**Week 4 (6397530 – Nayudu Praveen Kumar)**

**REST - Get country based on country code**

**CODE:**

**CountryController.java:**

package com.cognizant.springlearn.controller;

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

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

import com.cognizant.springlearn.model.Country;

import com.cognizant.springlearn.service.CountryService;

@RestController

public class CountryController {

@Autowired

private CountryService countryService;

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

public Country getCountry(@PathVariable String code) {

return countryService.getCountry(code);

}

}

**CountryService.java:**

package com.cognizant.springlearn.service;

import java.io.InputStream;

import java.util.List;

import java.util.Optional;

import javax.annotation.PostConstruct;

import javax.xml.bind.JAXBContext;

import javax.xml.bind.Unmarshaller;

import org.springframework.stereotype.Service;

import com.cognizant.springlearn.model.Country;

import com.cognizant.springlearn.model.CountryList;

@Service

public class CountryService {

private List<Country> countries;

@PostConstruct

public void init() throws Exception {

InputStream is = getClass().getClassLoader().getResourceAsStream("country.xml");

if (is == null) {

throw new IllegalArgumentException("country.xml not found in classpath!");

}

JAXBContext context = JAXBContext.newInstance(CountryList.class);

Unmarshaller unmarshaller = context.createUnmarshaller();

CountryList list = (CountryList) unmarshaller.unmarshal(is);

countries = list.getCountries();

}

public Country getCountry(String code) {

Optional<Country> country = countries.stream()

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

.findFirst();

return country.orElseThrow(() -> new RuntimeException("Country not found: " + code));

}

}

**Country.java:**

package com.cognizant.springlearn.model;

import javax.xml.bind.annotation.XmlElement;

import javax.xml.bind.annotation.XmlRootElement;

@XmlRootElement(name = "country")

public class Country {

private String code;

private String name;

@XmlElement

public String getCode() {

return code;

}

public void setCode(String code) {

this.code = code;

}

@XmlElement

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

}

**CountryList.java:**

package com.cognizant.springlearn.model;

import java.util.List;

import javax.xml.bind.annotation.XmlElement;

import javax.xml.bind.annotation.XmlRootElement;

@XmlRootElement(name = "country-list")

public class CountryList {

private List<Country> countries;

@XmlElement(name = "country")

public List<Country> getCountries() {

return countries;

}

public void setCountries(List<Country> countries) {

this.countries = countries;

}

}

**SpringLearnApplication.java:**

package com.cognizant.springlearn;

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.xml:**

<country-list>

<country>

<code>IN</code>

<name>India</name>

</country>

<country>

<code>US</code>

<name>United States</name>

</country>

<country>

<code>JP</code>

<name>Japan</name>

</country>

</country-list>

**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>

<name>spring-learn</name>

<properties>

<java.version>17</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>

</dependency>

<dependency>

<groupId>javax.xml.bind</groupId>

<artifactId>jaxb-api</artifactId>

<version>2.3.1</version>

</dependency>

</dependencies>

<build>

<plugins>

<plugin>

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

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

</plugin>

</plugins>

</build>

</project>

**OUTPUT:**

{

"code": "IN",

"name": "India"

}