Spring Rest Hands-on

**Hello World RESTful Web Service**

**REST - Country Web Service**   
**REST - Get country based on country code**

Solution:

**1. Setup Spring Boot Project**

Use Spring Initializr:

* Go to: <https://start.spring.io>
* Project: Maven
* Language: Java
* Spring Boot: 2.7+ (or latest)
* Dependencies:
  + Spring Web
  + Spring Boot DevTools

2. Restful Web service- Hello World

* Create HelloController.java

package com.example.demo.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;

}

}

3. Country Web Service – Single Country

Country.java

package com.example.demo.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;

}

*@Override*

public String toString() {

return "Country{" +

"code='" + code + '\'' +

", name='" + name + '\'' +

'}';

}

}

Create CountryController.java

package com.example.demo.controller;

import com.example.demo.model.Country;

import com.example.demo.service.CountryService;

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

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;

@RestController

public class CountryController {

@Autowired

private CountryService countryService;

@RequestMapping("/country")

public Country getCountryIndia() {

return countryService.getCountryIndia();

}

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

public Country getCountry(@PathVariable String code) {

return countryService.getCountry(code);

}

}

REST - Get Country by Country Code

Create CountryService.java

package com.example.demo.service;

import com.example.demo.model.Country;

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

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

import org.springframework.stereotype.Service;

import java.util.List;

@Service

public class CountryService {

private ApplicationContext context;

public CountryService() {

this.context = new ClassPathXmlApplicationContext("country.xml");

}

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);

}

public Country getCountryIndia() {

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

}

public List<Country> getAllCountries() {

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

}

}

DemoApplication.java

package com.example.demo;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication

public class DemoApplication {

public static void main(String[] args) {

SpringApplication.run(DemoApplication.class, args);

}

}

Output:

Run DemoApplication.java as Java Application

Go to browser, type the following:

http://localhost:8083/hello

A screenshot of a computer

AI-generated content may be incorrect.

http://localhost:8083/country

A screenshot of a computer

AI-generated content may be incorrect.

http://localhost:8083/countries/us

A screenshot of a computer

AI-generated content may be incorrect.