swagger-ui

Person (Active Record Pattern)

normal jar
uber jar
native deployment

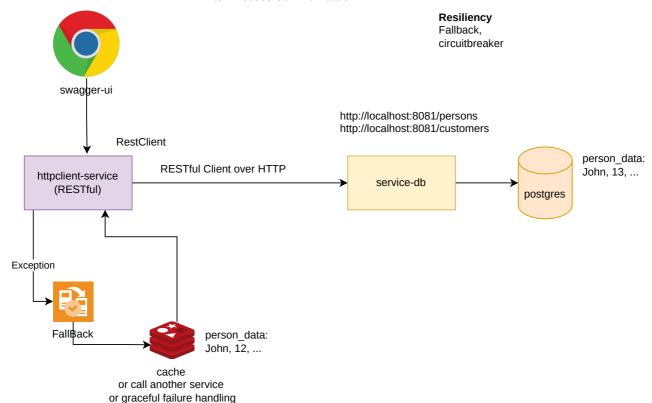Customer (Repository Pattern)

service-db → postgres

Quarkus Dev Profile -> only Development
quarkus dev
./mvnw quarkus:dev
./mvnw clean compile quarkus:dev

Postgres docker container is auto-launched
Kafka server
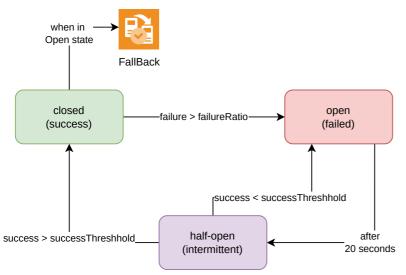Keycloak (OIDC, OAuth2)
GraalVM container

Native Deployment: GraalVM
Native Containerize: On Docker

application.properties
%prod%.quarkus.http.port=8081
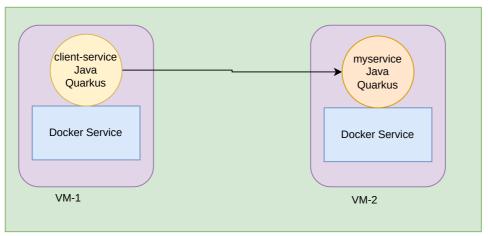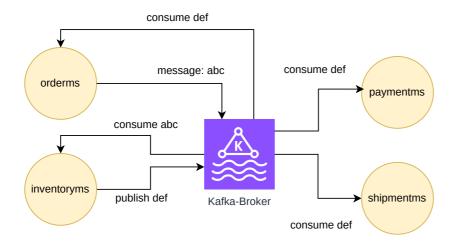
Inter Process Communication

swagger-ui

RestClient

Resiliency
Fallback,
circuitbreaker

http://localhost:8081/persons
http://localhost:8081/customers

httpclient-service
(RESTful)

RESTful Client over HTTP

service-db

postgres

person_data:
John, 13, ...

Exception

FallBack

person_data:
John, 12, ...

cache
or call another service
or graceful failure handling

Circuit Breaker

when in
Open state

FallBack

closed
(success)

failure > failureRatio

open
(failed)

requestVolumethreshhold: 10
failureRatio: 0.5
delay: 20 seconds
successThreshhold: 4

success < successThreshhold

success > successThreshhold

half-open
(intermittent)

after
20 seconds

Docker/Kubernetes

client-service
Java
Quarkus

Docker Service

VM-1

myservice
Java
Quarkus

Docker Service

VM-2

Container Orchestrator
(Kubernetes, Docker Swarm, Apache Mesos)

consume def

orderms

message: abc

consume def

paymentms

consume abc

inventoryms

publish def

K

Kafka-Broker

shipmentms

consume def

oAuth2 -> OIDC (Open ID Connect)