

# Module 02:

## "Introducing Clean Architecture"



# Agenda

- ▶ Introduction
- ▶ **What is Clean Architecture?**
- ▶ Inside Clean Architecture
- ▶ Summary

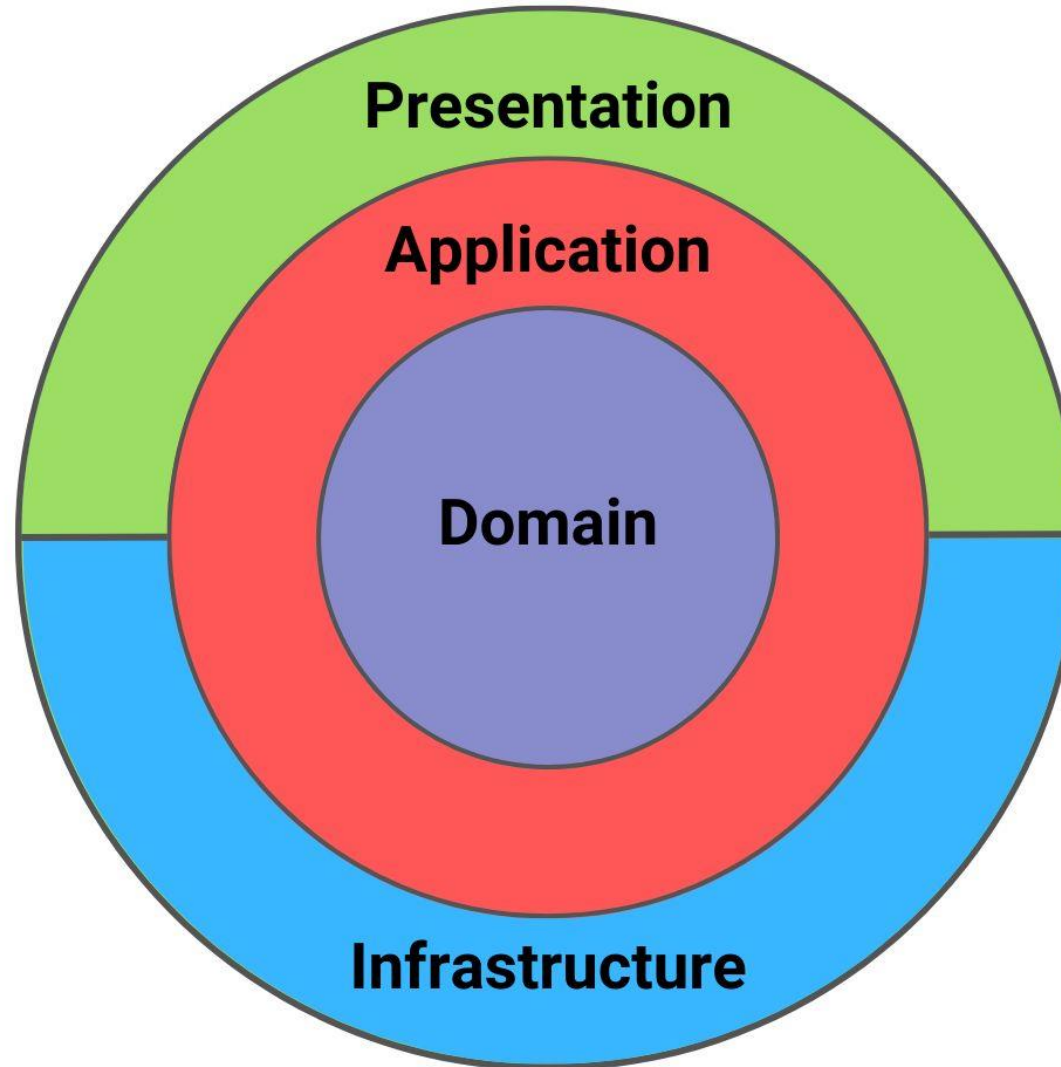


# What is Clean Architecture?

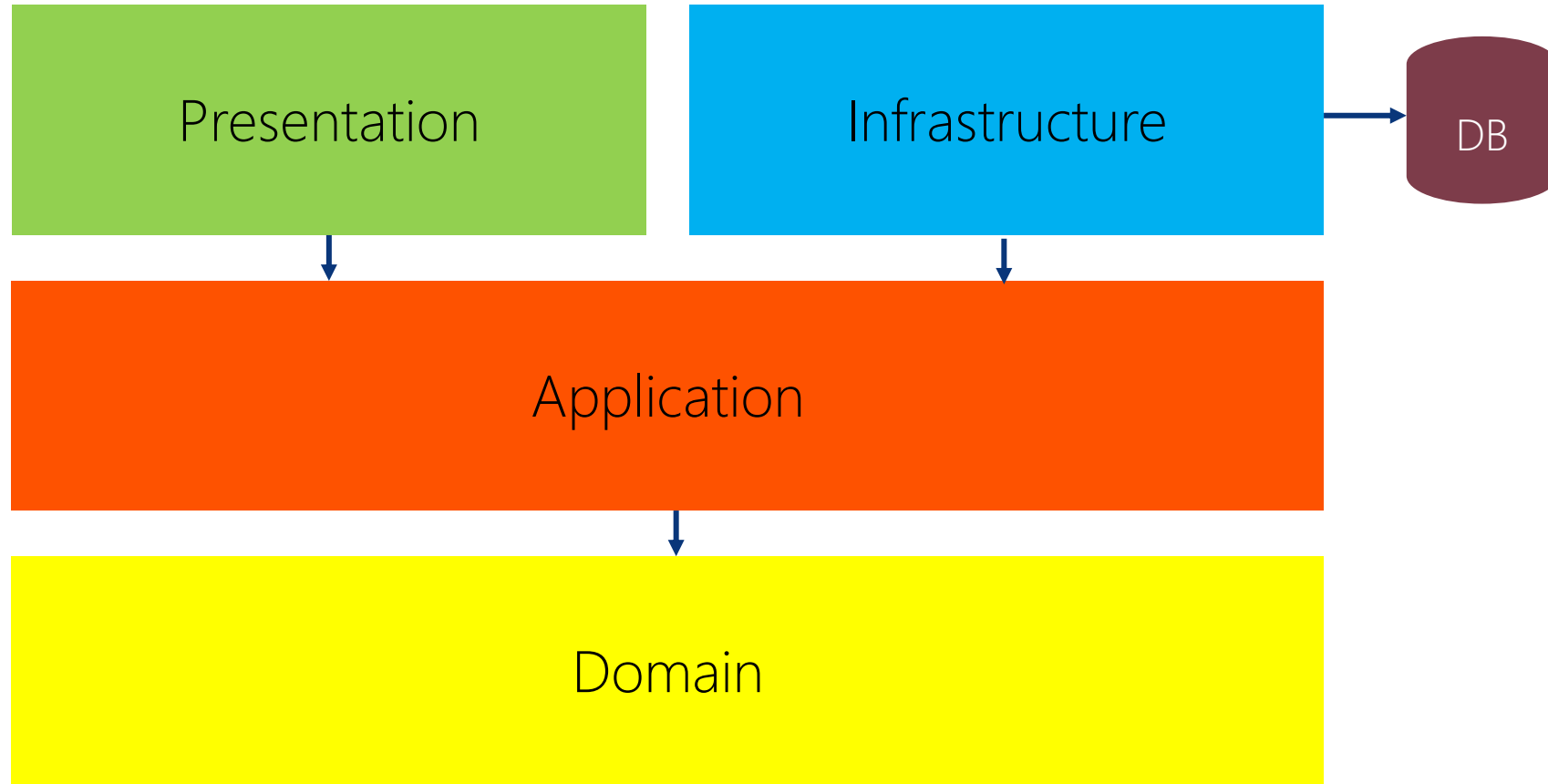
- ▶ Domain-centric architecture with specific fixed set of layers / assemblies
- ▶ References between assemblies always point inwards!
- ▶ Not mandatory, but supported by many open-sources tools
  - MediatR
  - FluentValidation
  - ErrorOr
  - ...



Usually Presented as...



