Eureka 实践作业

服务注册中心

1. 在 IDEA 中创建一个 Spring Cloud 工程，引入 Eureka-Server 包，pom 文件整体如下：

```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
    <modelVersion>4.0.0</modelVersion>

    <groupId>com.emest</groupId>
    <artifactId>eureka-server</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <packaging>jar</packaging>

    <name>eurekaserver</name>
    <description>Demo project for Spring Boot</description>

    <!-- spring boot 的 parent  配置文件，有大部分 spring boot 需要用的 Jar 包 -->
    <parent>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter-parent</artifactId>
        <version>1.5.3.RELEASE</version>
        <relativePath/> <!-- lookup parent from repository -->
    </parent>

    <properties>
        <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
        <project.reporting.outputEncoding>UTF-8</project.reporting.outputEncoding>
        <java.version>1.8</java.version>
    </properties>

    <dependencies>
        <dependency>
            <groupId>org.springframework.cloud</groupId>
            <artifactId>spring-cloud-starter-eureka-server</artifactId>
        </dependency>
    </dependencies>

    <dependencyManagement>
        <dependencies>
            <dependency>
                <groupId>org.springframework.cloud</groupId>
                <artifactId>spring-cloud-dependencies</artifactId>
                <version>Camden.SR7</version>
                <type>pom</type>
                <scope>import</scope>
            </dependency>
        </dependencies>
    </dependencyManagement>

    <build>
        <plugins>
            <plugin>
                <groupId>org.springframework.boot</groupId>
                <artifactId>spring-boot-maven-plugin</artifactId>
            </plugin>
        </plugins>
    </build>

</project>
```

2. application.yml 配置

```
#单例模式启动 Eureka Server
server:
  port: 8761 #启动端口
eureka:
  client:
    registerWithEureka: false #false:不作为一个客户端注册到注册中心
    fetchRegistry: false #此客户端是否获取 eureka 服务器注册表上的注册信息
    serviceUrl:
      defaultZone: http://localhost:8761/eureka
```

配置解释：

- registerWithEureka：表示是否将自己注册到 Eureka Server，默认为 true。由于当前应用就是 Eureka Server，故而设置为 false。

- fetchRegistry：表示是否从 Eureka Server 获取注册信息，默认为 true。因为这是一个单

点的 Eureka Server，不需要同步其他的 Eureka Server 节点的数据，故而设置为 false。

- defalseZone：设置与 Eureka Server 交互的地址，查询服务和注册服务都需要依赖这个地址。

3. 编写启动类，在启动类上添加@EnableEurekaServer 注解，声明这是一个 Eureka Server。

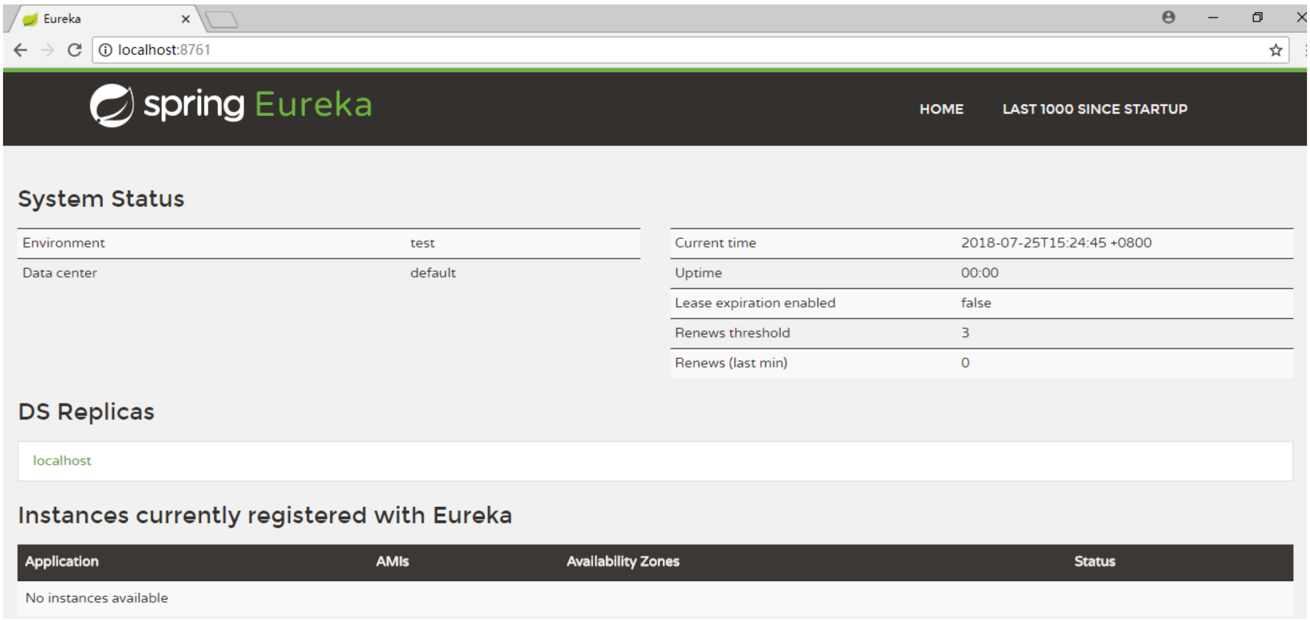
```
package com.emest;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.cloud.netflix.eureka.server.EnableEurekaServer;

@EnableEurekaServer
@SpringBootApplication
public class EurekaServerApplication {

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

4. 访问 http://localhost:8761/，如下图所示：



System Status

Environment	test
Data center	default

Current time	2018-07-25T15:24:45 +0800
Uptime	00:00
Lease expiration enabled	false
Renews threshold	3
Renews (last min)	0

DS Replicas

localhost

Instances currently registered with Eureka

Application	AMIs	Availability Zones	Status
No instances available			

将微服务注册到 Eureka Server 上

1. 在 IDEA 中创建一个 Spring Cloud 工程，pom 文件整体如下：

