**Exercise 2 - REST - Get country based on country code**

**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

                             https://maven.apache.org/xsd/maven-4.0.0.xsd">

  <modelVersion>4.0.0</modelVersion>

  <groupId>com.cognizant</groupId>

  <artifactId>spring-learn</artifactId>

  <version>0.0.1-SNAPSHOT</version>

  <packaging>jar</packaging>

  <parent>

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

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

    <version>3.1.3</version>

    <relativePath/>

  </parent>

  <properties>

    <java.version>17</java.version>

  </properties>

  <dependencies>

    <dependency>

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

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

    </dependency>

    <dependency>

      <groupId>org.slf4j</groupId>

      <artifactId>slf4j-api</artifactId>

    </dependency>

    <dependency>

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

      <artifactId>spring-boot-devtools</artifactId>

      <scope>runtime</scope>

    </dependency>

    <dependency>

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

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

      <scope>test</scope>

    </dependency>

  </dependencies>

  <build>

    <plugins>

      <plugin>

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

        <artifactId>spring-boot-maven-plugin</artifactId>

      </plugin>

    </plugins>

  </build>

</project>

**CountryController.java**

package com.cognizant.spring\_learn.controller;

import com.cognizant.spring\_learn.Country;

import com.cognizant.spring\_learn.service.CountryService;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

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

import java.util.List;

@RestController

public class CountryController {

    private static final Logger LOGGER = LoggerFactory.getLogger(CountryController.class);

    @Autowired

    private CountryService countryService;

    @RequestMapping("/country")

    public Country getCountryIndia() {

        LOGGER.info("START");

        ApplicationContext context = new ClassPathXmlApplicationContext("country.xml");

        Country country = context.getBean("country", Country.class);

        LOGGER.info("END");

        return country;

    }

    @GetMapping("/countries")

    public List<Country> getAllCountries() {

        LOGGER.info("START");

        ApplicationContext context = new ClassPathXmlApplicationContext("country.xml");

        List<Country> countryList = context.getBean("countryList", List.class);

        LOGGER.info("END");

        return countryList;

    }

    @GetMapping("/countries/{code}")

    public Country getCountry(@PathVariable String code) {

        LOGGER.info("START");

        Country country = countryService.getCountry(code);

        LOGGER.info("END");

        return country;

    }

}

**CountryService.java**

package com.cognizant.spring\_learn.service;

import com.cognizant.spring\_learn.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("country.xml");

        List<Country> countryList = context.getBean("countryList", List.class);

        // Use lambda to filter (case-insensitive)

        return countryList.stream()

                .filter(country -> country.getCode().equalsIgnoreCase(code))

