REST - Get country based on country code

Write a REST service that returns a specific country based on country code. The country code should be case insensitive.

Controller: com.cognizant.spring-learn.controller.CountryController
Method Annotation: @GetMapping("/countries/{code}")
Method Name: getCountry(String code)
Method Implemetation: Invoke countryService.getCountry(code)
Service Method: com.cognizant.spring-learn.service.CountryService.getCountry(String code)

Service Method Implementation:

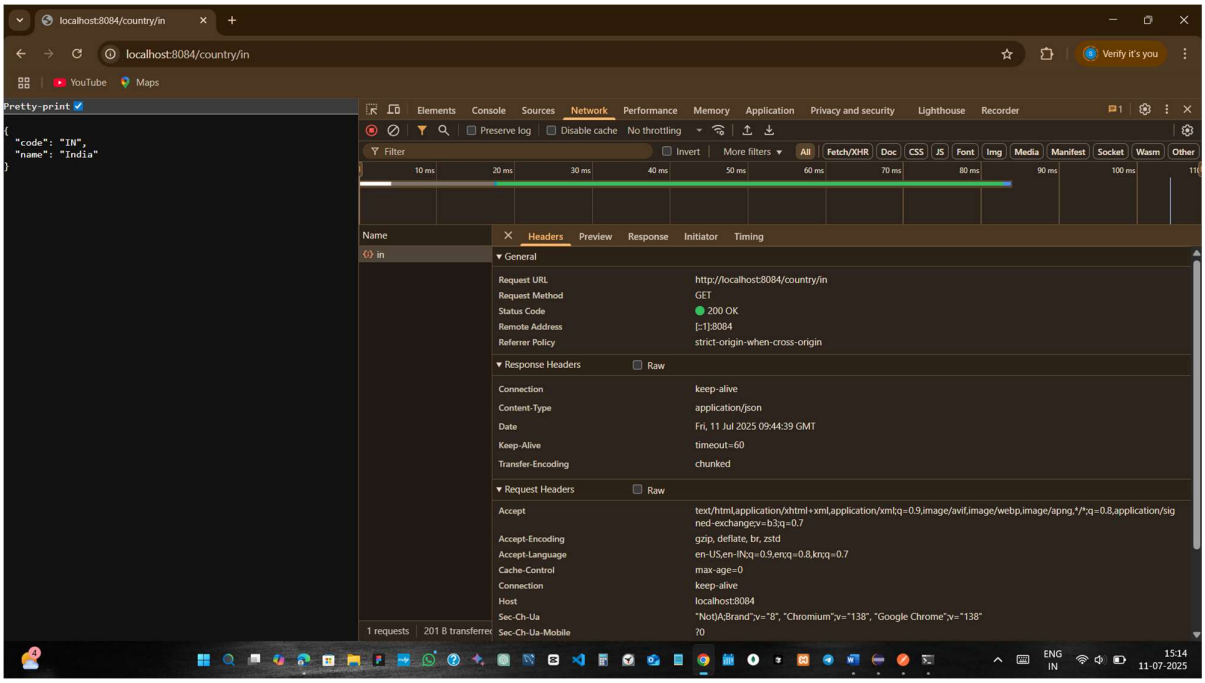
- Get the country code using @PathVariable
- Get country list from country.xml
- Iterate through the country list
- Make a case insensitive matching of country code and return the country.
- Lambda expression can also be used instead of iterating the country list