```xml
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
    <modelVersion>4.0.0</modelVersion>

    <groupId>com.eureka</groupId>
    <artifactId>applicaton-service</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <packaging>jar</packaging>

    <name>service</name>
    <description>Demo project for Spring Boot</description>

    <parent>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter-parent</artifactId>
        <version>1.5.3.RELEASE</version>
        <relativePath/> <!-- lookup parent from repository -->
    </parent>

    <properties>
        <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
        <project.reporting.outputEncoding>UTF-8</project.reporting.outputEncoding>
        <java.version>1.8</java.version>
    </properties>

    <dependencies>
        <dependency>
            <groupId>org.springframework.cloud</groupId>
            <artifactId>spring-cloud-starter-eureka</artifactId>
        </dependency>

    </dependencies>

    <dependencyManagement>
        <dependencies>
            <dependency>
```

```
                <groupId>org.springframework.cloud</groupId>
                <artifactId>spring-cloud-dependencies</artifactId>
                <version>Camden.SR7</version>
                <type>pom</type>
                <scope>import</scope>
            </dependency>
        </dependencies>
    </dependencyManagement>

    <build>
        <plugins>
            <plugin>
                <groupId>org.springframework.boot</groupId>
                <artifactId>spring-boot-maven-plugin</artifactId>
            </plugin>
        </plugins>
    </build>


</project>
```

2. application.yml 配置

```
# HTTP (Tomcat) port
server:
  port: 8082
spring:
  application:
    name: micro-service
eureka:
  client:
    service-url:
      defaultZone: http://localhost:8761/eureka/
```

3. 编写启动类，在启动类上添加@SpringBootApplication @EnableDiscoveryClient 注解，声明这是一个 Eureka Client。

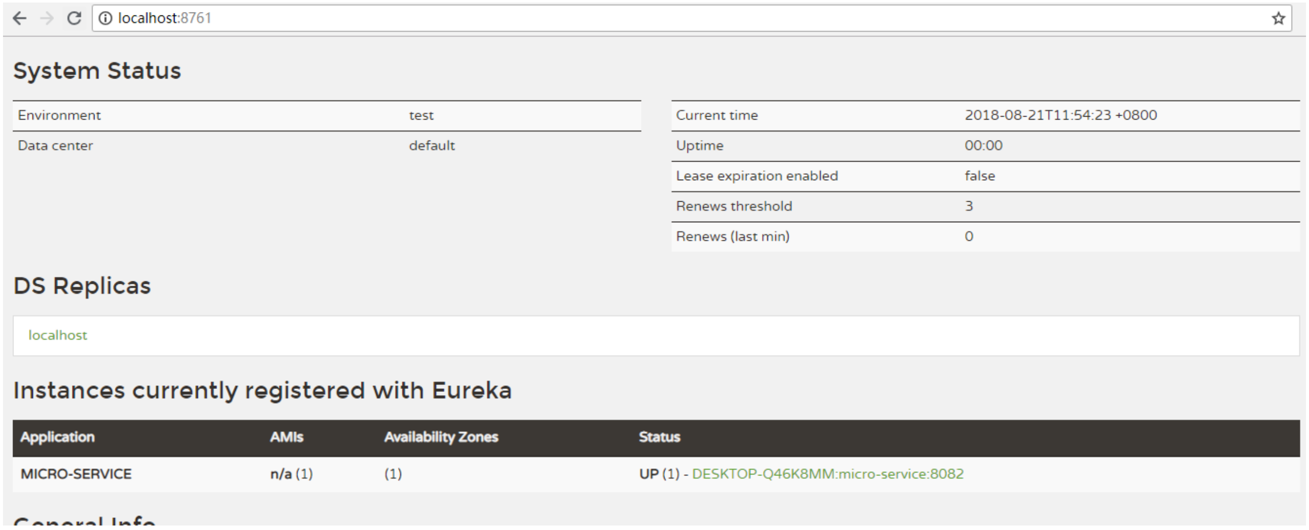
```
package com.eureka;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.cloud.client.discovery.EnableDiscoveryClient;

@SpringBootApplication
```

```
@EnableDiscoveryClient
public class ServiceApplication {

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

4. 启动后，重新访问 http://localhost:8761/，如下图所示，我们可以看到刚刚启动的服务已经注册到我们的服务注册中心中。



System Status

Environment	test
Data center	default

Current time	2018-08-21T11:54:23 +0800
Uptime	00:00
Lease expiration enabled	false
Renews threshold	3
Renews (last min)	0

DS Replicas

localhost

Instances currently registered with Eureka

Application	AMIs	Availability Zones	Status
MICRO-SERVICE	n/a (1)	(1)	UP (1) - DESKTOP-Q46K8MM:micro-service:8082