**Hello World RESTful Web Service**

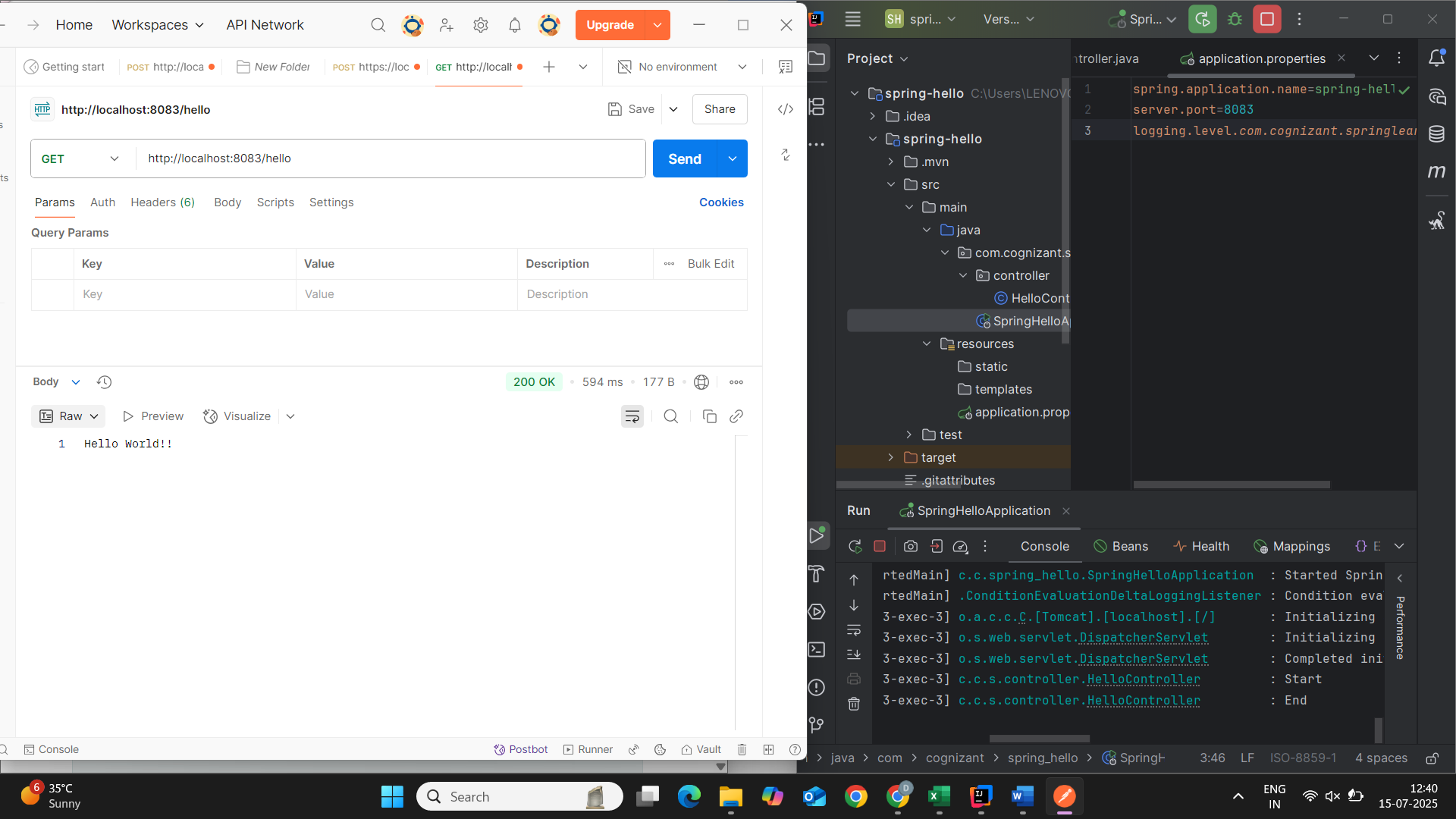
**HelloController.java :**

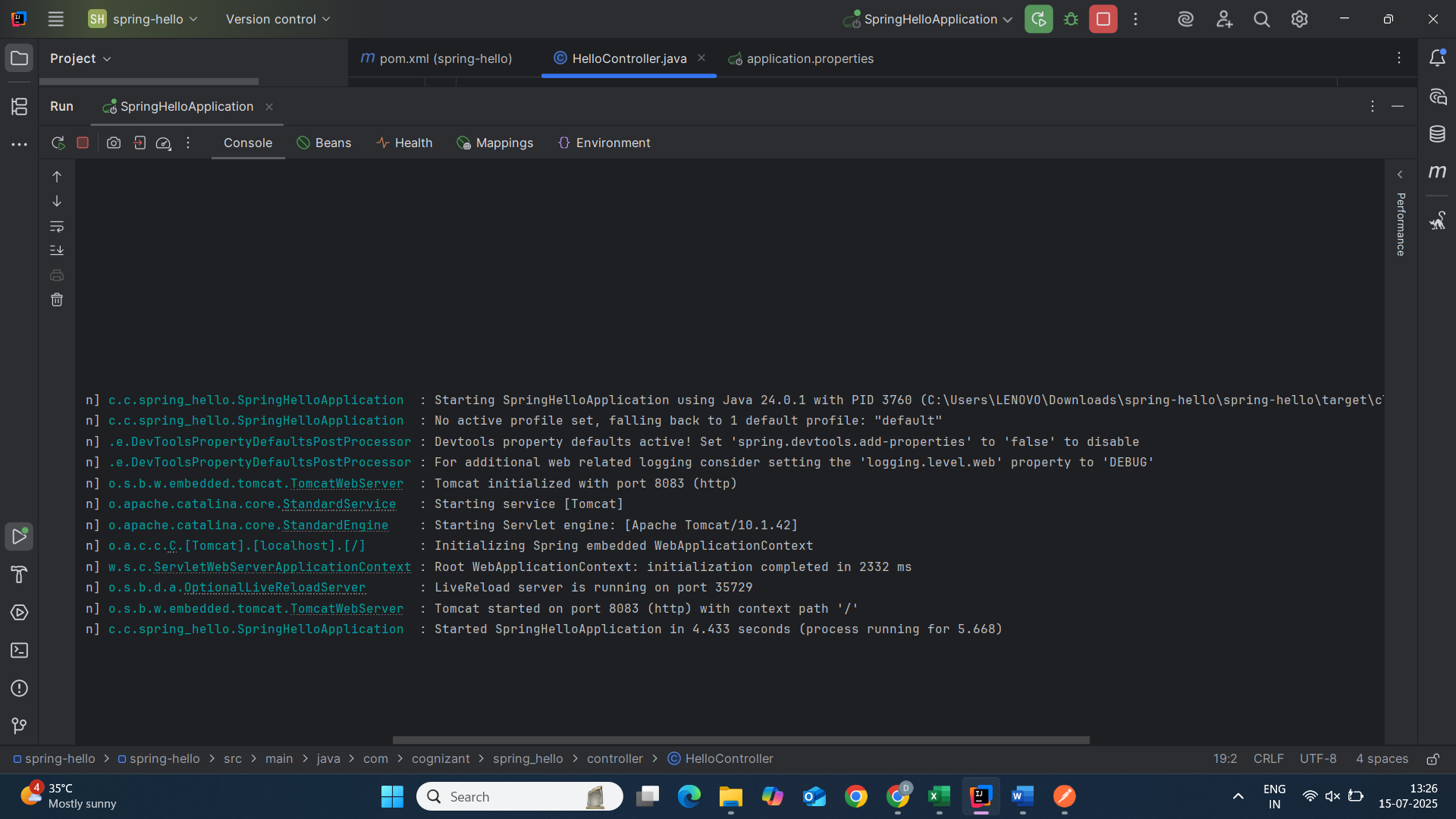
package com.cognizant.spring\_hello.controller;  
  
import org.slf4j.Logger;  
import org.slf4j.LoggerFactory;  
import org.springframework.web.bind.annotation.GetMapping;  
import org.springframework.web.bind.annotation.RestController;  
  
@RestController  
public class HelloController {  
 private static final Logger *LOGGER* = LoggerFactory.*getLogger*(HelloController.class);  
  
 @GetMapping("/hello")  
 public String sayHello() {  
 *LOGGER*.info("Start");  
 String response = "Hello World!!";  
 *LOGGER*.info("End");  
 return response;  
 }  
}

**application.properties :**

spring.application.name=spring-hello  
server.port=8083  
logging.level.com.cognizant.springlearn=DEBUG

**OUTPUT :**

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**REST - Country Web Service**

**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.cognizant.spring-learn</groupId>  
 <artifactId>country-service</artifactId>  
 <version>0.0.1-SNAPSHOT</version>  
 <name>country-service</name>  
 <description>Demo project for Spring Boot</description>  
 <url/>  
 <licenses>  
 <license/>  
 </licenses>  
 <developers>  
 <developer/>  
 </developers>  
 <scm>  
 <connection/>  
 <developerConnection/>  
 <tag/>  
 <url/>  
 </scm>  
