**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");

String message = "Hello World!!";

LOGGER.info("END");

return message;

}

}

**Country.java**

package com.cognizant.spring\_learn.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;

}

}

**CountryNotFoundException.java**

package com.cognizant.spring\_learn.service.exception;

import org.springframework.http.HttpStatus;

import org.springframework.web.bind.annotation.ResponseStatus;

@ResponseStatus(value = HttpStatus.NOT\_FOUND, reason = "Country not found")

public class CountryNotFoundException extends Exception {

private static final long serialVersionUID = 1L;

}

**CountryService.java**

package com.cognizant.spring\_learn.service;

import java.util.List;

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

import org.springframework.context.ApplicationContext;

import org.springframework.stereotype.Service;

import com.cognizant.spring\_learn.model.Country;

import com.cognizant.spring\_learn.service.exception.CountryNotFoundException;

@Service

public class CountryService {

@Autowired

private ApplicationContext context;

public Country getCountry(String code) throws CountryNotFoundException {

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

return countries.stream()

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

.findFirst()

.orElseThrow(() -> new CountryNotFoundException());

}

}

**CountryController.java**

package com.cognizant.spring\_learn.controller;

import java.util.List;

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

import org.springframework.context.ApplicationContext;

import org.springframework.web.bind.annotation.GetMapping;

import org.springframework.web.bind.annotation.PathVariable;

import org.springframework.web.bind.annotation.RequestMapping;

import org.springframework.web.bind.annotation.RestController;

import com.cognizant.spring\_learn.model.Country;

import com.cognizant.spring\_learn.service.CountryService;

import com.cognizant.spring\_learn.service.exception.CountryNotFoundException;

@RestController

public class CountryController {

@Autowired

private ApplicationContext context;

@Autowired

private CountryService countryService;

@RequestMapping("/country")

public Country getCountryIndia() {

return (Country) context.getBean("in");

}

@GetMapping("/countries")

public List<Country> getAllCountries() {

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

}

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

public Country getCountry(@PathVariable String code) throws CountryNotFoundException {

return countryService.getCountry(code);

}

}

**country.xml**

<?xml version="1.0" encoding="UTF-8"?>

<beans xmlns="http://www.springframework.org/schema/beans"

xmlns:context="http://www.springframework.org/schema/context"

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

http://www.springframework.org/schema/context

http://www.springframework.org/schema/context/spring-context.xsd">

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

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

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

</bean>

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

<constructor-arg>

<list>

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

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

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

</bean>

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

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

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

</bean>

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

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

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

</bean>

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

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

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

</bean>

</list>

</constructor-arg>

</bean>

</beans>

**SpringLearnApplication.java**

package com.cognizant.spring\_learn;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

@SpringBootApplication

public class SpringLearnApplication {

public static void main(String[] args) {

SpringApplication.run(SpringLearnApplication.class, args);

}

}

**SpringLearnApplicationTests.java**

package com.cognizant.spring\_learn;

import static org.junit.jupiter.api.Assertions.assertNotNull;

import static org.springframework.test.web.servlet.request.MockMvcRequestBuilders.get;

import static org.springframework.test.web.servlet.result.MockMvcResultMatchers.\*;

import com.cognizant.spring\_learn.controller.CountryController;

import org.junit.jupiter.api.Test;

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

import org.springframework.boot.test.autoconfigure.web.servlet.AutoConfigureMockMvc;

import org.springframework.boot.test.context.SpringBootTest;

import org.springframework.test.web.servlet.MockMvc;

import org.springframework.test.web.servlet.ResultActions;

@SpringBootTest

@AutoConfigureMockMvc

public class SpringLearnApplicationTests {

@Autowired

private CountryController countryController;

@Autowired

private MockMvc mvc;

@Test

public void contextLoads() {

assertNotNull(countryController);

}

@Test

public void testGetCountry() throws Exception {

ResultActions actions = mvc.perform(get("/country"));

actions.andExpect(status().isOk());

actions.andExpect(jsonPath("$.code").value("IN"));

actions.andExpect(jsonPath("$.name").value("India"));

}

@Test

public void testGetCountryException() throws Exception {

mvc.perform(get("/countries/zz"))

.andExpect(status().isNotFound())

.andExpect(status().reason("Country not found"));

}

}