**HANDS\_ON - Hello World RESTful Web Service**   
**SpringApplication.java-**

**package** com.cognizant.spring\_learn;

**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);

}

}

**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 sayHello()");

String response = "Hello World!!";

***LOGGER***.info("END sayHello()");

**return** response;

}

}

OUTPUT:

A screenshot of a computer

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**REST - Country Web Service**   
**SpringApplication.java-**

**package** com.cognizant.spring\_learn;

**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);

}

}

**CountryController.java-**

**package** com.cognizant.spring\_learn.controller;

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

**import** org.slf4j.Logger;

**import** org.slf4j.LoggerFactory;

**import** org.springframework.context.ApplicationContext;

**import** org.springframework.context.support.ClassPathXmlApplicationContext;

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

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

@RestController

**public** **class** CountryController {

**private** **static** **final** Logger ***LOGGER*** = LoggerFactory.*getLogger*(CountryController.**class**);

@RequestMapping("/country")

**public** Country getCountryIndia() {

***LOGGER***.info("START getCountryIndia()");

ApplicationContext context = **new** ClassPathXmlApplicationContext("country.xml");

Country country = (Country) context.getBean("in", Country.**class**);

***LOGGER***.info("END getCountryIndia()");

**return** country;

}

}

OUTPUT:

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**REST - Get all countries**

**Country.xml:**

<?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="in" class="com.cognizant.spring\_learn.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.Country">

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

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

</bean>

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

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

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

</bean>

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

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

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

</bean>

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

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

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

</bean>

</list>

</constructor-arg>

</bean>

</beans>

**CountryController.java:**

package com.cognizant.spring\_learn.controller;

import com.cognizant.spring\_learn.Country;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

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

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

import java.util.List;

@RestController

public class CountryController {

@GetMapping("/country")

public Country getCountryIndia() {

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

Country country = (Country) context.getBean("in");

return country;

}

@GetMapping("/countries")

public List<Country> getAllCountries() {

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

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

return countries;

}

}

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A screenshot of a computer program

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**MockMVC - Test get country service** 

**SpringLearnApplicationTests.java**

package com.cognizant.springlearn;

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.status;

import static org.springframework.test.web.servlet.result.MockMvcResultMatchers.jsonPath;

import com.cognizant.springlearn.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/in"));

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

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

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

}

}  
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