

Spring Cloud Tutorials

Lab1 -> Eureka Server

- a) Spring Starter project -> lab_eureka_service
- b) Add the below dependencies
Eureka Server
- c) Add the below entries in application.yml
eureka:
 instance:
 hostname: localhost
 server:
 enable-self-preservation: false
 client:
 registerWithEureka: true
 fetchRegistry: true
 serviceUrl:
 defaultZone: <http://localhost:8761/eureka/>

Lab2 -> Simple Service

- a) Spring Starter Project -> lab_Simple_Service
- b) Add the below dependencies

Actuator, Eureka Client, Web
- c) Add the below entries in application.yml
server:
 port: 9080
spring:
 application:
 name: simple-microservice
eureka:
 client:
 registerWithEureka: true
 fetchRegistry: true
 serviceUrl:
 defaultZone: http://localhost:8761/eureka/
- d). Add the below code in SimpleService

```
@EnableDiscoveryClient
@SpringBootApplication
public class SimpleService {

    public static void main(String[] args) {
        SpringApplication.run(SimpleService.class, args);
    }
}
```

```

@RestController
class SimpleController {

    @RequestMapping("/")
    public String disp()
    {
        return "hi.. from microservice";
    }
}

```

Lab3 -> Other Service

- a) Spring Starter Project -> OtherService
- b) Add the below dependencies

Actuator, Eureka Client, Web

- c) Add the below entries in application.yml

```

server:
  port: 9081
spring:
  application:
    name: other-microservice
eureka:
  client:
    registerWithEureka: true
    fetchRegistry: true
    serviceUrl:
      defaultZone: http://localhost:8761/eureka/

```

- d) Java class -> OtherService

```

@EnableDiscoveryClient
@SpringBootApplication
public class OtherService {

    @LoadBalanced
    @Bean
    public RestTemplate loadbalancedRestTemplate() {
        return new RestTemplate();
    }

    public static void main(String[] args) {
        SpringApplication.run(OtherService.class, args);
    }
}

```

e) Java class -> OtherController

```
@RestController
public class OtherController {

    @Autowired
    RestTemplate restTemplate;

    @RequestMapping("/")
    public String disp()
    {
        System.out.println("done#####");
        return restTemplate.getForObject
            ("http://simplemicroservice", String.class);
    }
}
```

Lab4 -> Feign Client

a) Spring Starter Project -> FeignClient

b) Add the below dependencies

Actuator, Eureka Client, Web, Feign

c) application.yml

server:

port: 9082

spring:

application:

name: Feign-microservice

eureka:

client:

registerWithEureka: true

fetchRegistry: true

serviceUrl:

defaultZone: http://localhost:8761/eureka/

d) Java class -> FeignClient

@EnableDiscoveryClient

@EnableFeignClients

@SpringBootApplication

```
public class FeignClient {
    public static void main(String[] args) {
        SpringApplication.run(FeignClient.class, args);
    }
}
```

e) Interface -> SimpleClient

```
@FeignClient("simple-microservice")
public interface SimpleClient {

    @RequestMapping("/")
    public String disp();
}
```

f) Class -> FeignController

```
@RestController
public class FeignController {

    @Autowired
    SimpleClient client;

    @RequestMapping("/")
    public String simpleDisp()
    {
        return client.disp();
    }
}
```

Lab 5 -> Config Server

a) Spring Starter Project -> ConfigServer

b) Add the below dependencies
spring-cloud-config-server

c) Class -> ConfigServer

```
@SpringBootApplication
@EnableConfigServer
public class ConfigServer {

    public static void main(String[] args) {
        SpringApplication.run(ConfigServer.class, args);
    }
}
```

d) Application.yml

```
spring:
  cloud:
    config:
      server:
        native:
          search-locations: classpath:/shared
      # git:
      #   uri: https://github.com/kbastani/spring-boot-microservice-
      config

  profiles:
    active: native

server:
  port: 8889
```

- e) Create "shared" folder under src/main/resources
- f) Create two files -> simple_microservice.yml , other_microservice.yml
Add the below entries in application.yml
eureka:
 client:
 registerWithEureka: true
 fetchRegistry: true
 serviceUrl:
 defaultZone: http://localhost:8761/eureka/
- g) Add the below dependency in SimpleService -> pom.xml
 <dependency>
 <groupId>org.springframework.cloud</groupId>
 <artifactId>spring-cloud-starter-config</artifactId>
 </dependency>
- h) Add the below entries in SimpleService-> application.yml
spring:
 cloud:
 config:
 uri: <http://localhost:8889>
- i) Add the below dependency in OtherService -> pom.xml
 <dependency>
 <groupId>org.springframework.cloud</groupId>
 <artifactId>spring-cloud-starter-config</artifactId>
 </dependency>
- j) Add the below entries in OtherService-> application.yml
spring:
 cloud:
 config:
 uri: <http://localhost:8889>