Spring Data JPA (Java persistance API)

Can be used with RDBMS or SQL databases

Advantages

* Create a connection with DB
* Provide methods for quering
* Provides set of annotation for mapping object with tables
* JPQL (Java persistence query language)
* Native queries can also be used

Ecommerce app

* Product management
* Authentication and Authorization
* Payment processing
* Shipping services
* Order management
* Customer services
* Recommandation engine
* ……..

Single spring boot project

Monolithic application – single jar/war file

Microservice architecture

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Microservice communication

* Synchronous communication

Rest template , Feign client

* Asynchronous communication(message broker)

Rabbit MQ, Active MQ ,Kafka…….

Spring cloud

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Spring cloud netfilx

* Eureka module - SRD
* Zuul module – gate way api (deprecated)

Spring cloud gateway

* API Gateway

SRD

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Spring web , eureka server

@EnableEurekaServer

server.port=8761  
  
eureka.client.register-with-eureka= false  
eureka.client.fetch-registry=false

to register under eureka server

* Eureka discovery client dependency
* @EnableDiscoveryClient

Config properties

Application.properties

spring.application.name = contacts-service  
eureka.client.register-with-eureka= true  
eureka.client.fetch-registry=true  
eureka.client.serviceUrl.defaultZone= http://localhost:8761/eureka/  
eureka.instance.hostname = localhost

application.yaml

spring:  
 application:  
 name: user-profile-service

eureka:  
 instance:  
 hostname: localhost  
 client:  
 registerWithEureka: true  
 fetchRegistry: true  
 serviceUrl:  
 defaultZone: http://localhost:8761/eureka/

API Gateway

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* Gateway , **Eureka Discovery Client**
* Uses netty server