**REST – Get Country Based on Country Code**

**Spring REST using Spring Boot 3**

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12/7/2025

This Spring Boot RESTful service allows users to retrieve country details based on a given country code. Using Spring's XML configuration and dependency injection, the application loads a predefined list of countries and returns the matching country when requested via an HTTP GET endpoint.

**Objective:**

* To implement a RESTful endpoint /country/{code} that returns the details of a specific country.
* To read a list of countries from an XML configuration file (country.xml) using Spring's IoC container.
* To enable case-insensitive lookup of country codes using Java Stream API for clean and efficient filtering.

**Implementation:**

### Generate Project from Spring Initializr

Go to: [https://start.spring.io](https://start.spring.io" \t "_new)

Add Dependencies:

Spring Web

Spring Boot DevTools.

Click **Generate**, and download the .zip file.

Extract the zip file to a suitable folder.

### Open Project in IntelliJ IDEA

Open IntelliJ IDEA.

Click **File > Open**.

Browse and select the extracted spring-learn folder.

IntelliJ will auto-detect it as a Maven project and build it.

If prompted to import as Maven project, click **Yes** or **Import**.

**SpringLearnApplication.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;

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;

import org.springframework.context.support.ClassPathXmlApplicationContext;

import org.springframework.stereotype.Service;

import java.util.List;

@Service

public class CountryService {

public Country getCountry(String code) {

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

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

Country country = countryList.stream()

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

.findFirst()

.orElse(null);

context.close();

return country;

}

}

**CountryController.java:**

package com.cognizant.spring\_learn;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

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

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

@RestController

public class CountryController {

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

@Autowired

private CountryService countryService;

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

public Country getCountry(@PathVariable String code) {

LOGGER.info("START getCountry() for code: {}", code);

Country country = countryService.getCountry(code);

LOGGER.info("END getCountry()");

return country;

}

}

**Country.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">

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

<constructor-arg>

<list>

<ref bean="in"/>

<ref bean="us"/>

<ref bean="uk"/>

<ref bean="de"/>

</list>

</constructor-arg>

</bean>

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

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

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

</bean>

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

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

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

</bean>

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

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

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

</bean>

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

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

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

</bean>

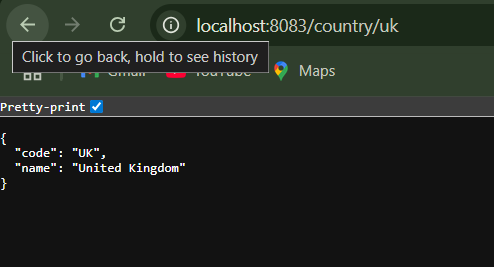
</beans>

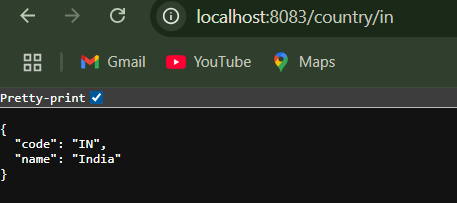
**Application.properties:**

spring.application.name=spring-learn

server.port=8083

**Output:**

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