 <properties>  
 <java.version>24</java.version>  
 </properties>  
 <dependencies>  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-web</artifactId>  
 </dependency>  
  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-devtools</artifactId>  
 <scope>runtime</scope>  
 <optional>true</optional>  
 </dependency>  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-test</artifactId>  
 <scope>test</scope>  
 </dependency>  
 <dependency>  
 <groupId>org.springframework</groupId>  
 <artifactId>spring-context</artifactId>  
 </dependency>  
  
 <!-- Jackson Databind (if not already pulled via Web) -->  
 <dependency>  
 <groupId>com.fasterxml.jackson.core</groupId>  
 <artifactId>jackson-databind</artifactId>  
 </dependency>  
 </dependencies>  
  
 <build>  
 <plugins>  
 <plugin>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-maven-plugin</artifactId>  
 </plugin>  
 </plugins>  
 </build>  
  
</project>

**spring-config.xml :**

<beans xmlns="http://www.springframework.org/schema/beans"  
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:schemaLocation="  
 http://www.springframework.org/schema/beans  
 http://www.springframework.org/schema/beans/spring-beans.xsd">  
  
 <bean id="country" class="com.cognizant.spring\_learn.country\_service.model.Country">  
 <property name="code" value="IN"/>  
 <property name="name" value="India"/>  
 </bean>  
</beans>

