Microservices Architecture

CSSE6400

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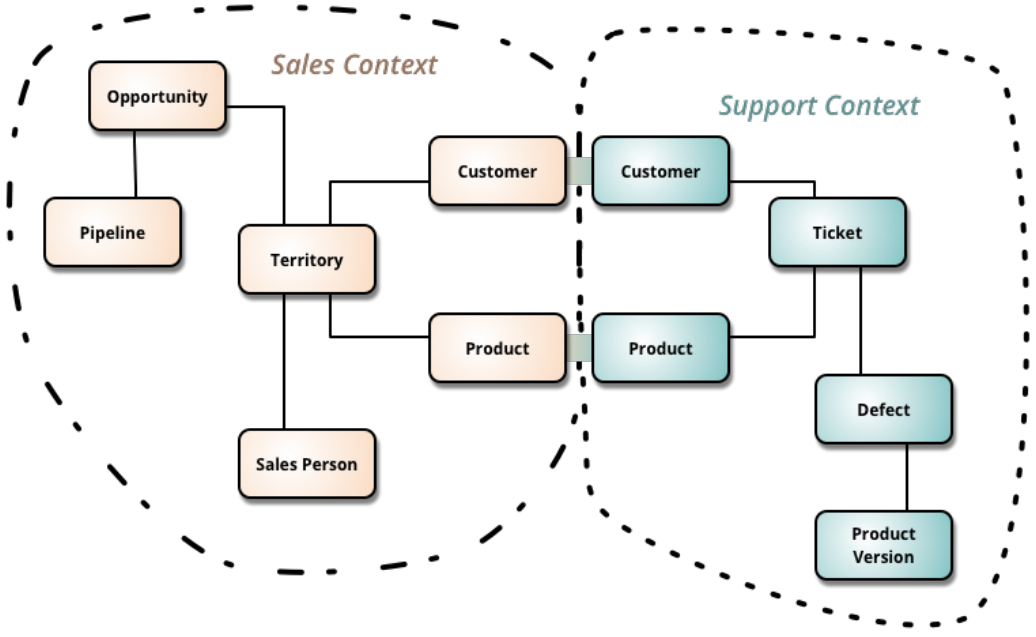
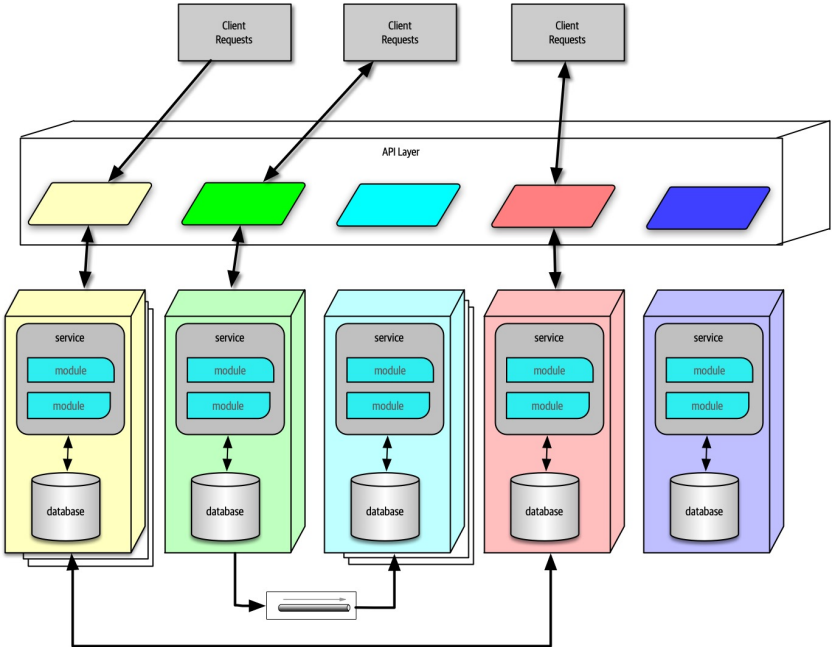
Microservices

Inspired by DDD

Definition 1. Bounded Context

Logical boundary of a domain where particular terms and rules apply consistently.

