

# Domain Driven Design(DDD)

Monday, 13 May 2024

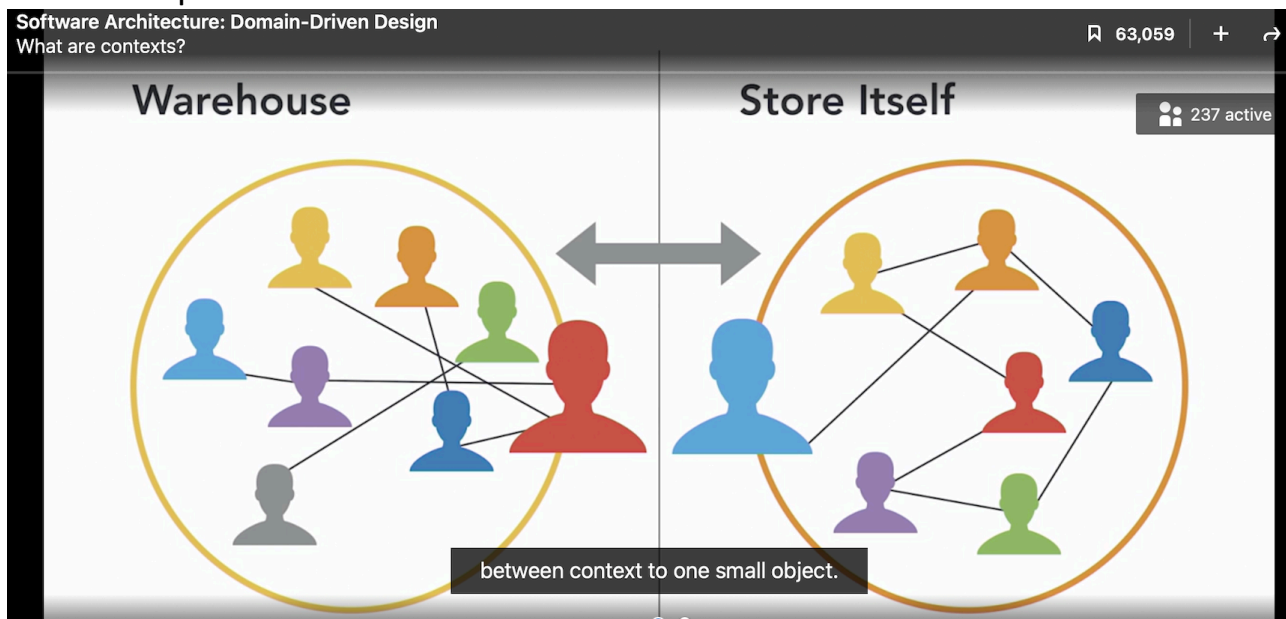
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DDD means Collaborative, Modeling , Incremental Developer and Business should work together . DDD means release small functionality to prod and get feedback . Then later accommodate the changes.

**Bounded Context :** Natural Division within the business . For example if we are building a system for a store is the context within the store you can have 2 contexts as follows

- 1) Warehouse Context - Where books are shipped
- 2) Sales Context -- For sale the books to end customers

Both contexts will have separate responsibility and distinct people are working . In DDD each context they will not talk outside the context . In DDD there will be separate entities to talk between contexts. In the real world one person will



The individual entity within the microservice is called as one person

**Ubiquitous Language :** The languages of both contexts are different. For example, the language on the warehouse side is 'Pick off shelves , Box Books , size etc' while on the sales side it is 'Image , SKU , Price' . Words described with the code itself are different for each context .

Way the entity in each context is different. Example Product entity is on both contexts but with different attributes. On the warehouse side it has size , weights, while on the sales side it has Image , SKU , Price . Below is the design for 3 contexts, each one has separate responsibilities.