**Country.java :**

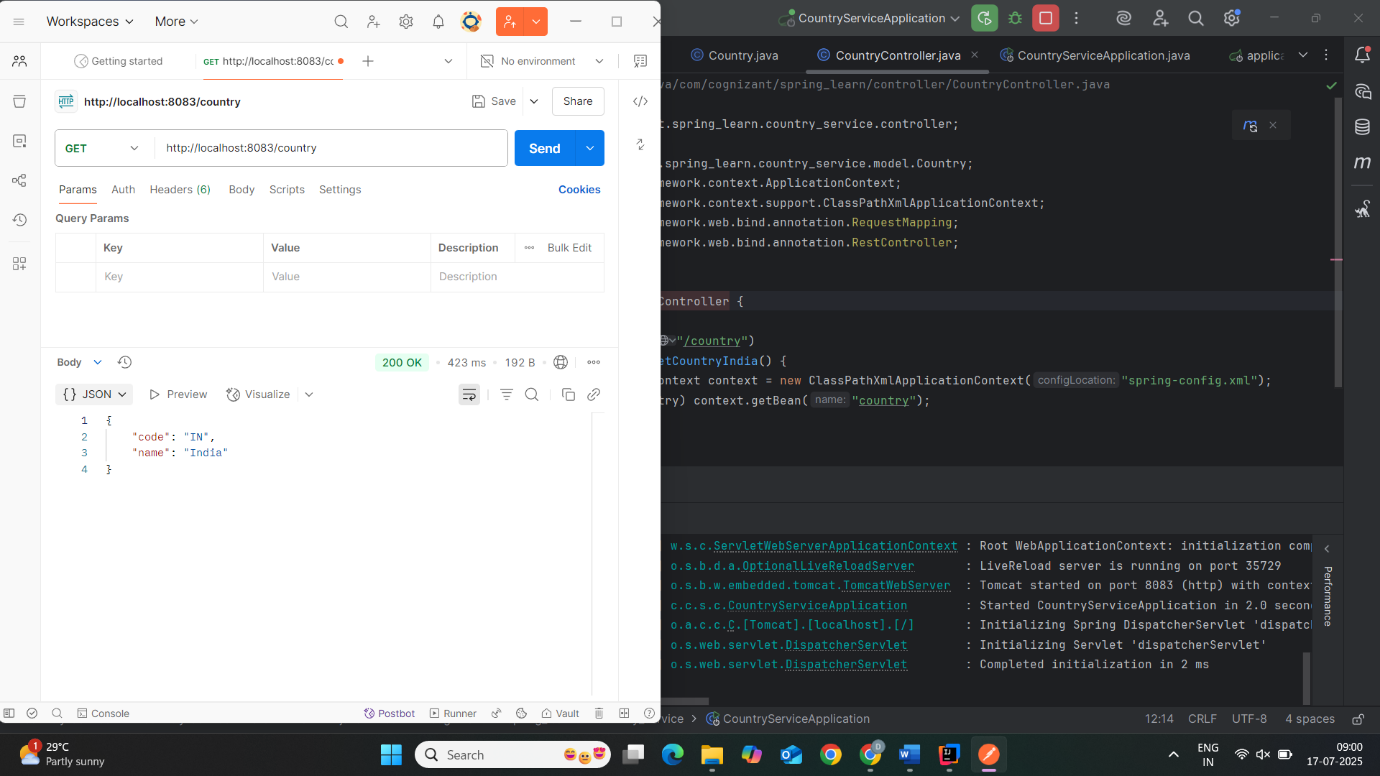
package com.cognizant.spring\_learn.country\_service.model;  
  
public class Country {  
 private String code;  
 private String name;  
  
 // Constructors  
 public Country() {  
 }  
  
 public Country(String code, String name) {  
 this.code = code;  
 this.name = name;  
 }  
  
 // Getters and Setters  
 public String getCode() {  
 return code;  
 }  
  
 public void setCode(String code) {  
 this.code = code;  
 }  
  
 public String getName() {  
 return name;  
 }  
  
 public void setName(String name) {  
 this.name = name;  
 }  
}

**CountryController.java :**  
package com.cognizant.spring\_learn.country\_service.controller;  
  
import com.cognizant.spring\_learn.country\_service.model.Country;  
import org.springframework.context.ApplicationContext;  
import org.springframework.context.support.ClassPathXmlApplicationContext;  
import org.springframework.web.bind.annotation.RequestMapping;  
import org.springframework.web.bind.annotation.RestController;  
  
@RestController  
public class CountryController {  
  
 @RequestMapping("/country")  
 public Country getCountryIndia() {  
 ApplicationContext context = new ClassPathXmlApplicationContext("spring-config.xml");  
 return (Country) context.getBean("country");  
 }  
}

**CountryServiceApplication.java :**

package com.cognizant.spring\_learn.country\_service;  
  
import org.springframework.boot.SpringApplication;  
import org.springframework.boot.autoconfigure.SpringBootApplication;  
import org.springframework.context.annotation.ImportResource;  
@SpringBootApplication  
@ImportResource("classpath:spring-config.xml")  
public class CountryServiceApplication {  
  
 public static void main(String[] args) {  
 SpringApplication.*run*(CountryServiceApplication.class, args);  
 }  
}

**OUTPUT :**

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**REST - Get all countries**

