Week 4 :

1. Create a Spring Web Project using Maven

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) {

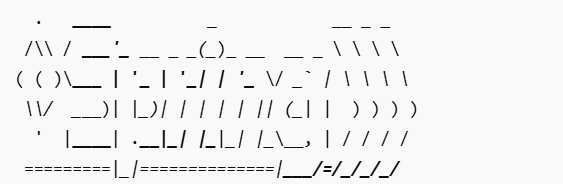
SpringApplication.run(SpringLearnApplication.class, args);

System.out.println("Hello, Spring Boot is running!");

}

}

Output:



Spring Core – Load Country from Spring Configuration 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="dateFormat" class="java.text.SimpleDateFormat">

<constructor-arg value="dd/MM/yyyy" />

</bean>

</beans>

import java.text.ParseException;

import java.text.SimpleDateFormat;

import java.util.Date;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

@SpringBootApplication

public class SpringLearnApplication {

public static void main(String[] args) throws ParseException {

SpringApplication.run(SpringLearnApplication.class, args);

System.out.println("Hello, Spring Boot is running!");

displayDate();

}

public static void displayDate() throws ParseException {

ApplicationContext context = new ClassPathXmlApplicationContext("date-format.xml");

SimpleDateFormat format = context.getBean("dateFormat", SimpleDateFormat.class);

Date date = format.parse("31/12/2018");

System.out.println(date);

}

}

Output:

Hello, Spring Boot is running!

Mon Dec 31 00:00:00 IST 2018

Hello World RESTful Web Service :

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;

public class HelloController {

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

("/hello")

public String sayHello() {

LOGGER.info("START");

String message = "Hello World!!";

LOGGER.info("END");

return message;

}

}

package com.cognizant.springlearn;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

public class SpringLearnApplication {

public static void main(String[] args) {

SpringApplication.run(SpringLearnApplication.class, args);

}

}

Output:

Hello World!!

START

END

REST - Country Web Service :

package com.cognizant.springlearn;

public class Country {

private String code;

private String name;

public Country() {

}

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;

}

public String toString() {

return "Country [code=" + code + ", name=" + name + "]";

}

}

<?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="country" class="com.cognizant.springlearn.Country">

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

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

</bean>

</beans>

package com.cognizant.springlearn.controller;

import com.cognizant.springlearn.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;

public class CountryController {

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

("/country")

public Country getCountryIndia() {

LOGGER.info("START");

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

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

LOGGER.info("END");

return country;

}

}

Output:

{

"code": "IN",

"name": "India"

}

sql

Copy

Edit

INFO ... START

INFO ... END

REST - Get country based on country code

package com.cognizant.springlearn.controller;

import com.cognizant.springlearn.Country;

import com.cognizant.springlearn.service.CountryService;

import com.cognizant.springlearn.service.exception.CountryNotFoundException;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

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

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

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 {

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

@Autowired

CountryService countryService;

@RequestMapping("/country")

public Country getCountryIndia() {

LOGGER.info("START");

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

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

LOGGER.info("END");

return country;

}

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

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

LOGGER.info("START");

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

countryService = context.getBean("countryService", CountryService.class);

Country country = countryService.getCountry(code);

LOGGER.info("END");

return country;

}

}

package com.cognizant.springlearn.service;

import com.cognizant.springlearn.Country;

import com.cognizant.springlearn.service.exception.CountryNotFoundException;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

import java.util.List;

public class CountryService {

public Country getCountry(String code) throws CountryNotFoundException {

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

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

for (Country country : countryList) {

if (country.getCode().equalsIgnoreCase(code)) {

return country;

}

}

throw new CountryNotFoundException();

}

}

package com.cognizant.springlearn.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;

}

<bean id="in" class="com.cognizant.springlearn.Country">

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

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

</bean>

<bean id="us" class="com.cognizant.springlearn.Country">

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

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

</bean>

<bean id="jp" class="com.cognizant.springlearn.Country">

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

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

</bean>

<bean id="de" class="com.cognizant.springlearn.Country">

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

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

</bean>

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

<constructor-arg>

<list>

<ref bean="in"/>

<ref bean="us"/>

<ref bean="jp"/>

<ref bean="de"/>

</list>

</constructor-arg>

</bean>

<bean id="countryService" class="com.cognizant.springlearn.service.CountryService"/>

Output:

{

"timestamp": "...",

"status": 404,

"error": "Not Found",

"message": "Country not found",

"path": "/countries/XX"

}