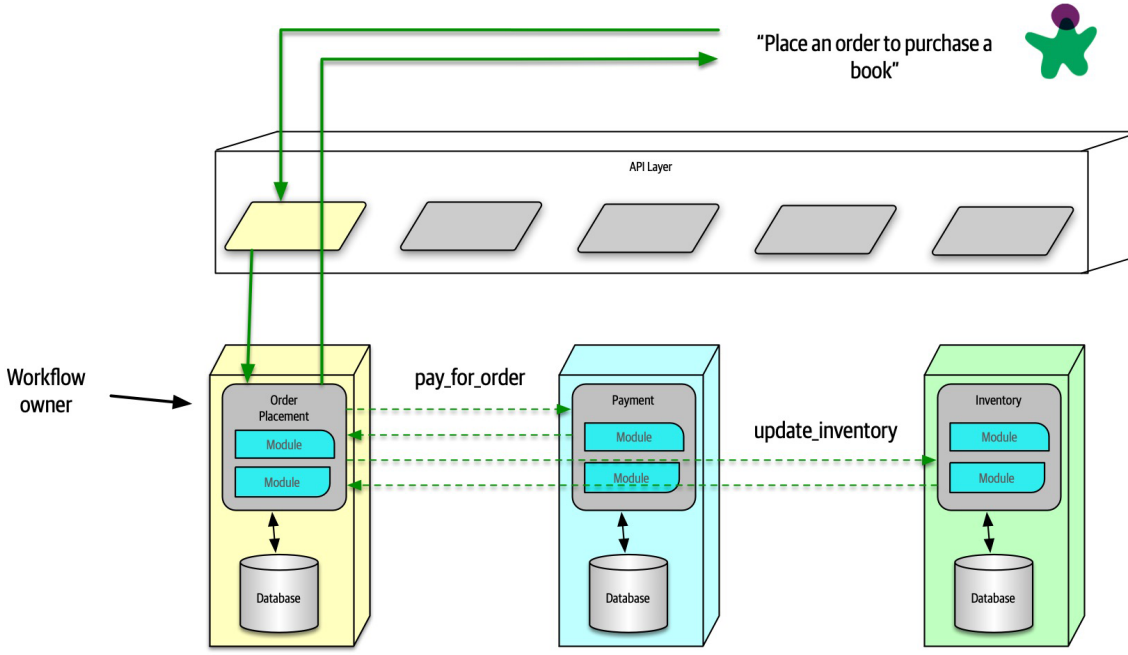

Sales Context
Support Context
Opportunity
Pipeline
Territory
Sales Person
Customer
Product
Customer
Product
Ticket
Defect
Product Version

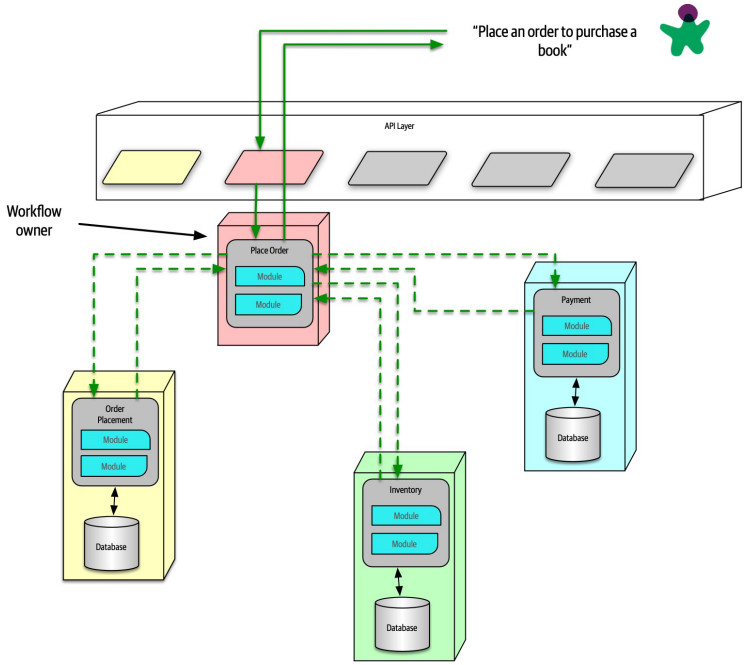

Client Requests
Client Requests
Client Requests
API Layer
service
module
module
database
service
module
module
database
service
module
module
database
service
module
module
database
service
module
module
database

Choreogrphy & Orchestration

Choreogrphy Similar to event-driven *broker*

Orchestration Similar to event-driven *mediator*


"Place an order to purchase a book"
API Layer
Workflow owner
Order Placement
Module
Module
Database
pay_for_order
Payment
Module
Module
Database
update_inventory
Inventory
Module
Module
Database


"Place an order to purchase a book"
API Layer
Workflow owner
Place Order
Module
Module
Payment
Module
Module
Database
Order Placement
Module
Module
Database
Inventory
Module
Module
Database

Pros & Cons

- Modularity
- Extensibility
- Reliability
- Interoperability
- Scalability
- Security
- Deployability
- Testability
- Simplicity