5. 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"

}

**Code Snippets: SpringLearnApplication.java:**

package com.cognizant.spring\_learn;

import com.cognizant.spring\_learn.Controller.HelloController; import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication; import org.springframework.context.ApplicationContext;

import org.springframework.context.annotation.ImportResource;

import org.springframework.context.support.ClassPathXmlApplicationContext;

@SpringBootApplication @ImportResource("country.xml") public class SpringLearnApplication {

public static void main(String[] args) { SpringApplication.*run*(SpringLearnApplication.class,args);

}

}

**pom.xml:**

<?xml version="1.0" encoding="UTF-8"?>

<project xmlns[="http://maven.apache.org/POM/4.0.0"](http://maven.apache.org/POM/4.0.0) xmlns:xsi[="http://www.w3.org/2001/XMLSchema-instance"](http://www.w3.org/2001/XMLSchema-instance)

xsi:schemaLocation[="http://maven.apache.org/POM/4.0.0](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</groupId>

<artifactId>spring-learn</artifactId>

<version>0.0.1-SNAPSHOT</version>

<name>spring-learn</name>

<description>Demo project for Spring Boot</description>

<url/>

<licenses>

<license/>

</licenses>

<developers>

<developer/>

</developers>

<scm>

<connection/>

<developerConnection/>

<tag/>

<url/>

</scm>

<properties>

<java.version>21</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>

</dependencies>

<build>

<plugins>

<plugin>

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

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

</plugin>

</plugins>

</build>

</project>

**HelloController.java:**

package com.cognizant.spring\_learn.Controller; import com.cognizant.spring\_learn.Country;

import com.cognizant.spring\_learn.Service.CountryService; import org.springframework.beans.factory.annotation.Autowired; import org.springframework.web.bind.annotation.GetMapping; import org.springframework.web.bind.annotation.PathVariable; import org.springframework.web.bind.annotation.RestController; import java.util.List;

@RestController

public class HelloController { private CountryService service; @Autowired

public HelloController(CountryService service){ this.service=service;

}

@GetMapping("/country/{code}")

public Country getDetails(@PathVariable String code){ return service.getCountry(code);

}

}

**CountryService.java:**

package com.cognizant.spring\_learn.Service; import com.cognizant.spring\_learn.Country;

import java.util.List; import java.util.Optional;

public class CountryService {

private List<Country> countryList;

public void setCountryList(List<Country> countryList) { this.countryList = countryList;

}

public List<Country> getAllCountries() { return countryList;

}

public Country getCountry(String code){ for(Country c:countryList){

if(c.getCode().equalsIgnoreCase(code)) return c;

}

return null;

}

}

**Country.java:**

package com.cognizant.spring\_learn;

public class Country { private String code; private String name; Country(){}

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;

}

@Override

public String toString() { return "Country{" +

"code='" + code + '\'' +

", name='" + name + '\'' + '}';

}

}

**Country.xml:**

<beans xmlns[="http://www.springframework.org/schema/beans"](http://www.springframework.org/schema/beans) xmlns:xsi[="http://www.w3.org/2001/XMLSchema-instance"](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 country beans -->

<bean id="country1" class="com.cognizant.spring\_learn.Country">

<property name="code" value="IN"/>

<property name="name" value="India"/>

</bean>

<bean id="country2" class="com.cognizant.spring\_learn.Country">

<property name="code" value="US"/>

<property name="name" value="United States"/>

</bean>

<bean id="country3" class="com.cognizant.spring\_learn.Country">

<property name="code" value="JP"/>

<property name="name" value="Japan"/>

</bean>

<bean id="country4" class="com.cognizant.spring\_learn.Country">

<property name="code" value="DE"/>

<property name="name" value="Germany"/>

</bean>

<!-- List bean -->

<bean id="countryList" class="java.util.ArrayList">

<constructor-arg>

<list>

<ref bean="country1"/>

<ref bean="country2"/>

<ref bean="country3"/>

<ref bean="country4"/>

</list>

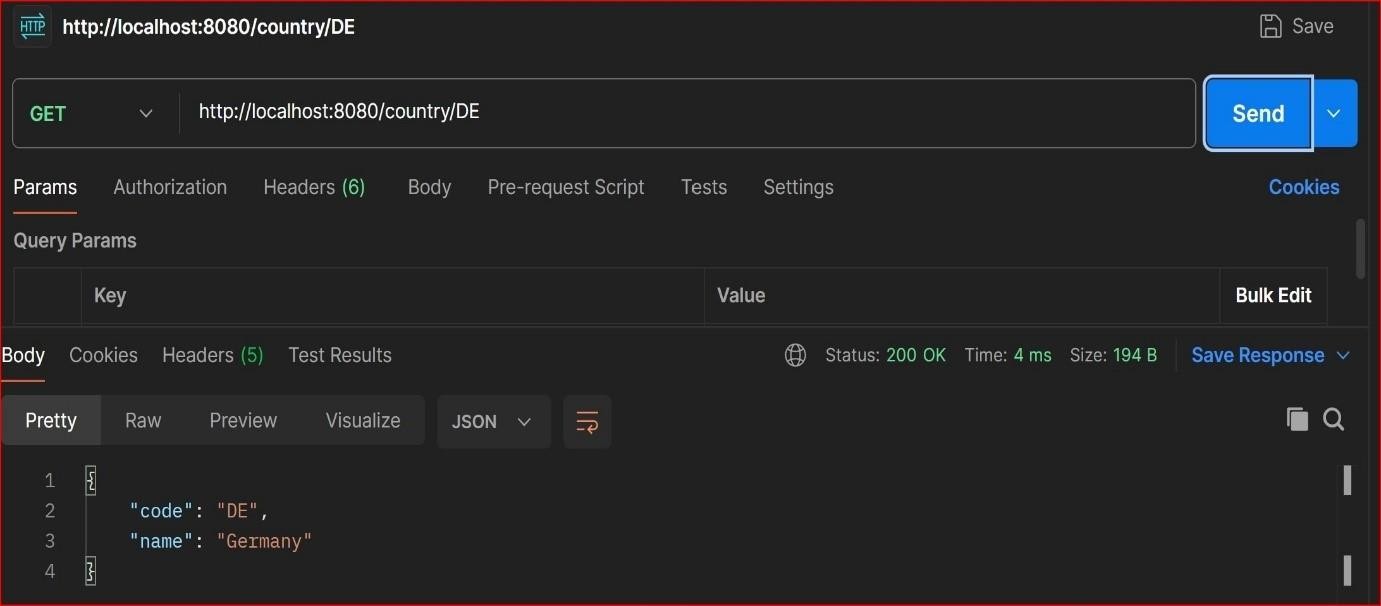
</constructor-arg>

</bean>

<bean id="service" class="com.cognizant.spring\_learn.Service.CountryService" autowire="byName"></bean>

</beans>

**Output:**

****