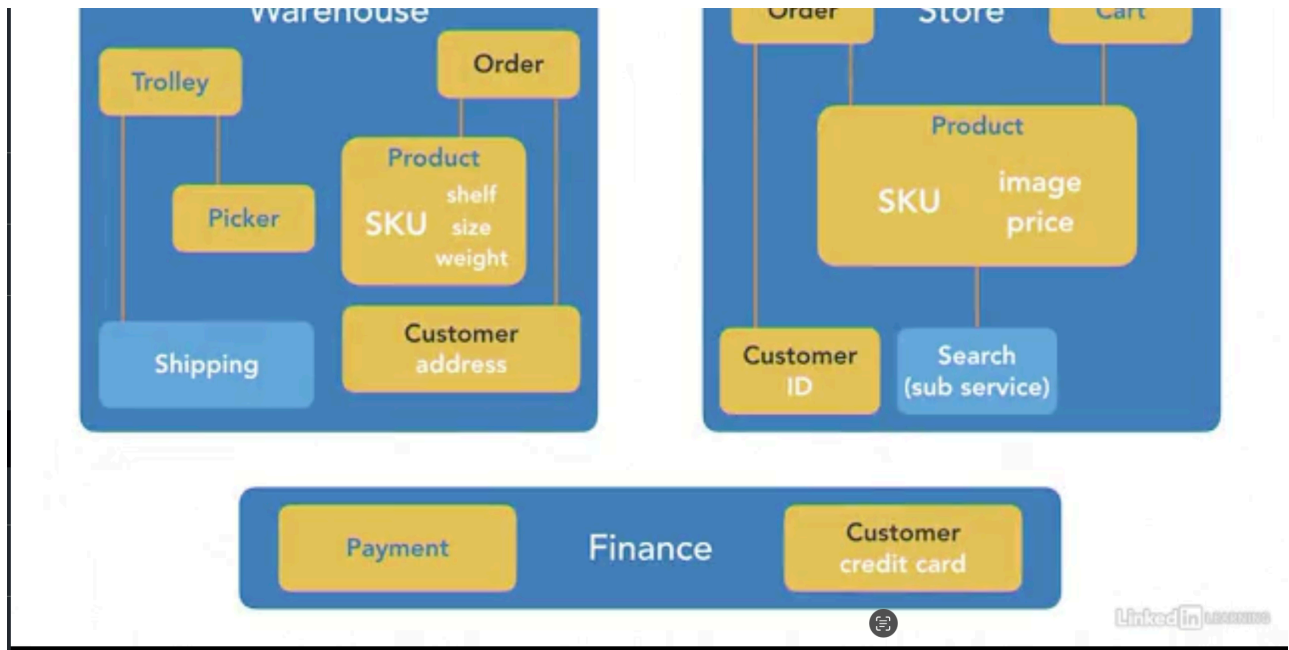
ougher on daily basis Inspect and Adopt  
e feedback

ne system for Book Store . Store it self

ch people with the context will talk but  
n each context . It similar like in real

ge of Sale is sell , shelf or organize etc .

t each has different fields like shelf,  
r Book store using DD . Here you can

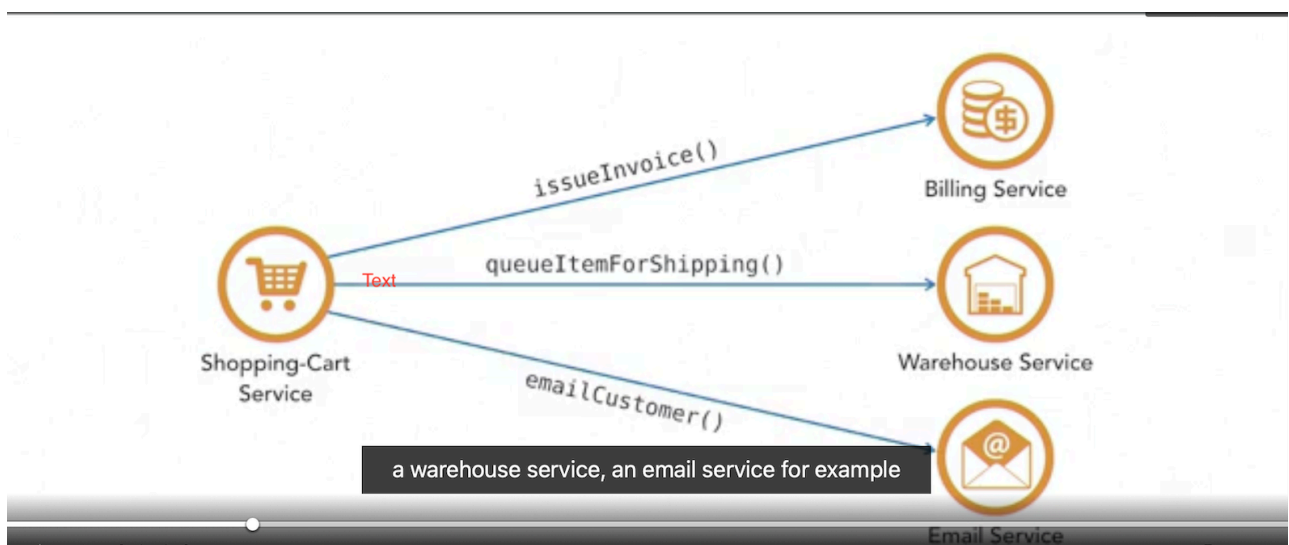


- ✓★ Every entity should be associated with one context
- ✓★ Move away from relational database thinking
- ✓★ Bad to have single product object in multiple contexts

