

## **CLEAN ARCHITECTURE**

26-03-2020 | 11:00 - 12:30 Jacob Duijzer — VAA Data Works



#### **Introductie**



## **Connecting Innovation in Agri & Food**

"We ontwikkelen ICT en Datascience oplossingen voor Agri & Food bedrijven die verder kijken dan morgen"

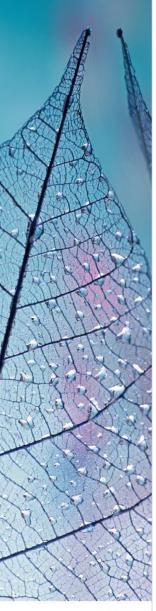




# Inleiding

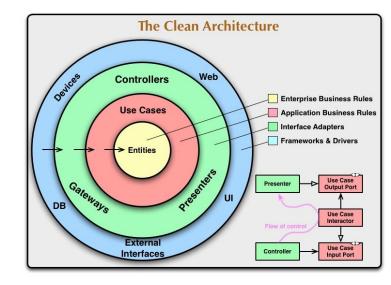
- "Domain-centric" architectuur
- Simpele architectuur (subjectief!)
- Focus op use-cases: elk probleem heeft zijn eigen oplossing
- Modulair: onderlinge modules d.m.v. interfaces
- Snel uitbreidbaar en aanpasbaar ("We managed to transfer reads from a JSON API to a GraphQL data source within 2 hours" netflix)
- Uitermate geschikt om snel (als in agile, niet performance) werkende software op te leveren
- Clean, snel te doorgronden

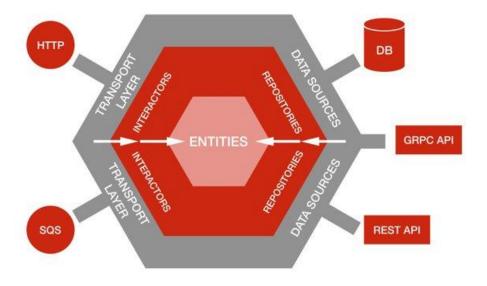




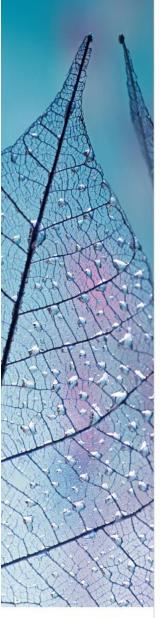
### Verschillende architecturen

- Union Architecture
- Hexagonal Architecture
- Ports and adapters









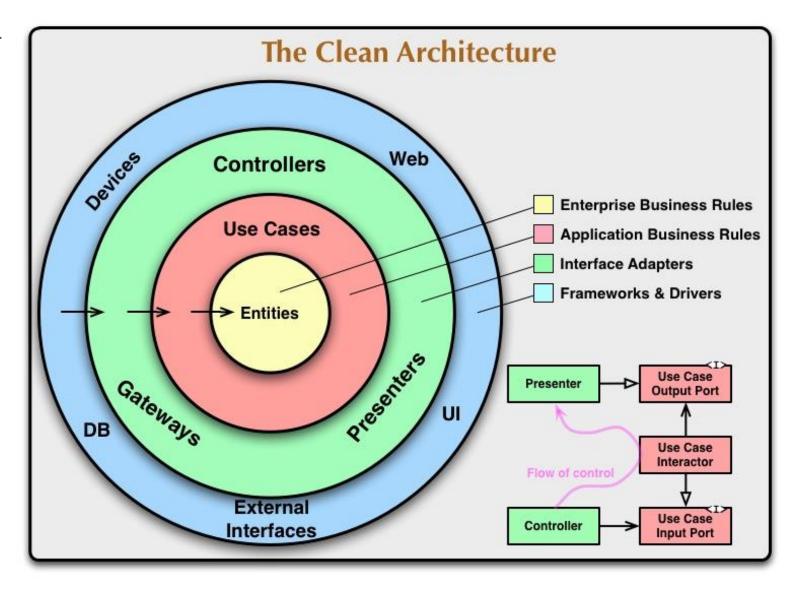
#### Domain-centric architectuur

Entities: Entities encapsulate enterprisewide business rules. An entity can be an object with methods, or it can be a set of data structures and functions.

Use cases: Use cases orchestrate the flow of data to and from the entities, and direct those entities to use their enterprise-wide business rules to achieve the goals of the use cases. Interface adapters: Adapters that convert data from the format most convenient for the use cases and entities, to the format most convenient for some external agency such as a database or the

Web.Frameworks and drivers: Glue code to connect UI, databases, devices etc.to the inner circles.

Program Flow: Starts on the outside and endson the outside, but can go through several layers (user clicks a button, use case loads some entities from DB, entities decide somethingthat is presented on the UI)







#### Bronnen

- Clean Code by Uncle Bob
- Clean Architecture Cheat Sheet (PDF)
- Netflix blog about Clean Architecture
- Clean Architecture: Patterns, Practices, and Principles (pluralsight)
- Nuget Package: JacobsApps.CleanArchitectureProjectTemplate.CSharp
- https://github.com/vaa-rosmalen/CleanArchitectureSamples





# **SHOWTIME**



