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## **Domain Driven Design**

#### What is DDD?

ABP framework provides an **infrastructure** to make **Domain Driven Design** based development easier to implement. DDD is <u>defined in the Wikipedia</u> as below:

**Domain-driven design** (**DDD**) is an approach to software development for complex needs by connecting the implementation to an evolving model. The premise of domain-driven design is the following:

- Placing the project's primary focus on the core domain and domain logic;
- Basing complex designs on a model of the domain;
- Initiating a creative collaboration between technical and domain experts to iteratively refine a conceptual model that addresses particular domain problems.

### **Layers & Building Blocks**

ABP follows DDD principles and patterns to achieve a layered application model which consists of four fundamental layers:

- **Presentation Layer**: Provides an interface to the user. Uses the *Application Layer* to achieve user interactions.
- **Application Layer**: Mediates between the Presentation and Domain Layers. Orchestrates business objects to perform specific application tasks. Implements use cases as the application logic.
- **Domain Layer**: Includes business objects and the core (domain) business rules. This is the heart of the application.
- **Infrastructure Layer**: Provides generic technical capabilities that support higher layers mostly using 3rd-party libraries.

DDD mostly interest in the **Domain** and the **Application** layers, rather than the Infrastructure and the Presentation layers. The following documents explains the **infrastructure** provided by the ABP Framework to implement **Building Blocks** of the DDD:

- Domain Layer
  - Entities & Aggregate Roots
  - Repositories
  - Domain Services
  - Value Objects
  - Specifications
- Application Layer
  - Application Services
  - o Data Transfer Objects (DTOs)
  - Unit of Work

# The Ultimate DDD Implementation Guide

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See the <u>Implementing Domain Driven Design</u> guide as a **complete** reference. The Guide explains the Domain Driven Design and introduces explicit rules and examples to give a deep understanding of the implementation details.

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