

EXPLORING JAVA SPRING XML CONFIGURATION

Get the example of **content schema** from this link:

<https://docs.spring.io/spring-framework/docs/4.2.x/spring-framework-reference/html/xsd-configuration.html>

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:context="http://www.springframework.org/schema/context"
  xsi:schemaLocation="
    http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans.xsd
    http://www.springframework.org/schema/context
    http://www.springframework.org/schema/context/spring-context.xsd">

</beans>
```

We can define the beans here also. And we can use this XML file to create spring context using the instance of the class ClassPathXmlApplicationContext.

Let's create the XML file and define some bean,

We should create the XML file in **src/main/resources**.

contextConfiguration.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"
  xmlns:context="http://www.springframework.org/schema/context"
  xsi:schemaLocation="
    http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans.xsd
    http://www.springframework.org/schema/context
    http://www.springframework.org/schema/context/spring-context.xsd">

  <!-- bean definitions here -->

  <bean id = "name" class = "java.lang.String">
    <constructor-arg value = "Naveen" />
  </bean>

  <bean id = "age" class = "java.lang.Integer">
    <constructor-arg value = "21" />
  </bean>

</beans>
```

id → Bean name.

class → for return type.

value → the value the bean going to return.

SpringXML_ConfigApp.java

```
package com.naveen.learnspringframework.SpringXMLConfigExample;

import java.util.Arrays;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class SpringXML_ConfigApp {

    public static void main(String[] args) {

        try(var context =
            new ClassPathXmlApplicationContext
                ("contextConfiguration.xml")){

            Arrays.stream(context.getBeanDefinitionNames())
                .forEach(System.out::println);

            System.out.println(context.getBean("name"));

        }

    }

}
```

OUTPUT:

```
19:01:25.924 [main] DEBUG org.springframework.context.support.ClassPathXmlApplicationContext -
19:01:26.275 [main] DEBUG org.springframework.beans.factory.xml.XmlBeanDefinitionReader - Load
19:01:26.328 [main] DEBUG org.springframework.beans.factory.support.DefaultListableBeanFactory
19:01:26.393 [main] DEBUG org.springframework.beans.factory.support.DefaultListableBeanFactory
name
age
Naveen
19:01:26.511 [main] DEBUG org.springframework.context.support.ClassPathXmlApplicationContext -
```

We can scan the component in the other packages and use it in our XML configuration.

contextConfiguration.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"
       xmlns:context="http://www.springframework.org/schema/context"
       xsi:schemaLocation="
           http://www.springframework.org/schema/beans
           http://www.springframework.org/schema/beans/spring-beans.xsd
           http://www.springframework.org/schema/context
           http://www.springframework.org/schema/context/spring-context.xsd">
    <!-- bean definitions here -->

    <bean id = "name" class = "java.lang.String">
        <constructor-arg value = "Naveen" />
    </bean>

    <bean id = "age" class = "java.lang.Integer">
        <constructor-arg value = "21" />
    </bean>

    <context:component-scan
        base-
package="com.naveen.learnspringframework.LazyAndEagerInitialization"/>

</beans>
```

OUTPUT:

```
name
age
employee
lazyInitializationApp
manager
org.springframework.context.annotation.internalConfigurat
org.springframework.context.annotation.internalAutowiredP
org.springframework.context.annotation.internalCommonAnnc
org.springframework.context.event.internalEventListenerPr
org.springframework.context.event.internalEventListenerFa
Naveen
19:09:05.976 [main] DEBUG org.springframework.context.sup
```

contextConfiguration.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"
       xmlns:context="http://www.springframework.org/schema/context"
       xsi:schemaLocation="
           http://www.springframework.org/schema/beans
           http://www.springframework.org/schema/beans/spring-beans.xsd
           http://www.springframework.org/schema/context
           http://www.springframework.org/schema/context/spring-context.xsd"> <!-- bean
definitions here -->

    <bean id = "name" class = "java.lang.String">
        <constructor-arg value = "Naveen" />
    </bean>

    <bean id = "age" class = "java.lang.Integer">
        <constructor-arg value = "21" />
    </bean>

    <context:component-scan
        base-
package="com.naveen.learnspringframework.LazyAndEagerInitialization"/>

    <bean id = "game" class =
"com.naveen.learnspringframework.game.PacmanGame"/>

    <bean
        id = "gameRunner"
        class = "com.naveen.learnspringframework.game.GameRunner">
        <constructor-arg ref = "game"/>
    </bean>
</beans>
```

SpringXML_ConfigApp.java

```
package com.naveen.learnspringframework.SpringXMLConfigExample;

import java.util.Arrays;

import org.springframework.context.support.ClassPathXmlApplicationContext;

import com.naveen.learnspringframework.game.GameRunner;

public class SpringXML_ConfigApp {

    public static void main(String[] args) {

        try(var context =
            new ClassPathXmlApplicationContext
                ("contextConfiguration.xml")){
```

```

        Arrays.stream(context.getBeanDefinitionNames())
            .forEach(System.out::println);

        System.out.println(context.getBean("name"));

        context.getBean(GameRunner.class).run();
    }
}

```

OUTPUT:

```

name
age
employee
lazyInitializationApp
manager
org.springframework.context.annotation.internalConfigurationAnnotationProces
org.springframework.context.annotation.internalAutowiredAnnotationProcessor
org.springframework.context.annotation.internalCommonAnnotationProcessor
org.springframework.context.event.internalEventListenerProcessor
org.springframework.context.event.internalEventListenerFactory
game
gameRunner
Naveen
Running game: com.naveen.learnspringframework.game.PacmanGame@5a1de7fb
up
down
left
right
19:24:00.566 [main] DEBUG org.springframework.context.support.ClassPathXmlAp

```