WebShop Micorservice Application

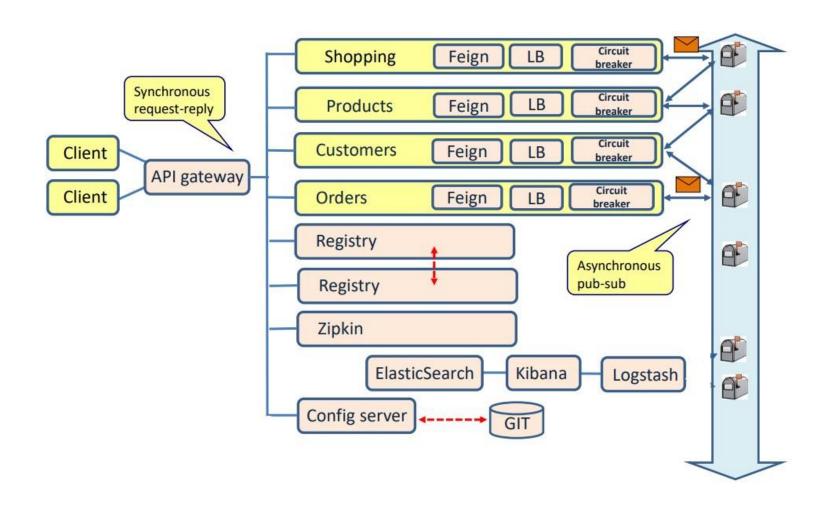
Final Project

Abraham Dereje Abera #612402

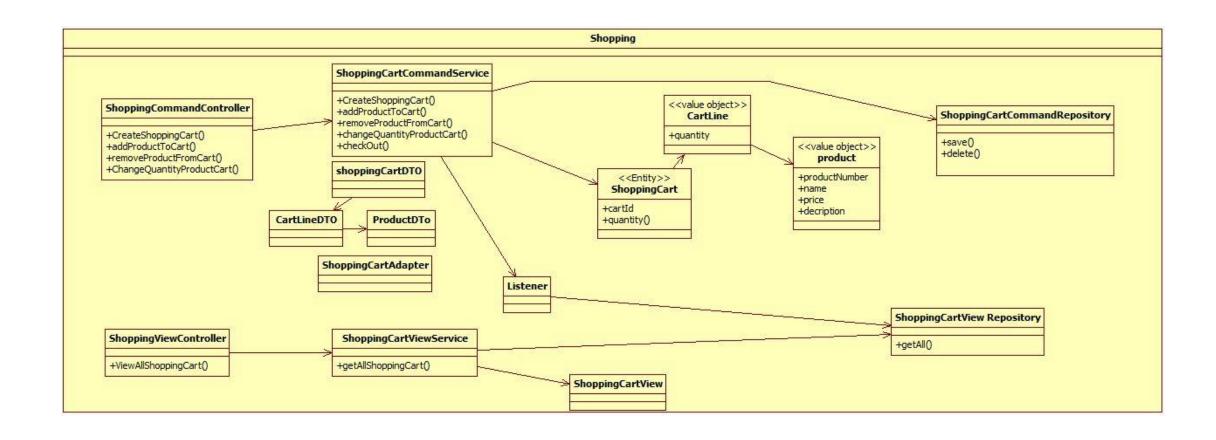
Micro Service Architecture

- It can be Deployed Independently
- it needs scaling independently
- It's Easy to Add new Technologies
- Services are Loosely Coupled
- Highly Flexible
- Can Support Agile Team

Tools and Techniques



Class Diagram



Components and Rest Client

- Each Services have Five components
 - Web
 - Domain
 - Repository
 - Services
 - DTO

Common RestClient Application

Service Communication

- Rest Communication
 - Feign Registry API gateway
- Kafka Messaging
 - CQRS event Sourcing

Feign

• Facilitate Communication between Different Services

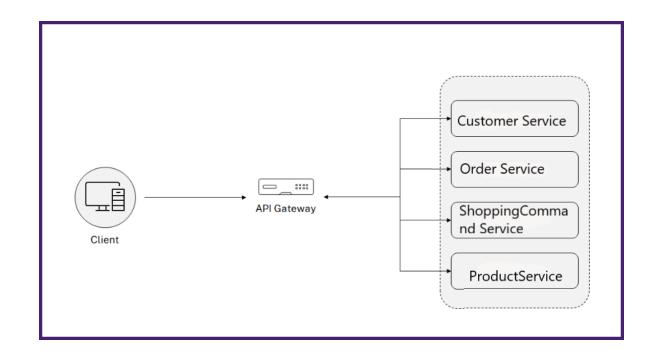
Eureka registry

- Resolves Complex communication between Services
- Solves Hard coded Service location
- All Services Registered through eureka registry
- By Replicating Registry we also get advantage of Resilience

API Gateway

Used her

- ❖ To Facilitate communication between Client and Services
- RestClient(Client Application) only know how to call API gateway



Distributed Tracing ZIPKIN

- Uses to Trace Distribute microservices
- Central Tracing Server
- It can helps to follow and monitor business process
- Also monitor Health of microservices

Logging(ELK)

- LogStash
 - Takes log data from services Concert to Json and put it to elastic Search
- Elastic Search
 - Database which stores our Log data
- Kibana
 - Web UI Interface for to Display Log

Config Server

❖ I uses Git Based Configuration for this project