**WEEK-4**

**Spring REST using Spring Boot 3**

**Hands on 5: REST - Get country based on country code**

**1.pom.xml:**

<project xmlns="http://maven.apache.org/POM/4.0.0"

         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

         xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">

    <modelVersion>4.0.0</modelVersion>

    <groupId>com.cognizant</groupId>

    <artifactId>spring-learn</artifactId>

    <version>0.0.1-SNAPSHOT</version>

    <packaging>jar</packaging>

    <parent>

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

        <artifactId>spring-boot-starter-parent</artifactId>

        <version>2.7.14</version>

        <relativePath/>

    </parent>

    <dependencies>

        <dependency>

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

            <artifactId>spring-boot-starter-web</artifactId>

        </dependency>

        <dependency>

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

            <artifactId>spring-boot-starter</artifactId>

        </dependency>

        <dependency>

            <groupId>org.springframework</groupId>

            <artifactId>spring-context</artifactId>

        </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>

**2.Country.xml:**

<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>

                <bean class="com.cognizant.springlearn.model.Country">

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

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

                </bean>

                <bean class="com.cognizant.springlearn.model.Country">

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

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

                </bean>

                <bean class="com.cognizant.springlearn.model.Country">

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

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

                </bean>

            </list>

        </constructor-arg>

    </bean>

</beans>

**3.Country.java:**

package com.cognizant.springlearn.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;

    }

}

**4.SpringLearnApplication.java:**

package com.cognizant.springlearn;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

import org.springframework.context.annotation.ImportResource;

@SpringBootApplication

@ImportResource("classpath:country.xml")

public class SpringLearnApplication {

    public static void main(String[] args) {

        SpringApplication.run(SpringLearnApplication.class, args);

    }

}

**5.CountryService.java:**

package com.cognizant.springlearn.service;

import com.cognizant.springlearn.model.Country;

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

import org.springframework.context.ApplicationContext;

import org.springframework.stereotype.Service;

import java.util.List;

@Service

public class CountryService {

    @Autowired

    private ApplicationContext context;

    public Country getCountry(String code) {

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

        return countries.stream()

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

                .findFirst()

                .orElse(null);

    }

}

**6.CountryController.java:**

package com.cognizant.springlearn.controller;

import com.cognizant.springlearn.model.Country;

import com.cognizant.springlearn.service.CountryService;

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

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

@RestController

public class CountryController {

    @Autowired

    private CountryService countryService;

    @GetMapping("/countries/{code}")

    public Country getCountry(@PathVariable String code) {

        return countryService.getCountry(code);

    }

}

**Output:**





