Domain Driven Design

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Agenda

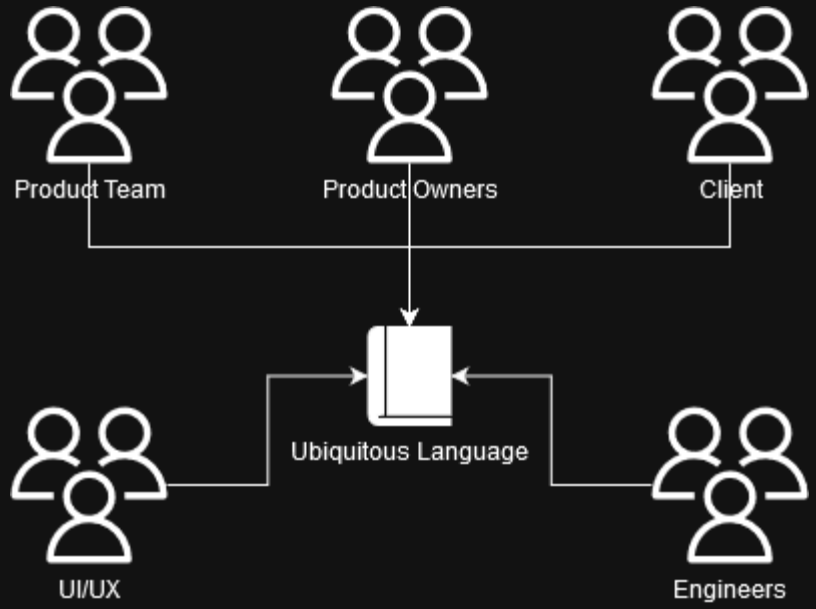
- Introduction to Domain-Driven Design
- Ubiquitous Language
- Bounded Context
- Entities, Value Objects, and Aggregates
- Domain/Integration Events
- Strategic Design
- Implementing DDD
- Benefits of DDD
- Q&A

Introduction to Domain-Driven Design

- What is DDD?
- Key concepts
  - Ubiquitous Language
  - Bounded Context
  - Entities, Value Objects, and Aggregates
  - Domain Events

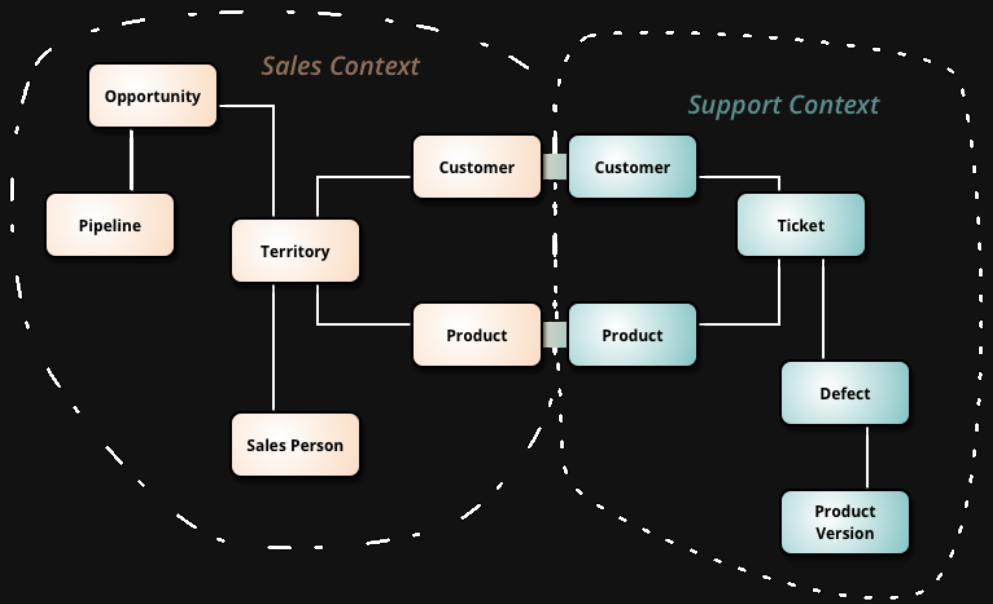
Ubiquitous Language

A common, shared language between developers and domain experts



Bounded Context

A boundary within which a particular model and set of terms apply.