**spring-config.xml :**

<?xml version="1.0" encoding="UTF-8"?>  
<beans xmlns="http://www.springframework.org/schema/beans"  
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:schemaLocation="  
 http://www.springframework.org/schema/beans  
 http://www.springframework.org/schema/beans/spring-beans.xsd">  
  
 <!-- Define individual countries -->  
 <bean id="in" class="com.cognizant.spring\_learn.country\_service.model.Country">  
 <property name="code" value="IN"/>  
 <property name="name" value="India"/>  
 </bean>  
  
 <bean id="us" class="com.cognizant.spring\_learn.country\_service.model.Country">  
 <property name="code" value="US"/>  
 <property name="name" value="United States"/>  
 </bean>  
  
 <bean id="jp" class="com.cognizant.spring\_learn.country\_service.model.Country">  
 <property name="code" value="JP"/>  
 <property name="name" value="Japan"/>  
 </bean>  
  
 <bean id="de" class="com.cognizant.spring\_learn.country\_service.model.Country">  
 <property name="code" value="DE"/>  
 <property name="name" value="Germany"/>  
 </bean>  
  
 <!-- Define list of countries -->  
 <bean id="countryList" class="java.util.ArrayList">  
 <constructor-arg>  
 <list>  
 <ref bean="in"/>  
 <ref bean="us"/>  
 <ref bean="jp"/>  
 <ref bean="de"/>  
 </list>  
 </constructor-arg>  
 </bean>  
</beans>

**Country.java :**

package com.cognizant.spring\_learn.country\_service.model;  
public class Country {  
 private String code;  
 private String name;  
  
 public Country() {  
 }  
  
 public Country(String code, String name) {  
 this.code = code;  
 this.name = name;  
 }  
  
