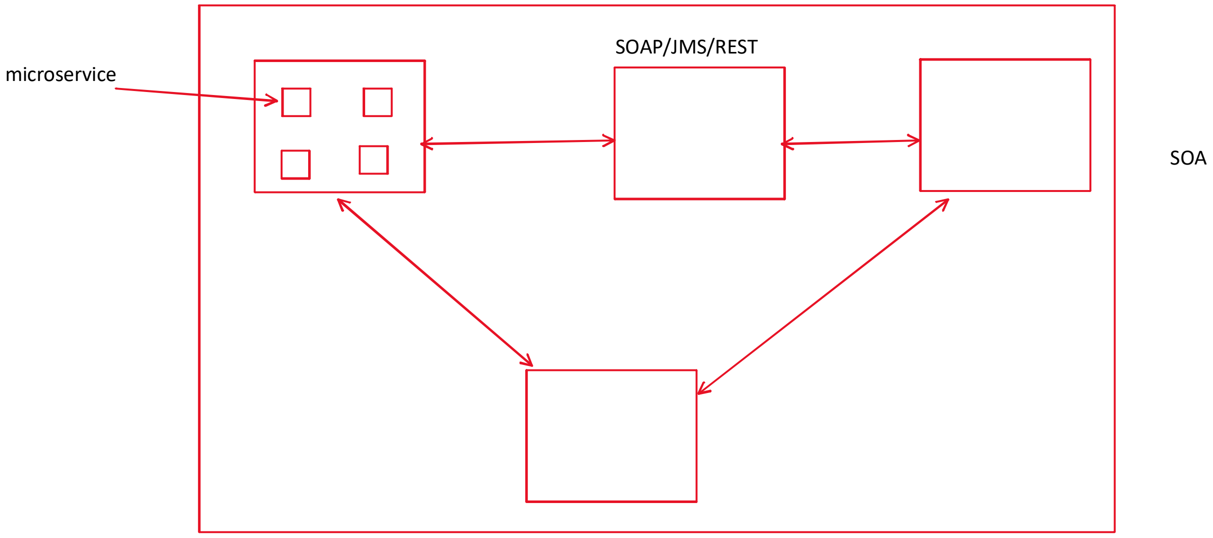
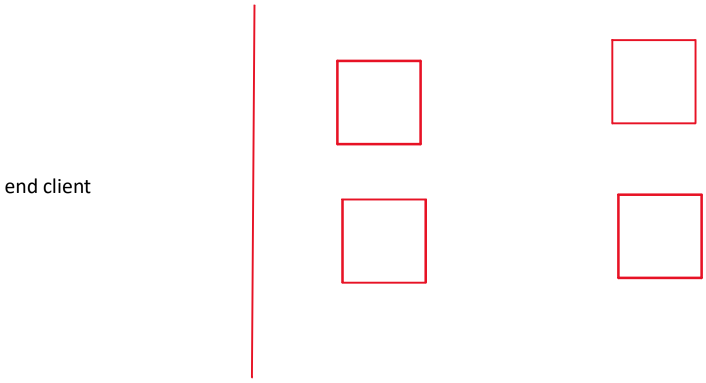
Microservices (Wells Fargo)

