

### **Domain Driven Design**

#### **Audience Course Domain Driven Design**

The course Domain Driven Design is intended for software developers and software architects who want to use DDD in application development.

#### **Prerequisites Course Domain Driven Design**

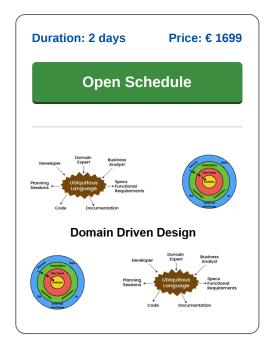
Knowledge of Object Oriented Analysis and Design and design principles such as SOLID and DRY.

#### **Realization Training Domain Driven Design**

Presentations by the trainer using slides and demos that are alternated with practical exercises.

#### **Certificate Domain Driven Design**

After successfully completing the course, participants will receive a certificate of participation in Domain Driven Design.



## **Content Course Domain Driven Design**

In the course Domain Driven Design, participants learn to apply the principles of DDD to the design of applications. The components of the Domain-driven Design model are discussed and knowledge is gained of the DDD methodologies in the design of application architectures.

#### **Intro DDD**

This module introduces Domain-Driven Design (DDD) and its key principles. Topics include domains, contexts, benefits and challenges of DDD, interviews with domain experts, and differentiating strategic versus tactical DDD. The differences from traditional design are also discussed.

#### **Domain Understanding**

Participants learn to identify domains such as core, supporting, and generic ones. Subdomains and the role of domain experts are explored through event storming, business rules, workflows, and constraints discovery.

#### **Bounded Contexts**

This module focuses on understanding bounded contexts and their role in separating different subdomains. Learners explore context maps, service interactions, and relationships such as partnership, shared kernel, customer-supplier, open host service, and anti-corruption layers.

#### **Ubiquitous Language**

Participants develop a shared language between developers and domain experts. Topics include message flowing, assigning responsibilities, collaborative modeling techniques like example mapping, and using documents and diagrams in DDD.

#### **Building Domain Models**

This module covers the construction of domain models, including entities, value objects, aggregates, and their roots. Learners work with repositories, factories, domain events, and services to capture business behavior and structure the domain.

#### **DDD Application Architecture**

This module explores architecture styles used in DDD such as layered and hexagonal architecture. Learners apply CQRS, integrate DDD into microservices and event-driven architectures, and examine connections with BDD. Common pitfalls and anti-patterns are also discussed.



# **Modules Course Domain Driven Design**

Module 1: Intro DDD	Module 2: Domain Understanding	Module 3: Bounded Contexts
What is Domain-Driven Design?	Identifying Domains	Understanding Bounded Contexts
Basic concepts of DDD	Core Domain	Domain Relationships
Domains and Contexts	Supporting Domain	Purpose of Subdomains
Components of DDD	Generic Domains	Context maps
Benefits of DDD	Recognizing Subdomains	Services Interaction
Challenges in adopting DDD	Role of Domain Experts	Context Relationships
Domain Expert Interviews	Event Storming Workshop	Partnership and Shared Kernel
Knowledge Crunching	Exploring Business Rules	Customer-Supplier
Strategic and Tactical DDD	Exploring Workflows	Open Host Service
DDD vs. Traditional Design	Exploring Constraints	Anti-Corruption Layer
Module 4: Ubiquitous Language	Module 5: Building Domain Models	Module 6: DDD Application Architecture
Avoid Miscommunication	Entity Modeling	Layered Architecture in DDD
Developers and Domain Experts	Value Objects	Hexagonal Architecture
	Value Objects Unique Identity Attribute	Hexagonal Architecture Ports and Adapters
Developers and Domain Experts Bridging the Gap Defining Ubiquitous Language	,	
Bridging the Gap	Unique Identity Attribute	Ports and Adapters
Bridging the Gap Defining Ubiquitous Language Message Flowing	Unique Identity Attribute Role of Aggregates	Ports and Adapters Command Query Segregation
Bridging the Gap Defining Ubiquitous Language	Unique Identity Attribute Role of Aggregates Aggregate Roots	Ports and Adapters Command Query Segregation CQRS Pattern
Bridging the Gap Defining Ubiquitous Language Message Flowing Assign Responsibilities Collaborative Modeling	Unique Identity Attribute Role of Aggregates Aggregate Roots Repositories and Factories	Ports and Adapters Command Query Segregation CQRS Pattern DDD in Microservices Architecture
Bridging the Gap Defining Ubiquitous Language Message Flowing Assign Responsibilities	Unique Identity Attribute Role of Aggregates Aggregate Roots Repositories and Factories Domain Events	Ports and Adapters Command Query Segregation CQRS Pattern DDD in Microservices Architecture Event-Driven Architecture
Bridging the Gap Defining Ubiquitous Language Message Flowing Assign Responsibilities Collaborative Modeling Example Mapping	Unique Identity Attribute Role of Aggregates Aggregate Roots Repositories and Factories Domain Events Capturing Business Changes	Ports and Adapters Command Query Segregation CQRS Pattern DDD in Microservices Architecture Event-Driven Architecture Linkage with BDD