**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**](http://localhost:8083/country/in)

**Sample Response:**

**{**

**"code": "IN",**

**"name": "India"**

**}**

**APPROACH**

**· Create POJO Country with code and name fields and provide getters/setters.**

**· Define country.xml in src/main/resources containing a list of Country beans using <bean> and <list> tags.**

**· Create CountryService class in service package, load the XML list using ClassPathXmlApplicationContext, and use a stream to match country code (case-insensitive).**

**· Create CountryController class in controller package with endpoint @GetMapping("/country/{code}"), inject CountryService, and return the matched country.**

**· Run the application and test with URL http://localhost:8083/country/in in browser or Postman to get a JSON response of the matching country.**

**CODE**

**Country.java**

**package com.cognizant.spring\_learn;**

**public class Country {**

**private String code;**

**private String name;**

**public 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;**

**}**

**}**

**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);**

**}**

**}**

**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.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()");**

**Country country = countryService.getCountry(code);**

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

**return country;**

**}**

**}**

**HelloController.java**

**package com.cognizant.spring\_learn.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 sayHello()");**

***LOGGER*.info("END sayHello()");**

**return "Hello World!!";**

**}**

**}**

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

**return countries.stream()**

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

**.findFirst()**

**.orElse(null);**

**}**

**}**

**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**

**https://www.springframework.org/schema/beans/spring-beans.xsd">**

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

**<constructor-arg>**

**<list>**

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

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

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

**</bean>**

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

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

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

**</bean>**

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

**<property name="code" value="FR"/>**

**<property name="name" value="France"/>**

**</bean>**

**</list>**

**</constructor-arg>**

**</bean>**

**</beans>**

**application.properties**

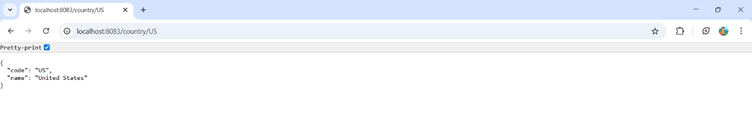
**logging.level.com.cognizant.spring\_learn=DEBUG**

**server.port=8083**

**OUTPUT**

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