HashMap and concurenthasmap  
RMM model for Rest needs to be ana

Orchestrated/Declarative system means one entity is talking to other entity For example in the diagram is telling 3 different services to do the task , In case billing invoice generated the then it is an failure . The reason warehouse is not shipped is because that service is down

Declarative systems are very tightly coupled between each services

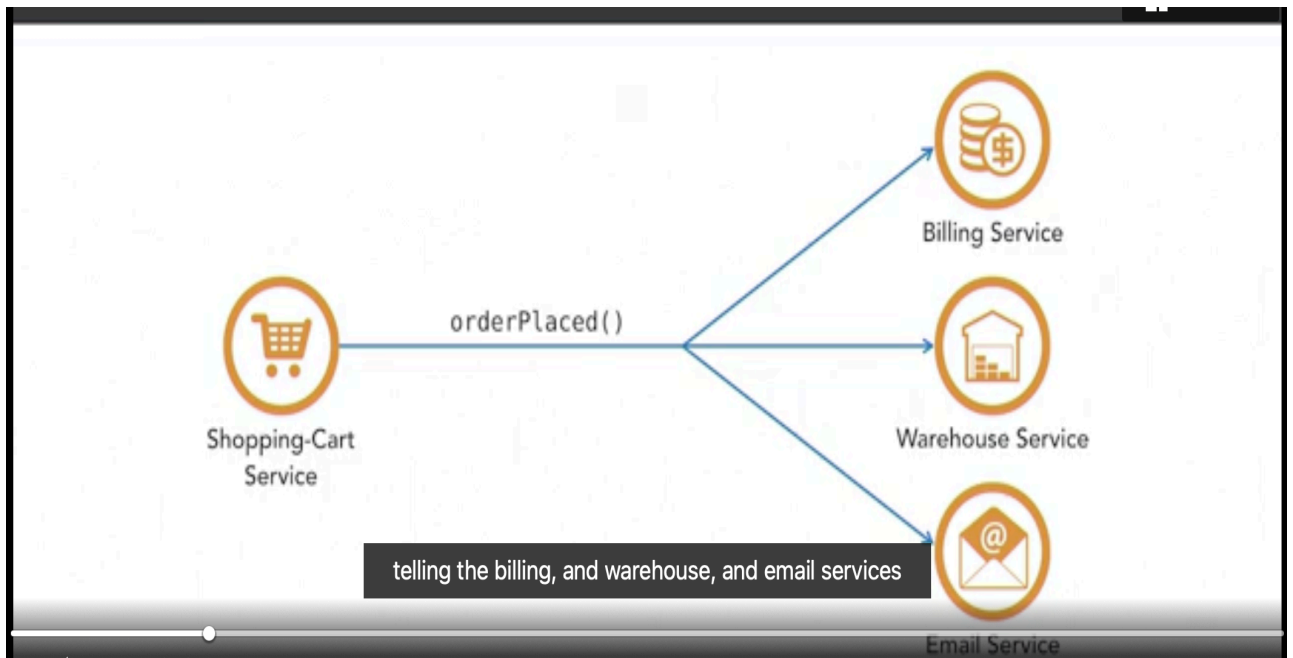


Choreography/Reactive system is the solution for declarative system . Here shopping card

if shopping card service in below  
invoice but warehouse fails to ship  
at specific time.

d service will publish the message to  
and do that test. This is not

Kafka or any messaging system so that this message can be consumed by all 3 different services. This is a good example of command query request segregation. Here we removed the tightly coupling of services.



Process API is used to get t

## Event Storming

- Can be used to analyze the domain/business
- Can be used to develop code that is modeling the business
- Collaborative technique with business people
- Design a system that models the structure and flow of activities within the business



he process created during java

services and do that task . This is what

Don't model too much at once

Focus on specific story

Model that part of the system in order to implement the story

Once done concentrate on implementing

Orange color sticky note is event

Blue color sticky note is action

Read color sticky note is Things that we have to do

Purple color sticky note is policy that controls how the action play out

Yellow color sticky note is Human activity

Pink color sticky notes from external systems

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12 factor methods in

Distributed caching technique (fault )

Cache

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<https://epam.udemy.com/course/domain-driven-design-and-microservices/?src=sac&kw>

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