 // Getters and Setters  
 public String getCode() {  
 return code;  
 }  
  
 public void setCode(String code) {  
 this.code = code;  
 }  
  
 public String getName() {  
 return name;  
 }  
  
 public void setName(String name) {  
 this.name = name;  
 }  
}

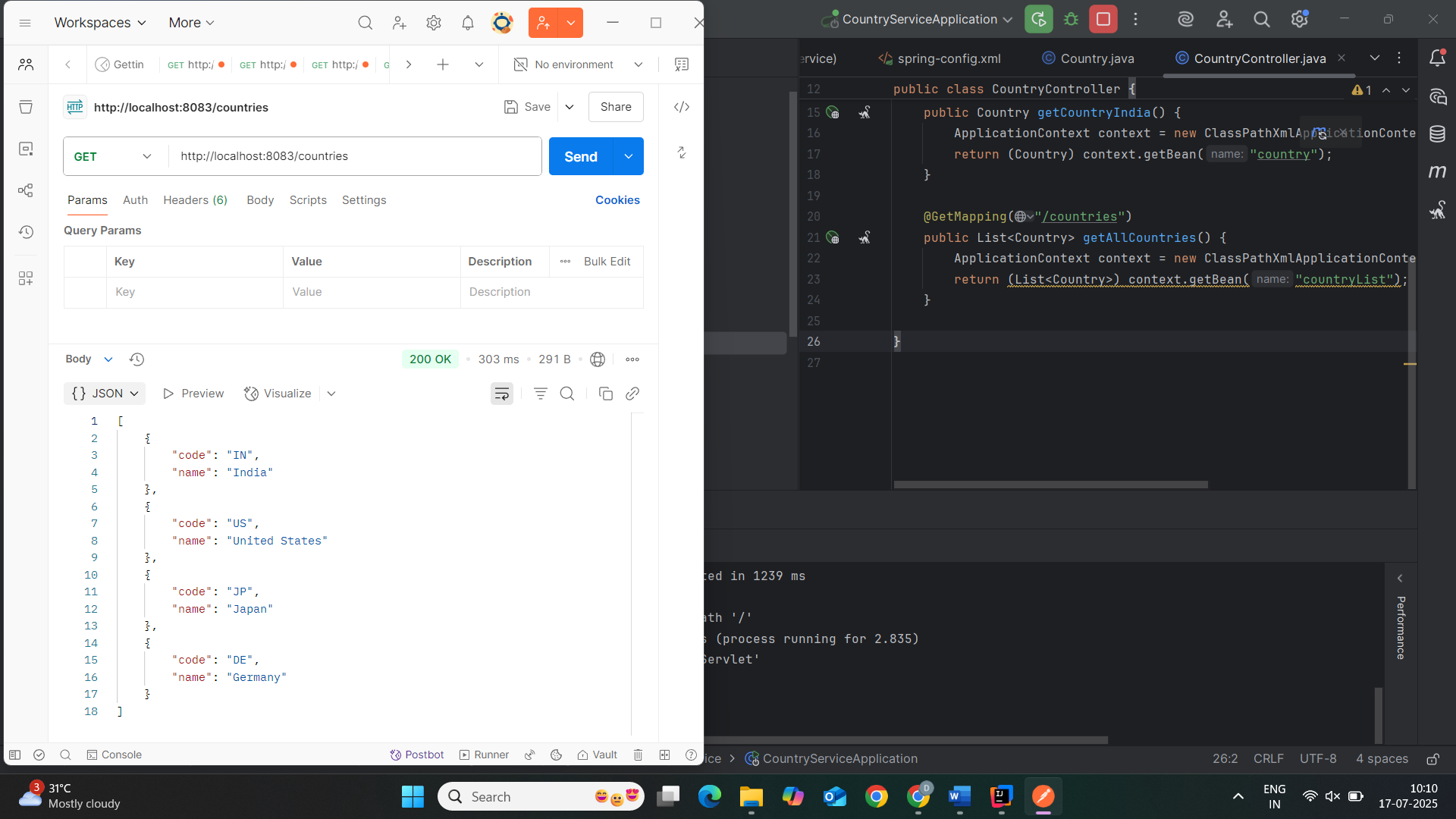
**CountryController.java :**

package com.cognizant.spring\_learn.country\_service.controller;  
import com.cognizant.spring\_learn.country\_service.model.Country;  
import org.springframework.context.ApplicationContext;  
import org.springframework.context.support.ClassPathXmlApplicationContext;  
import org.springframework.web.bind.annotation.GetMapping;  
import org.springframework.web.bind.annotation.RestController;  
  
import java.util.List;  
  
@RestController  
public class CountryController {  
  
 @GetMapping("/country")  
 public Country getCountryIndia() {  
 ApplicationContext context = new ClassPathXmlApplicationContext("spring-config.xml");  
 return (Country) context.getBean("country");  
 }  
  
 @GetMapping("/countries")  
 public List<Country> getAllCountries() {  
 ApplicationContext context = new ClassPathXmlApplicationContext("spring-config.xml");  
 return (List<Country>) context.getBean("countryList");  
 }  
  
}

**CountryServiceApplication.java :**

package com.cognizant.spring\_learn.country\_service;  
import org.springframework.boot.SpringApplication;  
import org.springframework.boot.autoconfigure.SpringBootApplication;  
import org.springframework.context.annotation.ImportResource;  
@SpringBootApplication  
@ImportResource("classpath:spring-config.xml")  
public class CountryServiceApplication {  
  
 public static void main(String[] args) {  
 SpringApplication.*run*(CountryServiceApplication.class, args);  
 }  
}

**OUTPUT :**

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**REST - Get country based on country code**

**spring-config.xml :**

<?xml version="1.0" encoding="UTF-8"?>  
<beans xmlns="http://www.springframework.org/schema/beans"  
 xmlns:context="http://www.springframework.org/schema/context"  
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:schemaLocation="  
 http://www.springframework.org/schema/beans  
 http://www.springframework.org/schema/beans/spring-beans.xsd  
 http://www.springframework.org/schema/context  
 http://www.springframework.org/schema/context/spring-context.xsd">  
  
 <bean id="country1" class="com.cognizant.spring\_learn.country\_service.model.Country">  
 <property name="code" value="US"/>  
 <property name="name" value="United States"/>  
 </bean>  
  
 <bean id="country2" class="com.cognizant.spring\_learn.country\_service.model.Country">  
 <property name="code" value="DE"/>  
 <property name="name" value="Germany"/>  
 </bean>  
  
 <bean id="country3" class="com.cognizant.spring\_learn.country\_service.model.Country">  
 <property name="code" value="IN"/>  
 <property name="name" value="India"/>  
 </bean>  
  
 <bean id="country4" class="com.cognizant.spring\_learn.country\_service.model.Country">  
 <property name="code" value="JP"/>  
 <property name="name" value="Japan"/>  
 </bean>  
  
 <bean id="countryList" class="java.util.ArrayList">  
 <constructor-arg>  
 <list>  
 <ref bean="country1"/>  
 <ref bean="country2"/>  
 <ref bean="country3"/>  
 <ref bean="country4"/>  
 </list>  
 </constructor-arg>  
 </bean>  
</beans>

**Country.java :**

package com.cognizant.spring\_learn.country\_service.model;  
  
public class Country {  
 private String code;  
 private String name;  
  
 // Constructors  
 public Country() {  
 }  
  
 public Country(String code, String name) {  
 this.code = code;  
 this.name = name;  
 }  
  