Entities, Value Objects, and Aggregates

Entities

Objects that have a distinct identity

e.g. Product

Color: Red

Weight: 0.5kg

Sr #: 12345

Color: Red

Weight: 0.5kg

Sr #: 95316

Value Objects

Objects without a distinct identity; defined by their attributes

e.g. Price

Currency: PKR

Value: 30

Currency: PKR

Value: 30

Aggregates

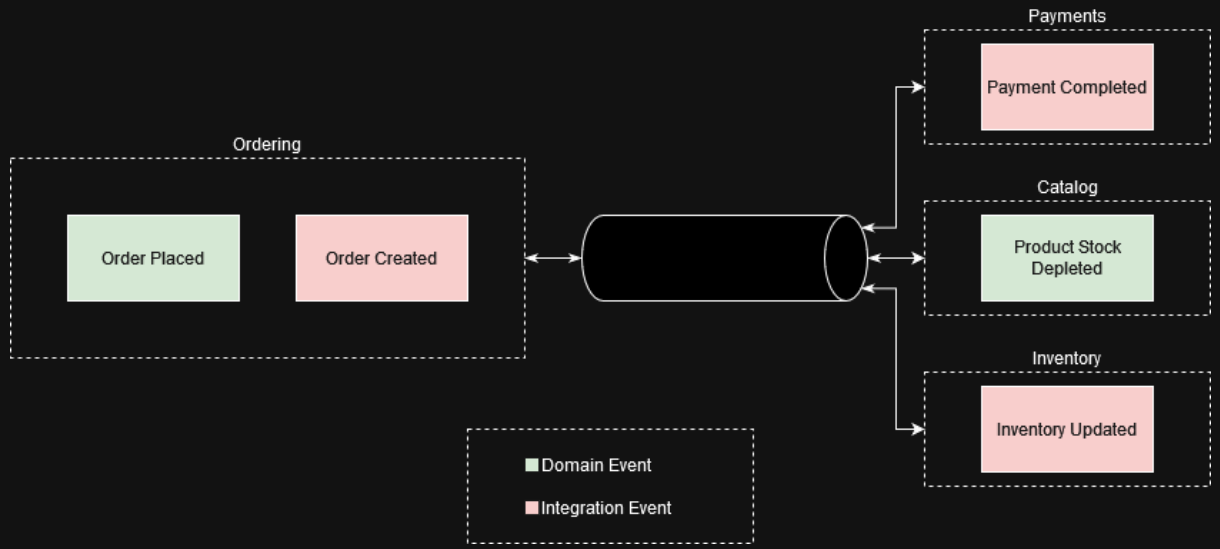
Clusters of related entities and value objects

e.g. Order

Order
+DateTime OrderDate +Address Address +int BuyerId +OrderStatus OrderStatus +string Description +bool IsDraft +List OrderItems +int PaymentMethodId

Domain/Integration Events

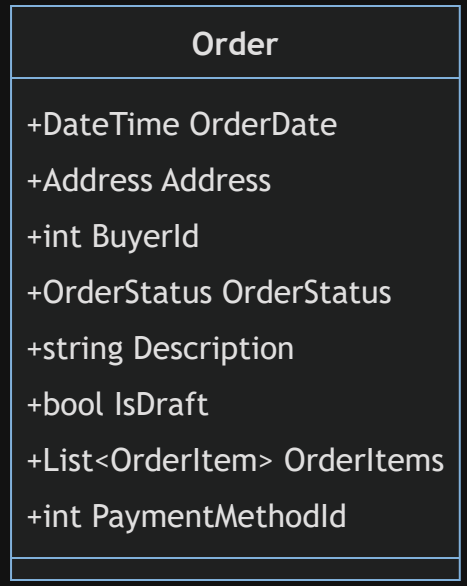
An event that captures a state change WITHIN/BETWEEN the bounded context(s)



Strategic Design

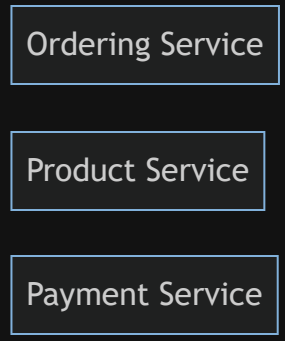
The high-level design decisions that shape the architecture and organization of the software

Aggregates

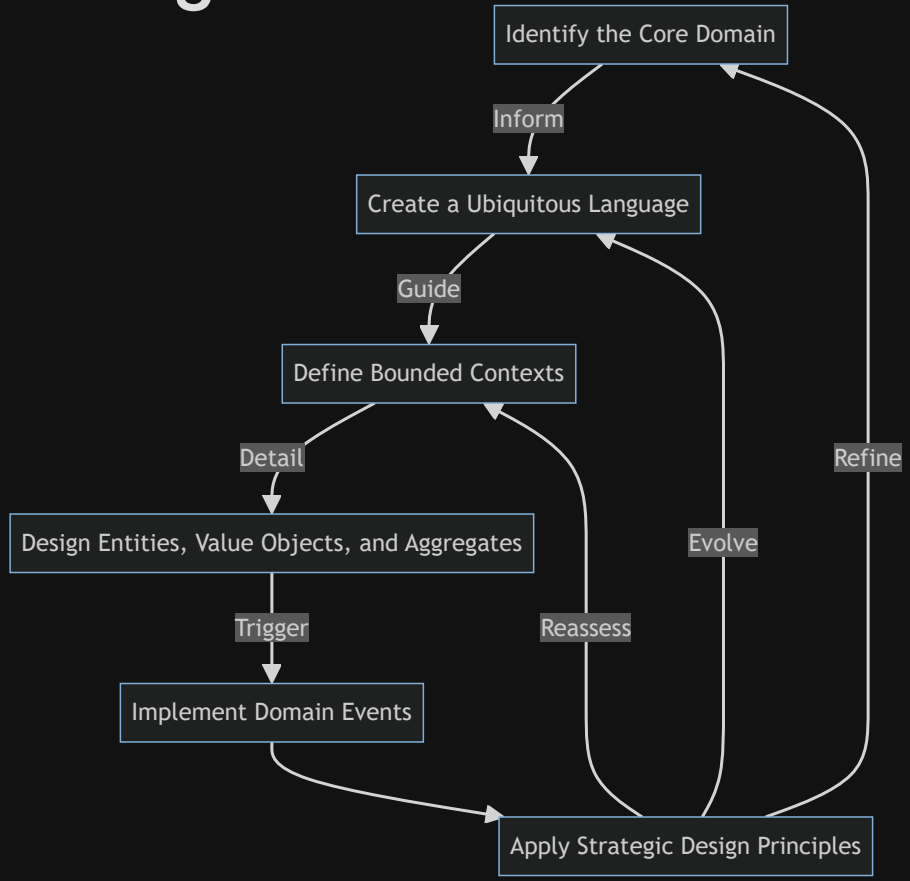


Repositories

Services



Implementing DDD



Benefits of DDD

- Alignment with Business Needs
- Clear and Shared Understanding
- Modularization
- Maintainability
- Flexibility and Adaptability
- Enhanced Testing

Q&A