**Hands on Exercise 5 - Spring Core – Demonstration of Singleton Scope and Prototype Scope**

**CODE:**

**Country.java Class: -**

package com.cognizant.spring\_learn;  
import org.slf4j.Logger;  
import org.slf4j.LoggerFactory;  
  
public class Country {  
 private static final Logger *LOGGER* = LoggerFactory.*getLogger*(Country.class);  
  
 private String code;  
 private String name;  
  
 public Country() {  
 *LOGGER*.debug("Inside Country Constructor.");  
 }  
  
 public String getCode() {  
 *LOGGER*.debug("Inside getCode()");  
 return code;  
 }  
  
 public void setCode(String code) {  
 *LOGGER*.debug("Inside setCode()");  
 this.code = code;  
 }  
  
 public String getName() {  
 *LOGGER*.debug("Inside getName()");  
 return name;  
 }  
  
 public void setName(String name) {  
 *LOGGER*.debug("Inside setName()");  
 this.name = name;  
 }  
  
 @Override  
 public String toString() {  
 return "Country [code=" + code + ", name=" + name + "]";  
 }  
}

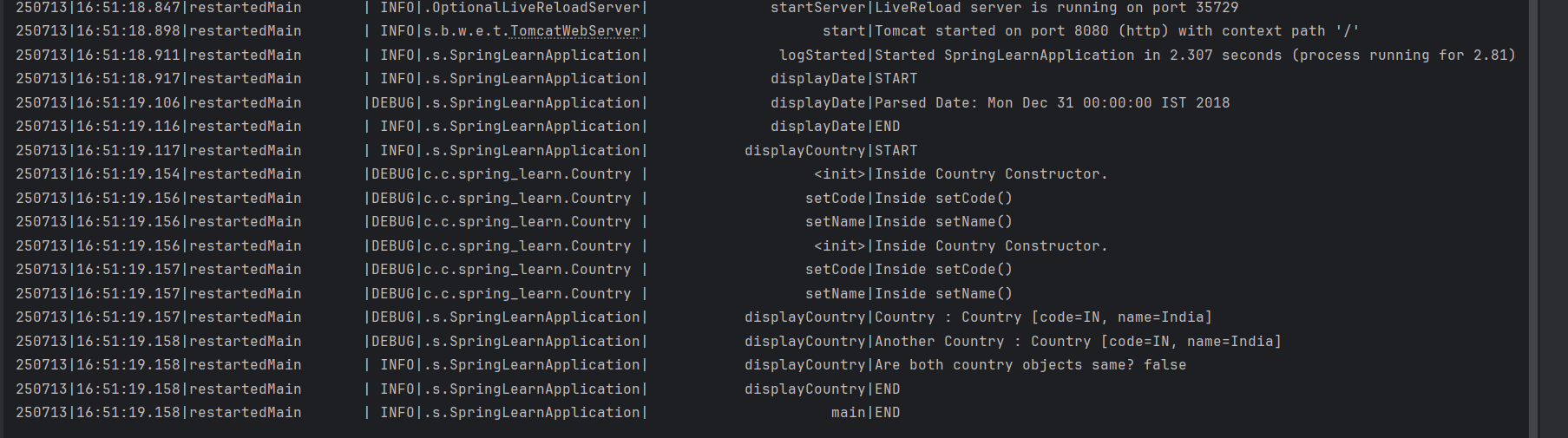
**country.xml file: -**

<?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="country" class="com.cognizant.spring\_learn.Country" scope="prototype">  
 <property name="code" value="IN" />  
 <property name="name" value="India" />  
 </bean>  
</beans>

**Main Class: -**

package com.cognizant.spring\_learn;  
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.support.ClassPathXmlApplicationContext;  
  
import java.text.ParseException;  
import java.text.SimpleDateFormat;  
import java.util.Date;  
  
@SpringBootApplication  
public class SpringLearnApplication {  
 private static final Logger *LOGGER* = LoggerFactory.*getLogger*(SpringLearnApplication.class);  
  
 public static void main(String[] args) {  
 *LOGGER*.info("START");  
 SpringApplication.*run*(SpringLearnApplication.class, args);  
 *displayDate*();  
 *displayCountry*();  
 *LOGGER*.info("END");  
 }  
  
 public static void displayDate() {  
 *LOGGER*.info("START");  
 ApplicationContext context = new ClassPathXmlApplicationContext("date-format.xml");  
 SimpleDateFormat format = context.getBean("dateFormat", SimpleDateFormat.class);  
  
 try {  
 Date date = format.parse("31/12/2018");  
 *LOGGER*.debug("Parsed Date: {}", date);  
 } catch (ParseException e) {  
 *LOGGER*.error("Error parsing date", e);  
 }  
  
 *LOGGER*.info("END");  
 }  
 public static void displayCountry() {  
 *LOGGER*.info("START");  
  
 ApplicationContext context = new ClassPathXmlApplicationContext("country.xml");  
  
 Country country = context.getBean("country", Country.class);  
 Country anotherCountry = context.getBean("country", Country.class);  
  
 *LOGGER*.debug("Country : {}", country);  
 *LOGGER*.debug("Another Country : {}", anotherCountry);  
  
 *LOGGER*.info("Are both country objects same? {}", country == anotherCountry);  
  
 *LOGGER*.info("END");  
 }  
}

**OUTPUT: -**

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