 // Getters and Setters  
 public String getCode() {  
 return code;  
 }  
  
 public void setCode(String code) {  
 this.code = code;  
 }  
  
 public String getName() {  
 return name;  
 }  
  
 public void setName(String name) {  
 this.name = name;  
 }  
}

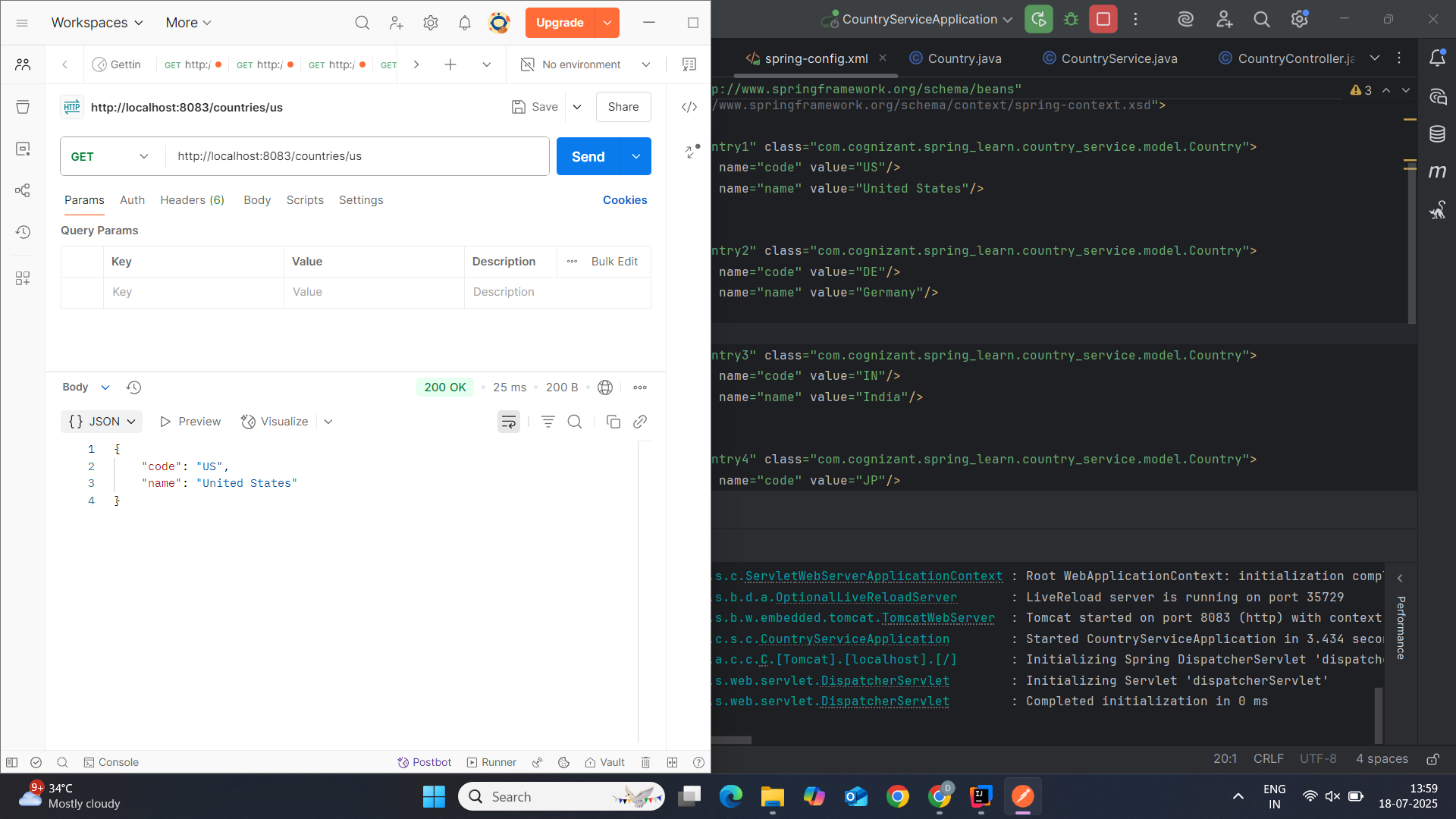
**CountryService.java :**

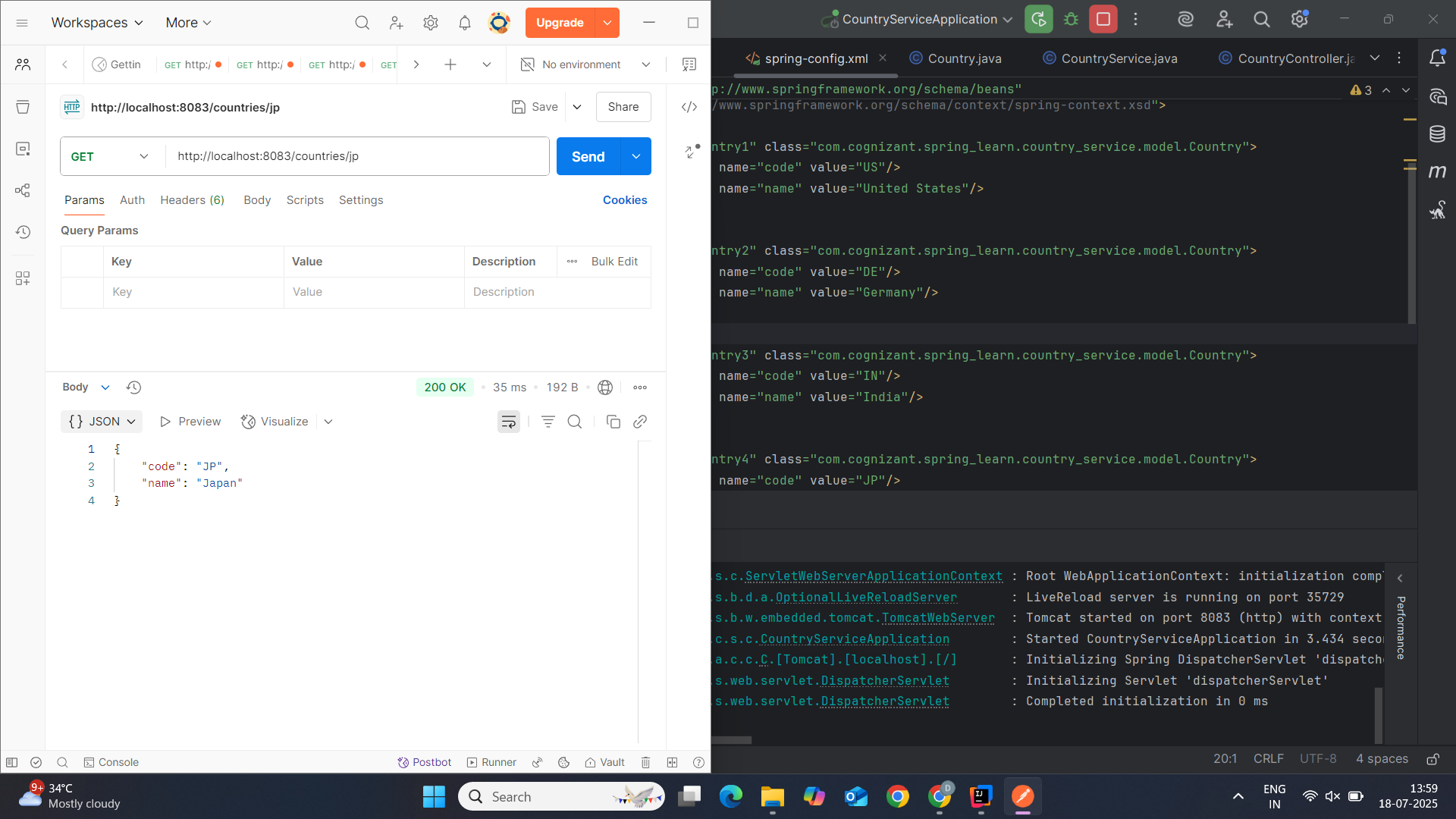
package com.cognizant.spring\_learn.country\_service.service;  
  
