# Spring Boot 3 Microservice Notes

- Spring Boot 3

- Integration Tests using Latest Testing Techniques

- Spring Cloud Feign for inter service communication

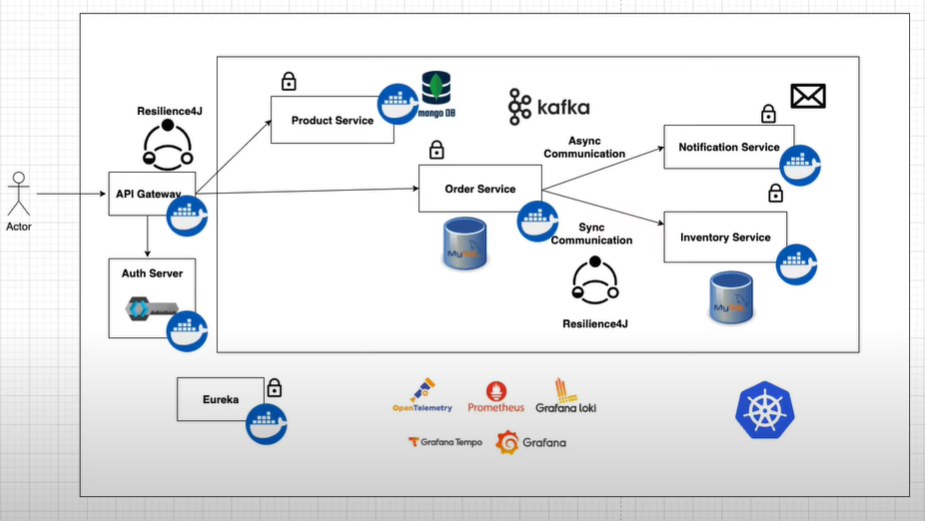
- API Gateway implementation using Spring Cloud Gateway MVC instead of Spring Cloud Gateway with Webflux

- Add Circuit Breaker Logic in API Gateway

- Security using latest Keycloak

- Distributed Tracing using Grafana Stack instead of Slueth

- Deployment using Kubernetes



4 Microservices:

1. Product Service: Product catalog, stored in MongoDB (NoSQL)

2. Order Service: handles orders, stored in MySQL (RDBMS)

3. Notification Service: stateless, no db, asynchronous using Kafka.

4. Inventory Service: handles inventory, synchronous using Resilience4J

- API Gateway: acts as the gateway to access microservices

- Auth Server: Keyloak, for app’s security.

- Eureka: server and client for registration of microservices

- Grafana: for monitoring and dashboard

- GrafanaLoko: for logs

- Grafana Tempo: for distributed tracing

- Prometheus: for metrics

- Containerized all services using Docker

- Run all Docker containers using Docker compose.

- Migrate all Docker compose workloads to Kurbenetes