

## Hands on 2

### Spring Core – Load SimpleDateFormat from Spring Configuration XML

**SimpleDateFormat** with the pattern 'dd/MM/yyyy' is created in multiple places of an application. To avoid creation of SimpleDateFormat in multiple places, define a bean in Spring XML Configuration file and retrieve the date.

Follow steps below to implement:

- Create spring configuration file **date-format.xml** in **src/main/resources** folder of 'spring-learn' project
- Open <https://docs.spring.io/spring-framework/docs/current/spring-framework-reference/core.html#beans-factory-metadata>
- Copy the XML defined in the section of previous step URL and paste it into **date-format.xml**
- Define bean tag in the XML with for date format. Refer code below.

```
<?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>
```

- Create new method **displayDate()** in **SpringLearnApplication.java**
- In displayDate() method create the **ApplicationContext**. Refer code below:

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

- Get the **dateFormat** using **getBean()** method. Refer code below.

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

- Using the format variable try to parse string '31/12/2018' to **Date** class and display the result using **System.out.println**.
- Run the application as 'Java Application' and check the result in console log output.

## Troubleshooting Tips

If the tomcat port has a conflict and the server is not starting include the below property in **application.properties** file in **src/main/resources** folder.

## 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

```
package com.cognizant.spring_learn;

import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Date;
```

```
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;

public class SpringLearnApplication {

    public static void main(String[] args) throws ParseException {
        displayDate(); // Call the method here
    }

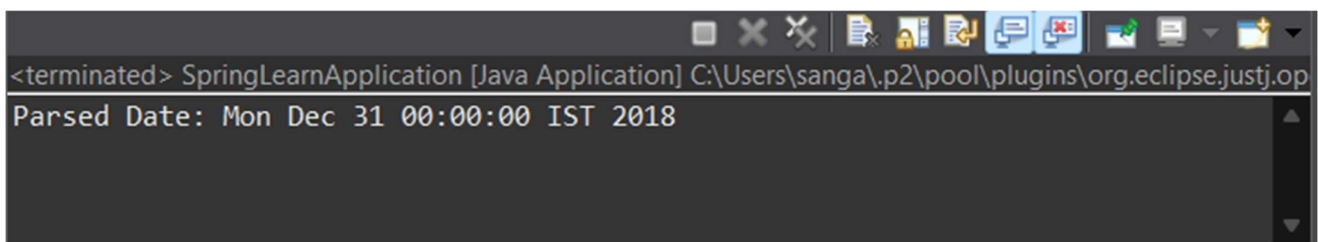
    public static void displayDate() throws ParseException {
        // Load Spring XML config
        ApplicationContext context = new ClassPathXmlApplicationContext("date-format.xml");

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

        // Parse the date
        String dateString = "31/12/2018";
        Date parsedDate = format.parse(dateString);

        // Print the result
        System.out.println("Parsed Date: " + parsedDate);
    }
}
```

## Result:



```
<terminated> SpringLearnApplication [Java Application] C:\Users\sanga\.p2\pool\plugins\org.eclipse.justj.op
Parsed Date: Mon Dec 31 00:00:00 IST 2018
```