08 March 2021 09:14



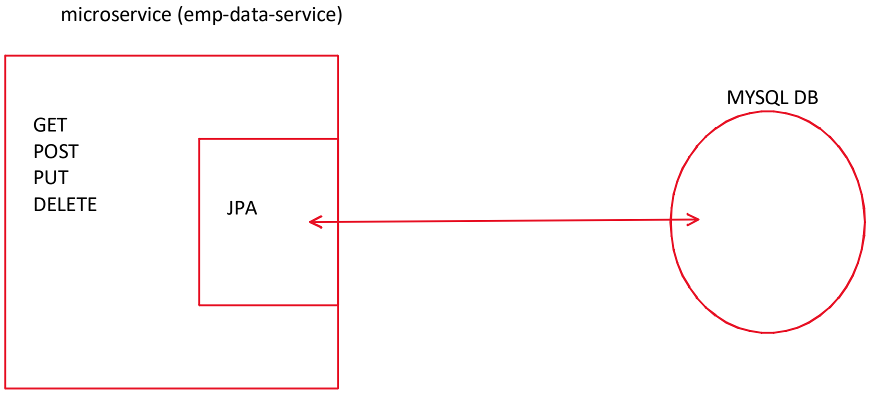


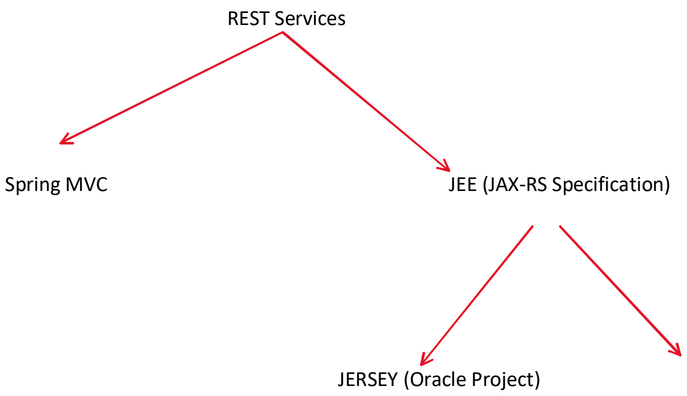
Client
Accept: application/json
Service
content-type: application/xml

REST

Re --> some sort of data representation
State --> resource/data
T ---> exchange

Accept
Content-Type





profiles:

dev	ds1 (mysql)
testing	ds2 (mysql)
prod	ds3(oraccle)

as Configclass
application.yml
commandline args

-Dspring.profiles.active=dev

Entity ---> javaBean --> property

```
{
    "empid": 100,
    "name": "Amitabh",
    "city": "Chennai",
    "salary": 30000.0
  }
```

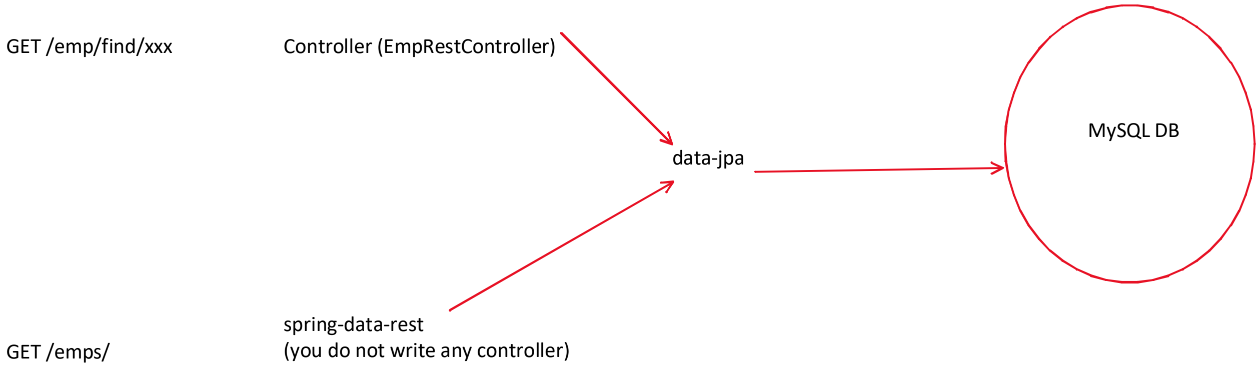
e.setEmpid(100)

setEmpId()

Service Documentation

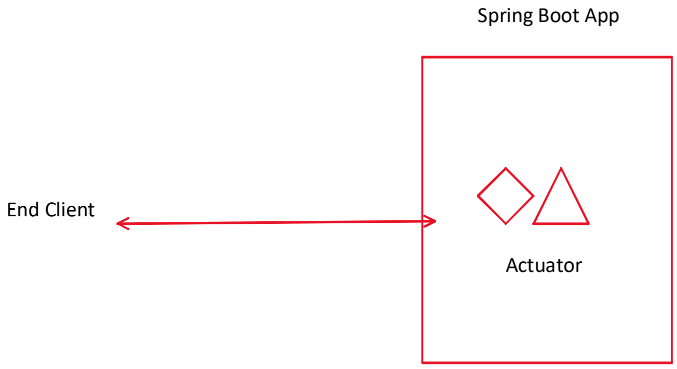
in SOAP --WSDL

Swagger (OpenAPI)