# Clean Architecture



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# Clean Architecture Mantras

- "Inner layers contain business logic"
- "Outer layers contain infrastructure and external interactions"



# Presentation Layer

- ▶ Handling interactions with outside world
  - Users
  - Other systems
- ▶ Presenting and translating data
- ▶ Set up startup and configuration
- ▶ Controlling the Application Layer





# Application Layer

- ▶ Orchestrate the application's use cases
- ▶ Retrieve and manipulate Domain objects



# Infrastructure Layer

- ▶ Handling data persistence
  - Database
  - File system
- ▶ Interacting with other services and external frameworks
  - Message queues
  - HTTP clients
- ▶ Interacting with system dependencies
  - System clock
- ▶ Retrieve and manipulate Domain objects

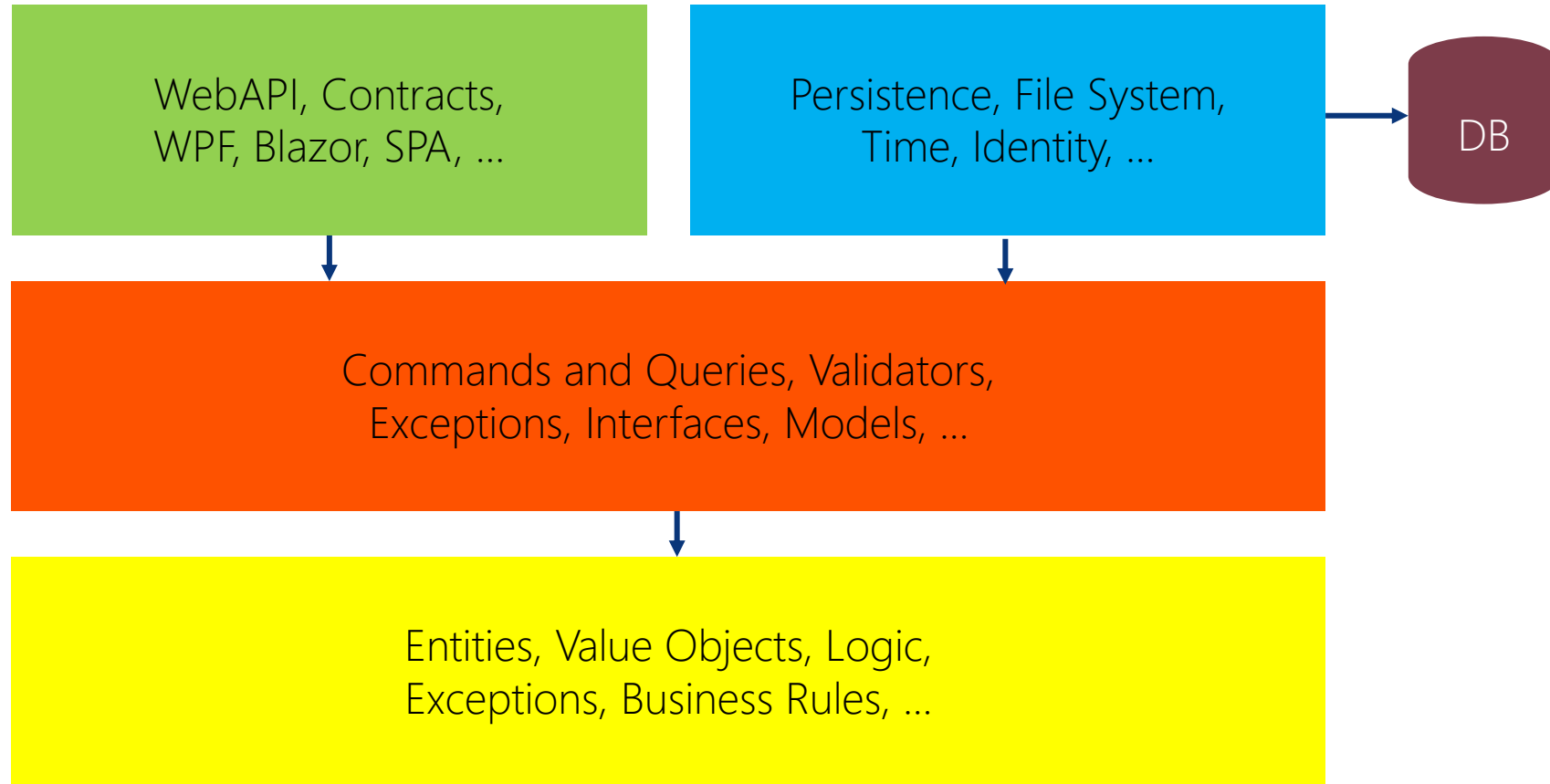


# Domain Layer

- ▶ Defining domain models and errors
  - Entities
  - Value objects
  - ...
- ▶ Performing domain logic
- ▶ Enforcing business rules



# A More Detailed Look Inside



# Summary

- ▶ Introduction
- ▶ What is Clean Architecture?
- ▶ Inside Clean Architecture



