**API-Gateway**

**week5/Microservices-SpringBoot/cutomer-billing-system/api-gateway/pom.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 https://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<parent>

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

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

<version>3.5.3</version>

<relativePath/> <!-- lookup parent from repository -->

</parent>

<groupId>com.example</groupId>

<artifactId>api-gateway</artifactId>

<version>0.0.1-SNAPSHOT</version>

<name>api-gateway</name>

<description>Demo project for api gateway for spring cloud config</description>

<url/>

<licenses>

<license/>

</licenses>

<developers>

<developer/>

</developers>

<scm>

<connection/>

<developerConnection/>

<tag/>

<url/>

</scm>

<properties>

<java.version>21</java.version>

<spring-cloud.version>2025.0.0</spring-cloud.version>

</properties>

<dependencies>

<dependency>

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

<artifactId>spring-cloud-starter-gateway</artifactId>

</dependency>

<dependency>

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

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

</dependency>

<dependency>

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

<artifactId>spring-boot-starter-data-redis</artifactId>

</dependency>

<dependency>

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

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

<scope>test</scope>

</dependency>

</dependencies>

<dependencyManagement>

<dependencies>

<dependency>

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

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

<version>${spring-cloud.version}</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>

**week5/Microservices-SpringBoot/cutomer-billing-system/api-gateway/src/test/java/com/example/apigateway/ApiGatewayApplicationTests.java**

package com.example.apigateway;

import org.junit.jupiter.api.Test;

import org.springframework.boot.test.context.SpringBootTest;

@SpringBootTest

class ApiGatewayApplicationTests {

@Test

void contextLoads() {

}

}

**week5/Microservices-SpringBoot/cutomer-billing-system/api-gateway/src/main/resources/application.yml**

server:

port: 8080

spring:

application:

name: api-gateway

cloud:

gateway:

routes:

- id: customer-service

uri: http://localhost:8081

predicates:

- Path=/customer/\*\*

filters:

- RewritePath=/customer/(?<segment>.\*), /${segment}

- name: RequestRateLimiter

args:

redis-rate-limiter.replenishRate: 5

redis-rate-limiter.burstCapacity: 10

- id: billing-service

uri: http://localhost:8082

predicates:

- Path=/billing/\*\*

filters:

- RewritePath=/billing/(?<segment>.\*), /${segment}

- name: RequestRateLimiter

args:

redis-rate-limiter.replenishRate: 3

redis-rate-limiter.burstCapacity: 5

redis:

host: localhost

port: 6379

management:

endpoints:

web:

exposure:

include: "\*"

**week5/Microservices-SpringBoot/cutomer-billing-system/api-gateway/src/main/java/com/example/apigateway/ApiGatewayApplication.java**

package com.example.apigateway;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication

public class ApiGatewayApplication {

public static void main(String[] args) {

SpringApplication.run(ApiGatewayApplication.class, args);

}

}