GET /emp/find/xxx
Controller (EmpRestController)
data-jpa
MySQL DB
spring-data-rest
(you do not write any controller)
GET /emps/

JMX


Spring Boot App

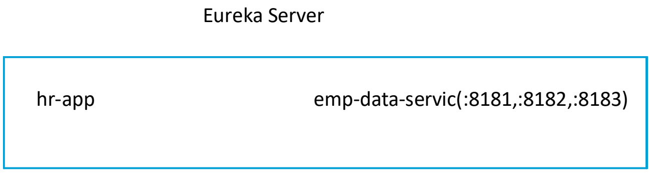
End Client

Actuator

management-monitoring view

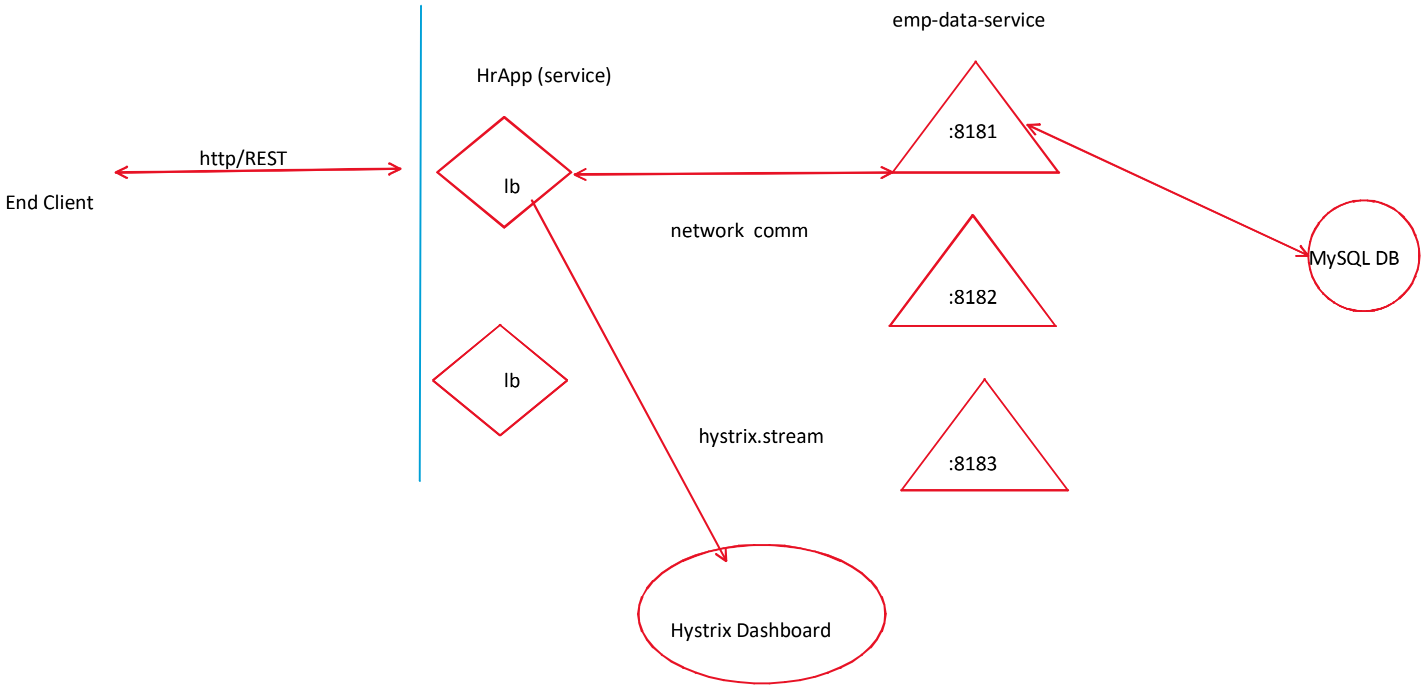
what we learnt:

1. definitions of microservices
2. Spring Boot based Microservice (1 unit)
3. Features of Spring Boot application (REST Impl, Repository, Spring Data REST, HATEOAS, HAL Explorer, Profiles, External Configuration with multiple files
4. Documentation with OpenApi


