

Exercise 4: Creating and Configuring a Maven Project

Code:

pom.xml:

```
<?xml version="1.0" encoding="UTF-8"?>

<project xmlns="http://maven.apache.org/POM/4.0.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
        https://maven.apache.org/xsd/maven-4.0.0.xsd">

    <modelVersion>4.0.0</modelVersion>

    <groupId>com.library</groupId>
    <artifactId>LibraryManagement</artifactId>
    <version>1.0-SNAPSHOT</version>

    <properties>
        <java.version>1.8</java.version>
        <maven.compiler.source>${java.version}</maven.compiler.source>
        <maven.compiler.target>${java.version}</maven.compiler.target>
    </properties>

    <dependencies>
        <dependency>
            <groupId>org.springframework</groupId>
            <artifactId>spring-context</artifactId>
            <version>5.3.30</version>
        </dependency>

        <!-- Spring AOP -->
        <dependency>
            <groupId>org.springframework</groupId>
            <artifactId>spring-aop</artifactId>
            <version>5.3.30</version>
        </dependency>
```

```
<dependency>
  <groupId>org.springframework</groupId>
  <artifactId>spring-webmvc</artifactId>
  <version>5.3.30</version>
</dependency>
```

```
<dependency>
  <groupId>javax.servlet</groupId>
  <artifactId>javax.servlet-api</artifactId>
  <version>4.0.1</version>
  <scope>provided</scope>
</dependency>
```

```
<dependency>
  <groupId>junit</groupId>
  <artifactId>junit</artifactId>
  <version>4.13.2</version>
  <scope>test</scope>
</dependency>
</dependencies>
```

```
<build>
  <plugins>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-compiler-plugin</artifactId>
      <version>3.8.1</version>
      <configuration>
        <source>${java.version}</source>
        <target>${java.version}</target>
      </configuration>
    </plugin>
  </plugins>
</build>
```

</project>

applicationContext.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">
</beans>
```

LibraryApp.java:

package com.libraries;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class LibraryApp {

public static void main(String[] args) {

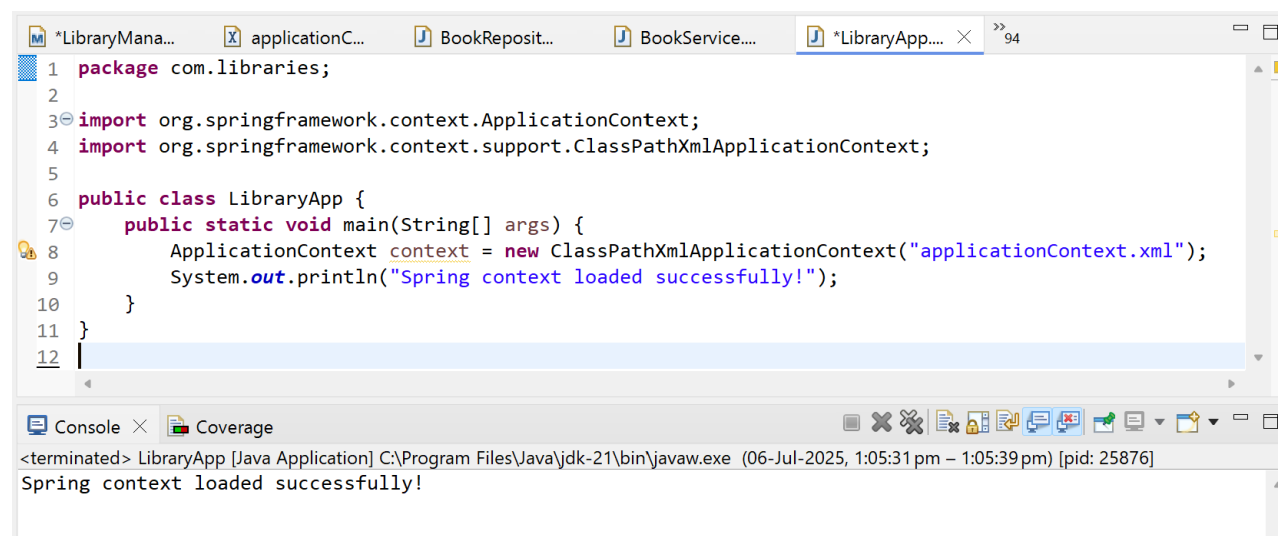
 ApplicationContext context = **new** ClassPathXmlApplicationContext("applicationContext.xml");

 System.**out**.println("Spring context loaded successfully!");

 }

}

Output:



The screenshot shows an IDE window with several tabs: *LibraryMana..., applicationC..., BookReposit..., BookService..., and *LibraryApp.... The *LibraryApp... tab is active, displaying the following Java code:

```
1 package com.libraries;
2
3 import org.springframework.context.ApplicationContext;
4 import org.springframework.context.support.ClassPathXmlApplicationContext;
5
6 public class LibraryApp {
7     public static void main(String[] args) {
8         ApplicationContext context = new ClassPathXmlApplicationContext("applicationContext.xml");
9         System.out.println("Spring context loaded successfully!");
10    }
11 }
12
```

Below the code editor, the Console window is open, showing the output of the program:

```
<terminated> LibraryApp [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (06-Jul-2025, 1:05:31 pm - 1:05:39 pm) [pid: 25876]
Spring context loaded successfully!
```