import com.cognizant.spring\_learn.country\_service.model.Country;  
import org.springframework.context.ApplicationContext;  
import org.springframework.context.support.ClassPathXmlApplicationContext;  
import org.springframework.stereotype.Service;  
  
import java.util.List;  
  
@Service  
public class CountryService {  
  
 public Country getCountry(String code) {  
 ApplicationContext context = new ClassPathXmlApplicationContext("spring-config.xml");  
 List<Country> countries = (List<Country>) context.getBean("countryList");  
  
 return countries.stream()  
 .filter(c -> c.getCode().equalsIgnoreCase(code))  
 .findFirst()  
 .orElse(null);  
 }  
}

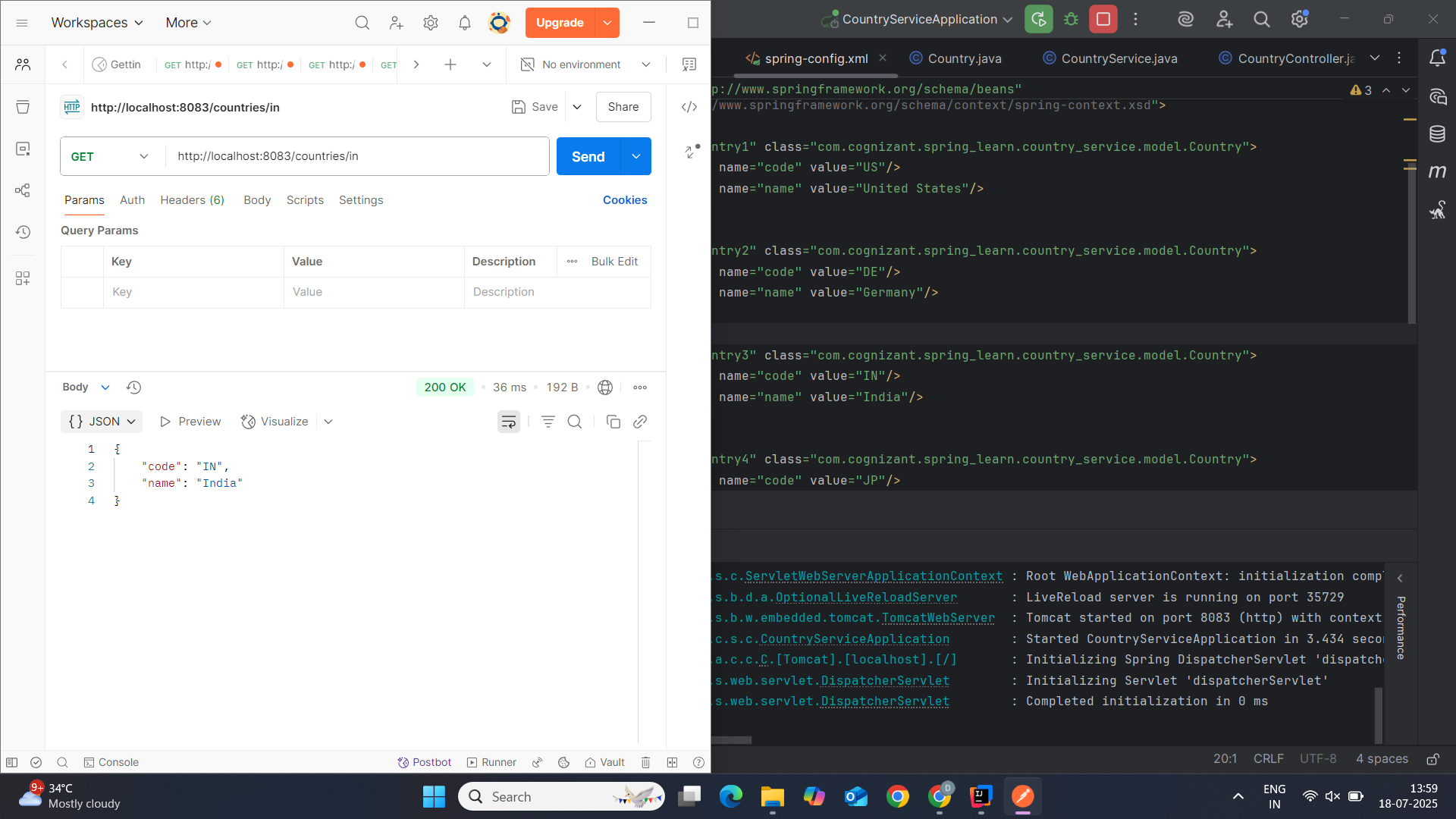