Eureka Server

hr-app

emp-data-servic(:8181,:8182,:8183)


emp-data-service

HrApp (service)

http/REST

End Client

lb

:8181

network comm

:8182

MySQL DB

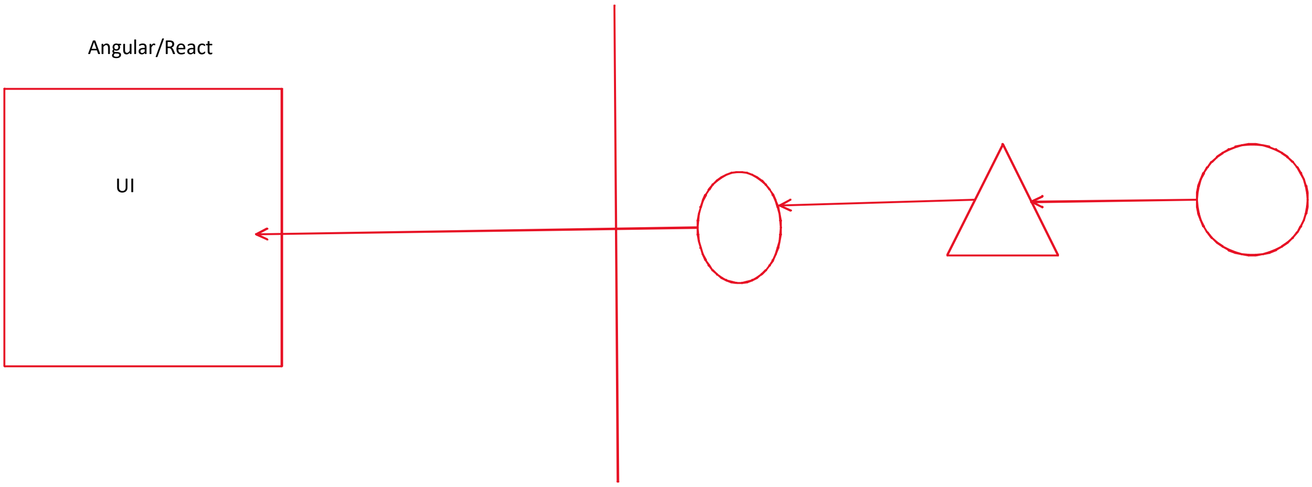
lb

hystrix.stream

:8183

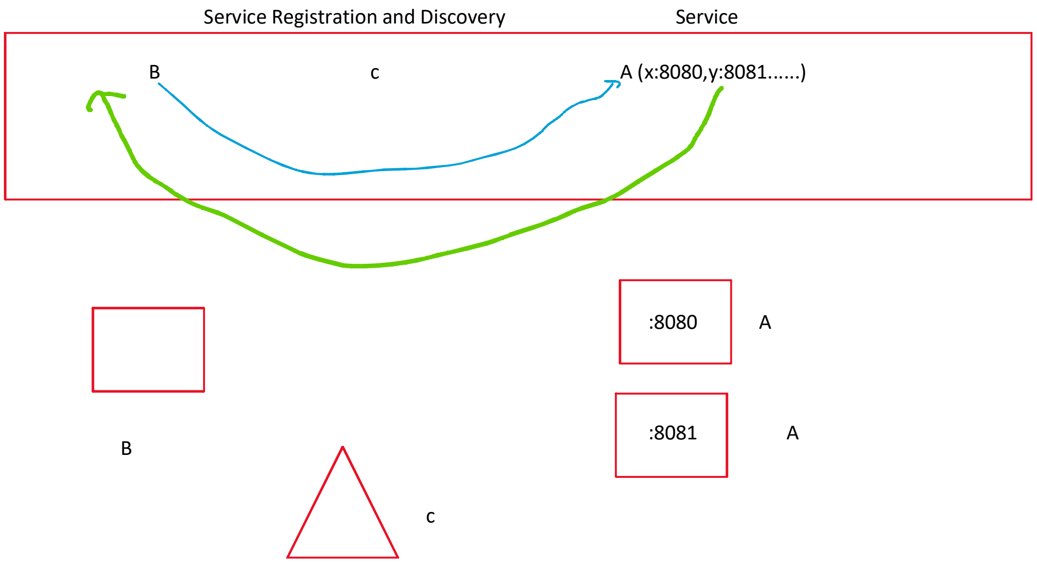
Hystrix Dashboard

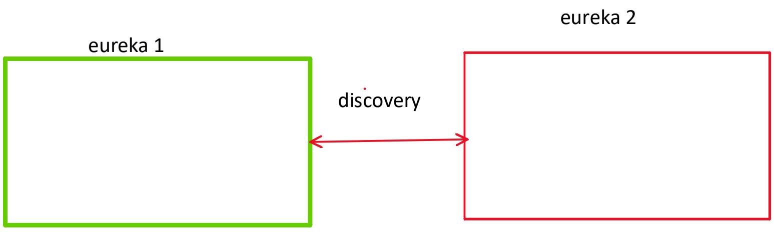
RestTemplate



Registry Server

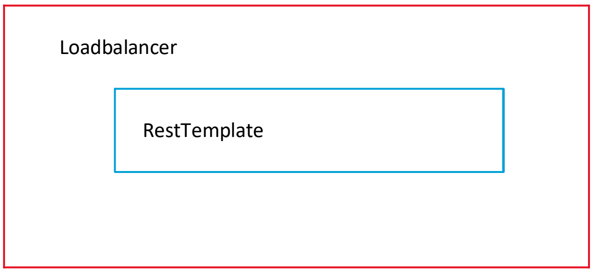
1. Netflix Eureka
2. Hashicorp Consul
3. Apache Zookeeper

