Spring Rest

**1: Create Spring Web Project**

---SpringLearnApplication.java

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);

}

}

**2: Load SimpleDateFormat from XML**

---date-format.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>

---SpringLearnApplication.java

public void displayDate() {

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

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

try {

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

System.out.println(date);

} catch (ParseException e) {

e.printStackTrace();

}

}

**3: Incorporate Logging**

---application.properties

logging.level.org.springframework=info

logging.level.com.cognizant.springlearn=debug

logging.pattern.console=%d{yyMMdd}|%d{HH:mm:ss.SSS}|%-20.20thread|%5p|%-25.25logger{25}|%25M|%m%n

---updated display method

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

public void displayDate() {

LOGGER.info("START");

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

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

try {

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

LOGGER.debug("Formatted Date: {}", date);

} catch (ParseException e) {

LOGGER.error("Error parsing date", e);

}

LOGGER.info("END");

}

**4: Load Country from XML**

**---**Country.java

package com.cognizant.springlearn;

public class Country {

private String code;

private String name;

public Country() {

LOGGER.debug("Inside Country Constructor.");

}

public String getCode() {

LOGGER.debug("Getting Country Code");

return code;

}

public void setCode(String code) {

LOGGER.debug("Setting Country Code");

this.code = code;

}

public String getName() {

LOGGER.debug("Getting Country Name");

return name;

}

public void setName(String name) {

LOGGER.debug("Setting Country Name");

this.name = name;

}

@Override

public String toString() {

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

}

}

---country.xml

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

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

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

</bean>

---displayCountry()

public void displayCountry() {

LOGGER.info("START");

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

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

LOGGER.debug("Country : {}", country.toString());

LOGGER.info("END");

}

**5: Singleton vs Prototype Scope**

---Singleton scope

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

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

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

</bean>

---Prototype scope

<bean id="country" class="com.cognizant.springlearn.Country" scope="prototype">

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

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

</bean>

---Testing scope

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

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

LOGGER.debug("Same instance? {}", (country == anotherCountry));

**6: Load List of Countries**

---country.xml

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

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

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

</bean>

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

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

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

</bean>

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

<constructor-arg>

<list>

<ref bean="in"/>

<ref bean="us"/>

<ref bean="de"/>

<ref bean="jp"/>

</list>

</constructor-arg>

</bean>

---displayCountries()

public void displayCountries() {

LOGGER.info("START");

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

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

LOGGER.debug("Countries: {}", countries);

LOGGER.info("END");

}