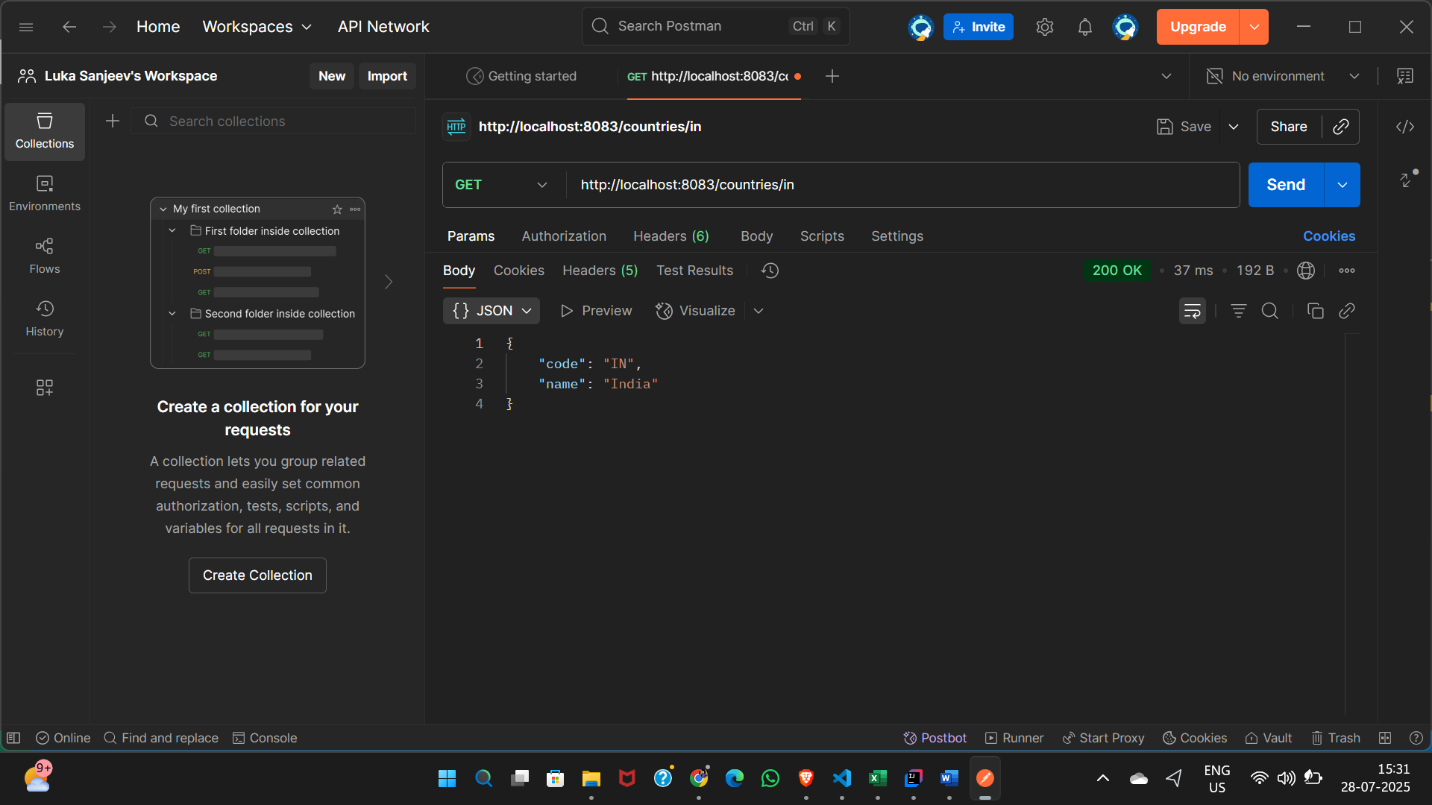
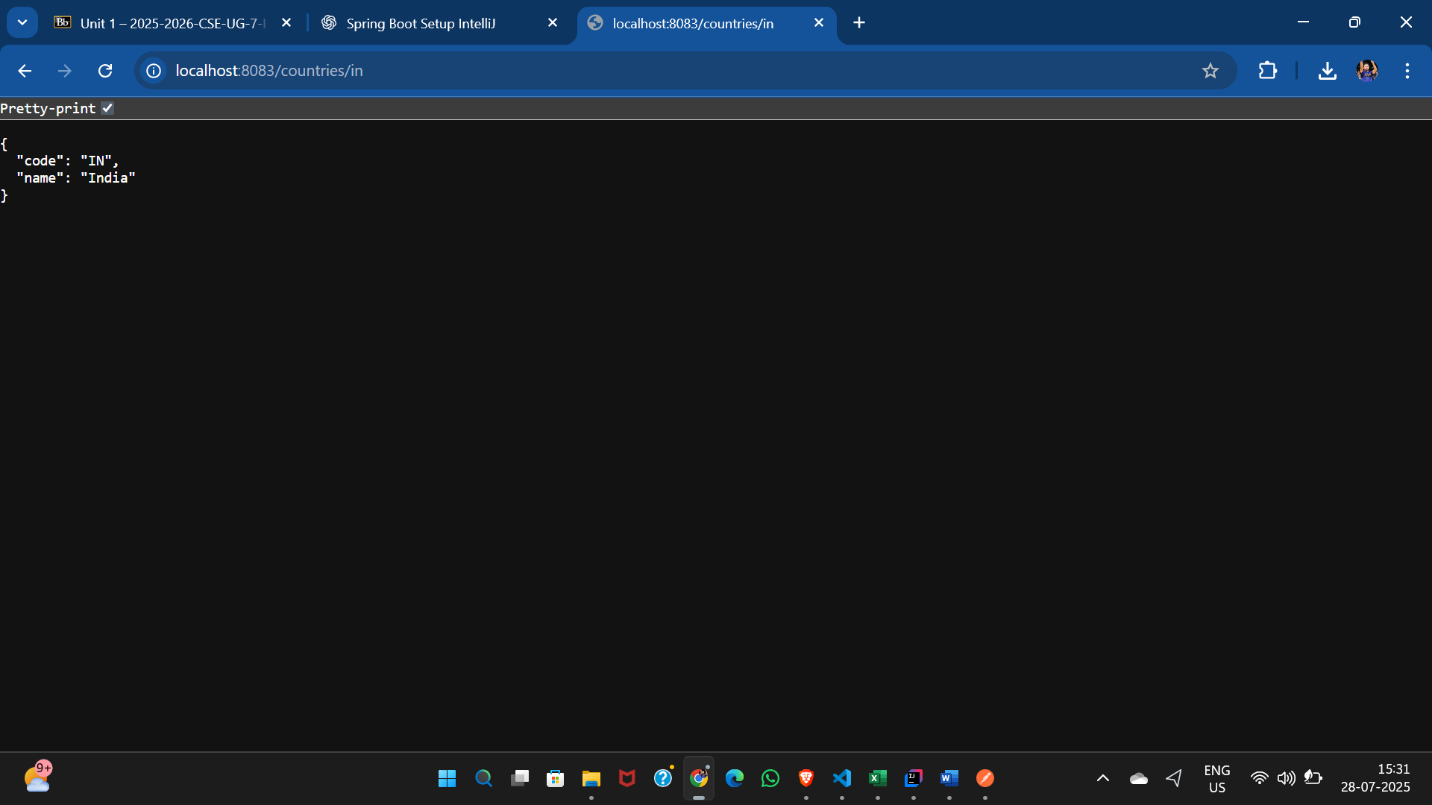
                .findFirst()

                .orElse(null);

    }

}

**Output:**

****