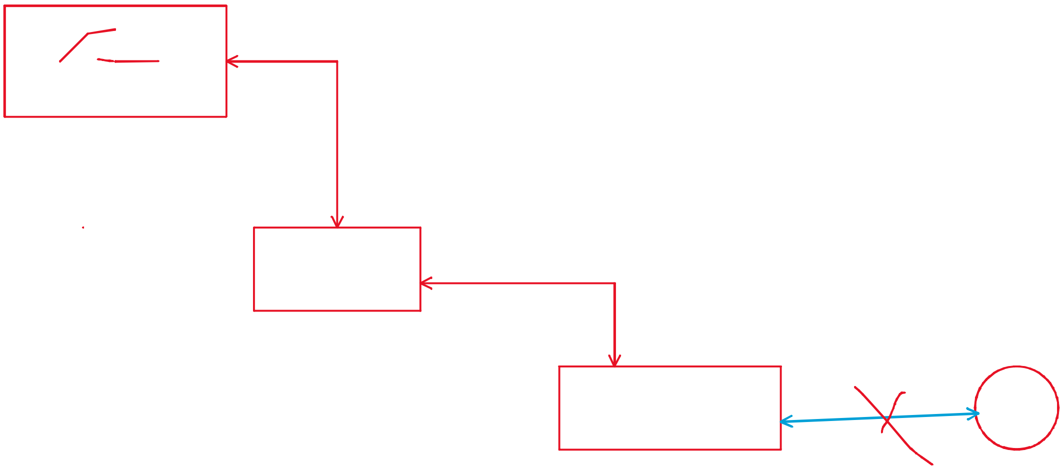


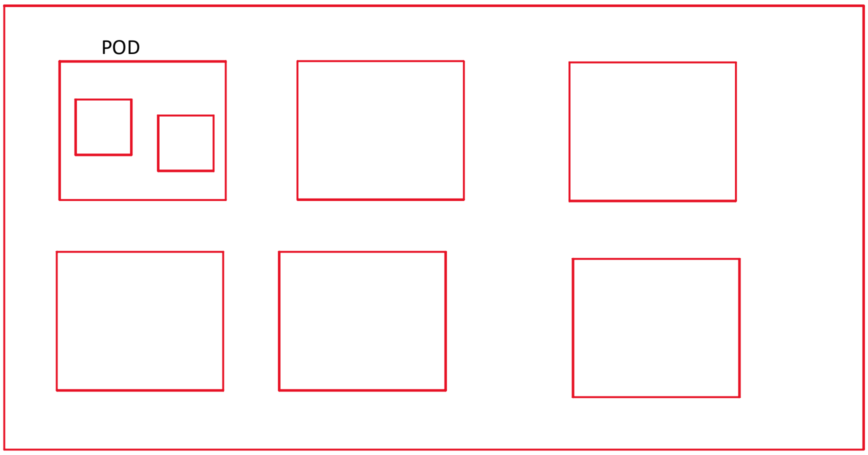


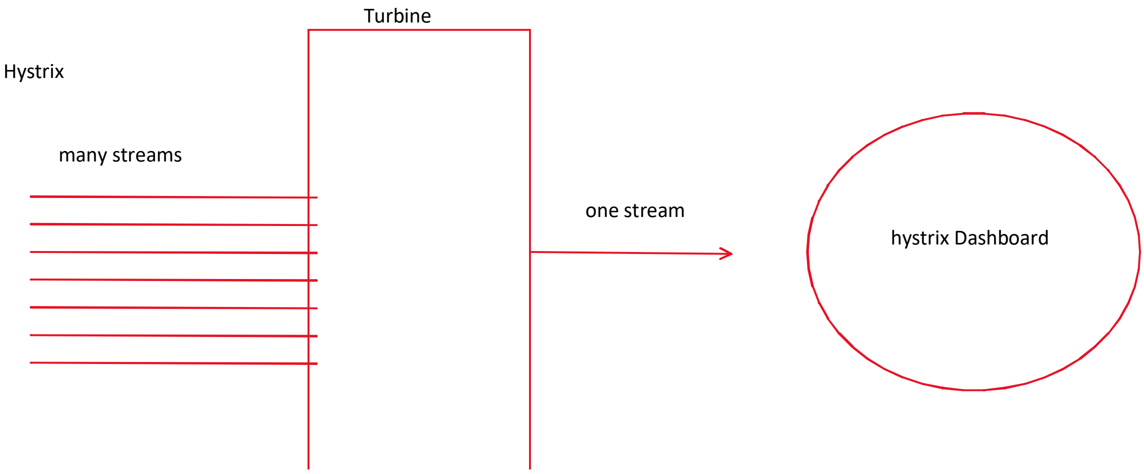
For Eureka Server

1. create a simple Spring boot application with Eureka Server Dependency
2. Annotate the main class with @EnableEurekaServer/ @EnableDiscoveryServer

