**2.Spring-Rest-Handson**

**Hello World RESTful Web Service**

**HelloController.java**

*package com.cognizant.springlearn.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 message = "Hello World!!";  
 LOGGER.info("End: sayHello()");  
 return message;  
 }  
}*

**Testing in Chrome Browser**

*1. Open Chrome and go to: http://localhost:8083/hello  
2. Press F12 to open Developer Tools.  
3. Go to the Network tab and refresh the page.  
4. Click on the /hello request to view headers.  
5. Observe the Request and Response Headers such as:  
 - Content-Type: text/plain  
 - Status Code: 200 OK  
 - Date, Server, etc.*

**Testing in Postman**

*1. Open Postman and make a GET request to: http://localhost:8083/hello  
2. Click the Headers tab in the response section.  
3. View headers such as:  
 - Content-Type: text/plain;charset=UTF-8  
 - Content-Length  
 - Server, Date, etc.*

**REST - Country Web Service**

**Country.java**

*package com.cognizant.spring\_learn.model;  
  
public class Country {  
 private String code;  
 private String 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;  
 }  
}*

**CountryController.java**

*package com.cognizant.spring\_learn.controller;  
  
import com.cognizant.spring\_learn.model.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");  
 LOGGER.info("END getCountryIndia()");  
 return country;  
 }  
}*

**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="in" class="com.cognizant.spring\_learn.model.Country">  
 <property name="code" value="IN"/>  
 <property name="name" value="India"/>  
 </bean>  
  
</beans>*

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

**CountryService.java**

*package com.cognizant.spring\_learn.service;  
  
import com.cognizant.spring\_learn.model.Country;  
import org.springframework.context.ApplicationContext;  
import org.springframework.context.support.ClassPathXmlApplicationContext;  
import org.springframework.stereotype.Service;  
import java.util.List;  
@Service  
public class CountryService {  
 public Country getCountry(String code) {  
 ApplicationContext context = new ClassPathXmlApplicationContext("country.xml");  
 List<Country> countries = (List<Country>) context.getBean("countryList");  
 return countries.stream()  
 .filter(c -> c.getCode().equalsIgnoreCase(code))  
 .findFirst()  
 .orElse(null);  
 }*

*}*

**CountryController.java**

*package com.cognizant.spring\_learn.controller;  
  
import com.cognizant.spring\_learn.model.Country;  
import com.cognizant.spring\_learn.service.CountryService;  
import org.slf4j.Logger;  
import org.slf4j.LoggerFactory;  
import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.web.bind.annotation.\*;  
  
@RestController  
public class CountryController {  
  
 private static final Logger LOGGER = LoggerFactory.getLogger(CountryController.class);  
  
 @Autowired  
 private CountryService countryService;  
  
 @GetMapping("/countries/{code}")  
 public Country getCountry(@PathVariable String code) {  
 LOGGER.info("START getCountry()");  
 Country country = countryService.getCountry(code);  
 LOGGER.info("END getCountry()");  
 return country;  
 }  
}*

**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="in" class="com.cognizant.spring\_learn.model.Country">  
 <property name="code" value="IN"/>  
 <property name="name" value="India"/>  
 </bean>  
  
 <bean id="us" class="com.cognizant.spring\_learn.model.Country">  
 <property name="code" value="US"/>  
 <property name="name" value="United States"/>  
 </bean>  
  
 <bean id="countryList" class="java.util.ArrayList">  
 <constructor-arg>  
 <list>  
 <ref bean="in"/>  
 <ref bean="us"/>  
 </list>  
 </constructor-arg>  
 </bean>  
  
</beans>*