**CountryController.java :**

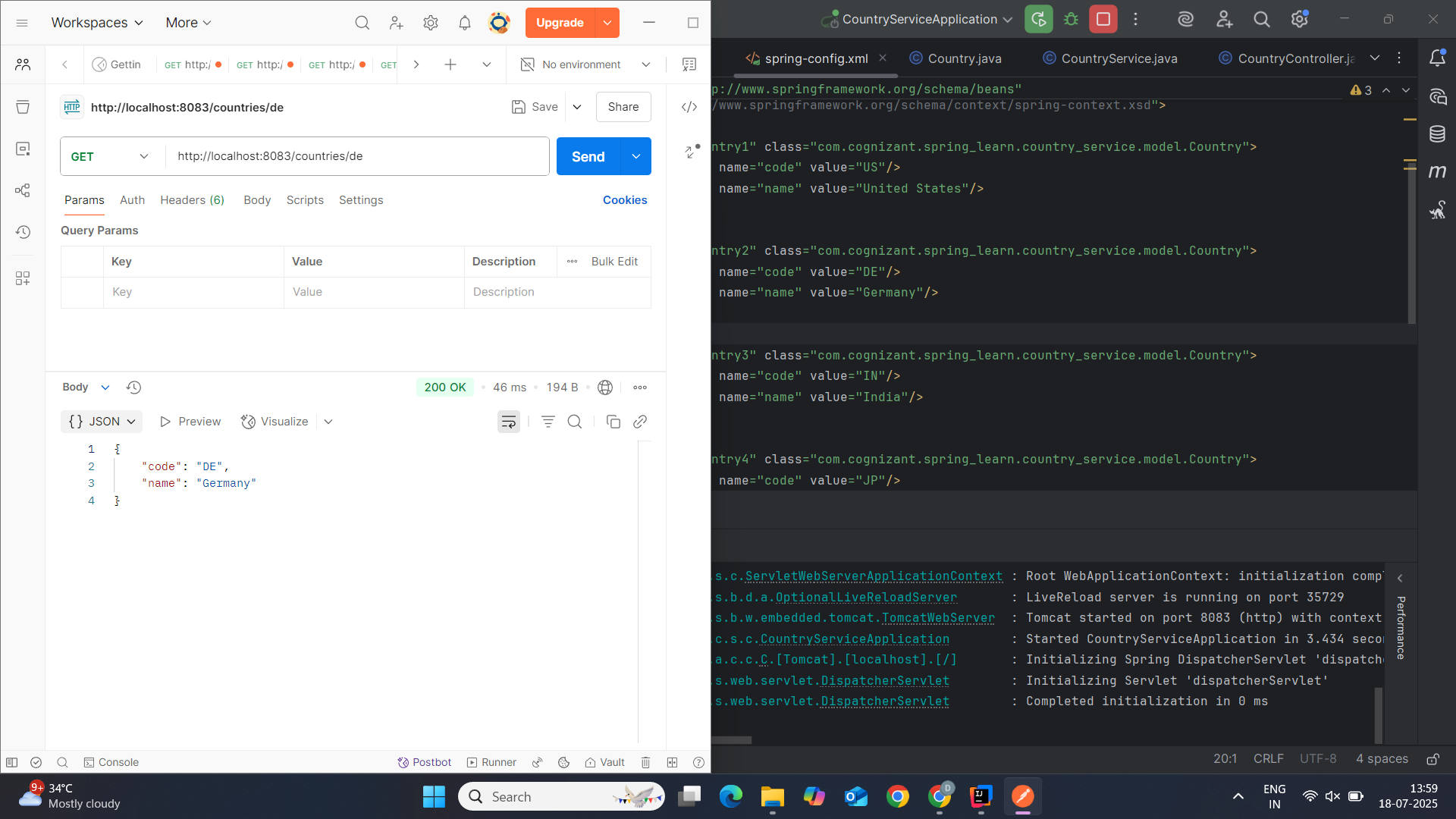
package com.cognizant.spring\_learn.country\_service.controller;  
  
import com.cognizant.spring\_learn.country\_service.model.Country;  
import com.cognizant.spring\_learn.country\_service.service.CountryService;  
import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.web.bind.annotation.\*;  
  
@RestController  
public class CountryController {  
  
 @Autowired  
 private CountryService countryService;  
  
 @GetMapping("/countries/{code}")  
 public Country getCountry(@PathVariable String code) {  
 return countryService.getCountry(code);  
 }  
}

**OUTPUT :**

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