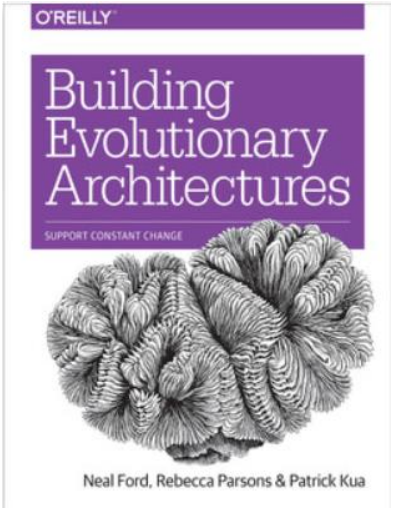
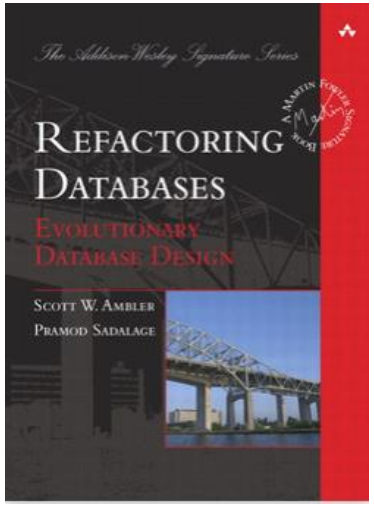
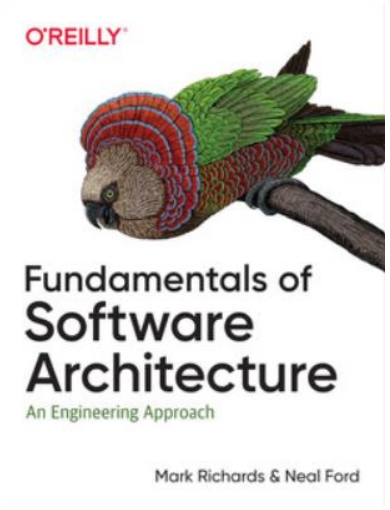
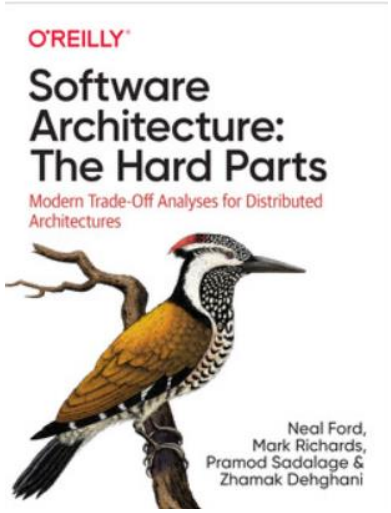
Suggestions











[No Silver Bullet - Essence and Accident in Software Engineering]

[Fitness function-driven development]

[Five Level of Ignorance]

Thank You!!!

IL CORSO

Introduzione a DDD, CQRS ed i loro pattern

Costruire un'applicazione completa (a microservizi) applicando DDD.

Prenota il tuo posto

AGILERELOADED

INTR3 CLOUD

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https://github.com/brewup

https://github.com/cqrs-muflone

https://github.com/ace68

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