Sample Request: http://localhost:8083/country/in

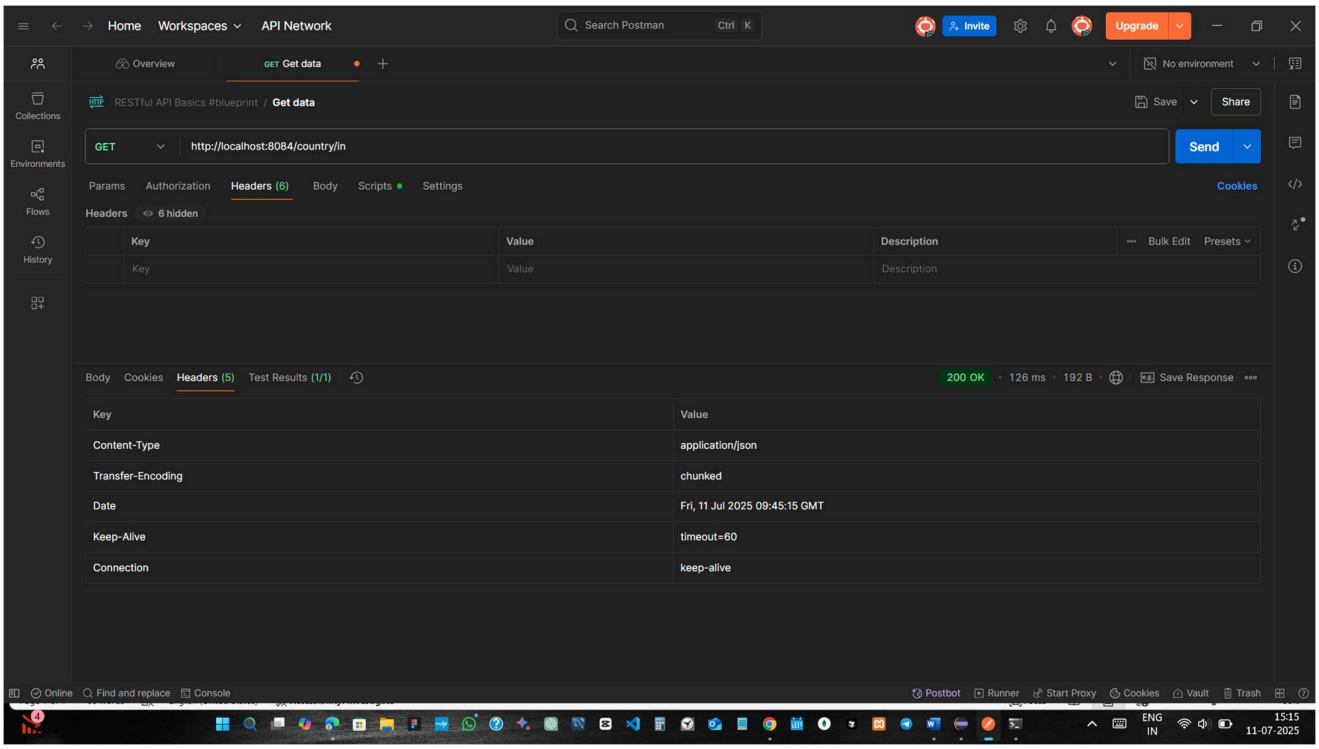
Sample Response:

```
{
 "code": "IN",
 "name": "India"
}
```

Result: chrome



Postman:



Country.xml file

```
<?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
    https://www.springframework.org/schema/beans/spring-beans.xsd">

  <bean id="in" class="com.cognizant.spring_learn.model.Country">
    <property name="code" value="IN" />
    <property name="name" value="India" />
  </bean>
  <bean id="countryList" class="java.util.ArrayList">
    <constructor-arg>
      <list>
        <ref bean="in" />
      </list>
    </constructor-arg>
  </bean>
</beans>
```

SpringLearnApplication.java

```
package com.cognizant.spring_learn;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication  // <- By default, it scans the com.cognizant.spring_learn.* packages
public class SpringLearnApplication {
   public static void main(String[] args) {
      SpringApplication.run(SpringLearnApplication.class, args);
   }
}
```

ContryController.java

```
package com.cognizant.spring_learn;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

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

Country.java

```
package com.cognizant.spring_learn.model;


public class Country {
   private String code;
   private String name;

   public Country() {}

   public Country(String code, String name) {
      this.code = code;
      this.name = name;
   }

   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.service;

import com.cognizant.spring_learn.model.Country;
import org.springframework.stereotype.Service;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;

import java.util.List;

@Service
public class CountryService {

  private ApplicationContext context;

        public Country getCountry(String code) {
    context = new ClassPathXmlApplicationContext("country.xml");
    List<Country> countryList = context.getBean("countryList", List.class);
    return countryList.stream()
        .filter(country -> country.getCode().equalsIgnoreCase(code))
        .findFirst()
        .orElse(null);
  }
}
```