**Microservices with Spring Boot 3 and Spring Cloud**

**EXERCISE 2: Create Eureka Discovery Server and register**

**Source Code**

**EUREKA DISCOVERY SERVER**

EurekaDiscoveryServerApplication.java

package com.cognizant.discovery;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

import org.springframework.cloud.netflix.eureka.server.EnableEurekaServer;

@SpringBootApplication

@EnableEurekaServer

public class EurekaDiscoveryServerApplication {

public static void main(String[] args) {

SpringApplication.run(EurekaDiscoveryServerApplication.class, args);

}

}

application.properties

server.port=8761

eureka.client.register-with-eureka=false

eureka.client.fetch-registry=false

logging.level.com.netflix.eureka=OFF

logging.level.com.netflix.discovery=OFF

pom.xml

<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.cognizant</groupId>

<artifactId>eureka-discovery-server</artifactId>

<version>1.0.0</version>

<packaging>jar</packaging>

<parent>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-parent</artifactId>

<version>2.7.18</version>

<relativePath/>

</parent>

<dependencies>

<dependency>

<groupId>org.springframework.cloud</groupId>

<artifactId>spring-cloud-starter-netflix-eureka-server</artifactId>

</dependency>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-web</artifactId>

</dependency>

</dependencies>

<dependencyManagement>

<dependencies>

<dependency>

<groupId>org.springframework.cloud</groupId>

<artifactId>spring-cloud-dependencies</artifactId>

<version>2021.0.8</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>

**REGISTER ACCOUNT MICROSERVICE**

AccountApplication.java

package com.cognizant.account;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

import org.springframework.cloud.client.discovery.EnableDiscoveryClient;

@SpringBootApplication

@EnableDiscoveryClient

public class AccountApplication {

public static void main(String[] args) {

SpringApplication.run(AccountApplication.class, args);

}

}

AccountController.java

package com.cognizant.account;

import org.springframework.web.bind.annotation.\*;

@RestController

@RequestMapping("/accounts")

public class AccountController {

@GetMapping("/{number}")

public Account getAccount(@PathVariable String number) {

return new Account(number, "savings", 234343.0);

}

record Account(String number, String type, double balance) {}

}

application.properties

server.port=8080

spring.application.name=account-service

eureka.client.service-url.defaultZone=http://localhost:8761/eureka

pom.xml

<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.cognizant</groupId>

<artifactId>account</artifactId>

<version>1.0.0</version>

<parent>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-parent</artifactId>

<version>2.7.18</version>

</parent>

<dependencies>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-web</artifactId>

</dependency>

<dependency>

<groupId>org.springframework.cloud</groupId>

<artifactId>spring-cloud-starter-netflix-eureka-client</artifactId>

</dependency>

</dependencies>

<dependencyManagement>

<dependencies>

<dependency>

<groupId>org.springframework.cloud</groupId>

<artifactId>spring-cloud-dependencies</artifactId>

<version>2021.0.8</version>

<type>pom</type>

<scope>import</scope>

</dependency>

</dependencies>

</dependencyManagement>

</project>

**REGISTER LOAN MICROSERVICE**

LoanApplication.java

package com.cognizant.loan;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

import org.springframework.cloud.client.discovery.EnableDiscoveryClient;

@SpringBootApplication

@EnableDiscoveryClient

public class LoanApplication {

public static void main(String[] args) {

SpringApplication.run(LoanApplication.class, args);

}

}

LoanController.java

package com.cognizant.loan;

import org.springframework.web.bind.annotation.\*;

@RestController

@RequestMapping("/loans")

public class LoanController {

@GetMapping("/{number}")

public Loan getLoan(@PathVariable String number) {

return new Loan(number, "car", 400000.0, 3258.0, 18);

}

record Loan(String number, String type, double loan, double emi, int tenure) {}

}

application.properties

server.port=8081

spring.application.name=loan-service

eureka.client.service-url.defaultZone=http://localhost:8761/eureka

pom.xml

<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.cognizant</groupId>

<artifactId>loan</artifactId>

<version>1.0.0</version>

<parent>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-parent</artifactId>

<version>2.7.18</version>

</parent>

<dependencies>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-web</artifactId>

</dependency>

<dependency>

<groupId>org.springframework.cloud</groupId>

<artifactId>spring-cloud-starter-netflix-eureka-client</artifactId>

</dependency>

</dependencies>

<dependencyManagement>

<dependencies>

<dependency>

<groupId>org.springframework.cloud</groupId>

<artifactId>spring-cloud-dependencies</artifactId>

<version>2021.0.8</version>

<type>pom</type>

<scope>import</scope>

</dependency>

</dependencies>

</dependencyManagement>

</project>

**FINAL RUN ORDER**

1.Start Eureka Discovery Server

<http://localhost:8761>

2.Start Account Service

<http://localhost:8080/accounts/123>

3.Start Loan Service

<http://localhost:8081/loans/456>

**OUTPUT**

<http://localhost:8761>