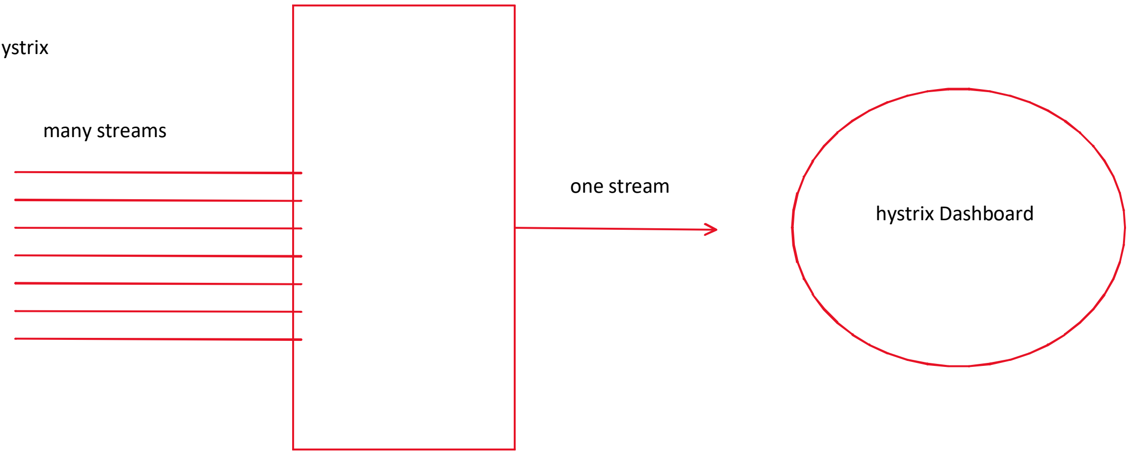

Loadbalancer
RestTemplate




POD


Hystrix
many streams
Turbine
one stream
hystrix Dashboard

Hystrix



API Gateway supported in sprin cloud stack is netflix ZUUL

Apache Web Server

Zuul

http://mybank.com/loans

http://mybank.com/creditcards