

Spring core and Maven Exercises

Exercise 1: Configuring a Basic Spring Application

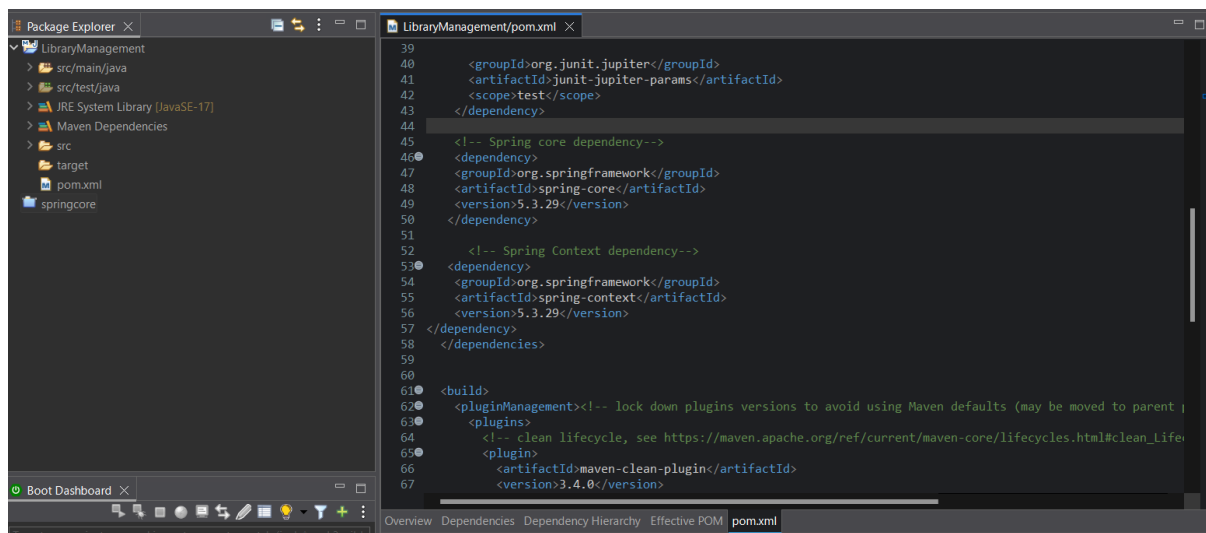
Scenario:

Your company is developing a web application for managing a library. You need to use the Spring Framework to handle the backend operations.

Steps:

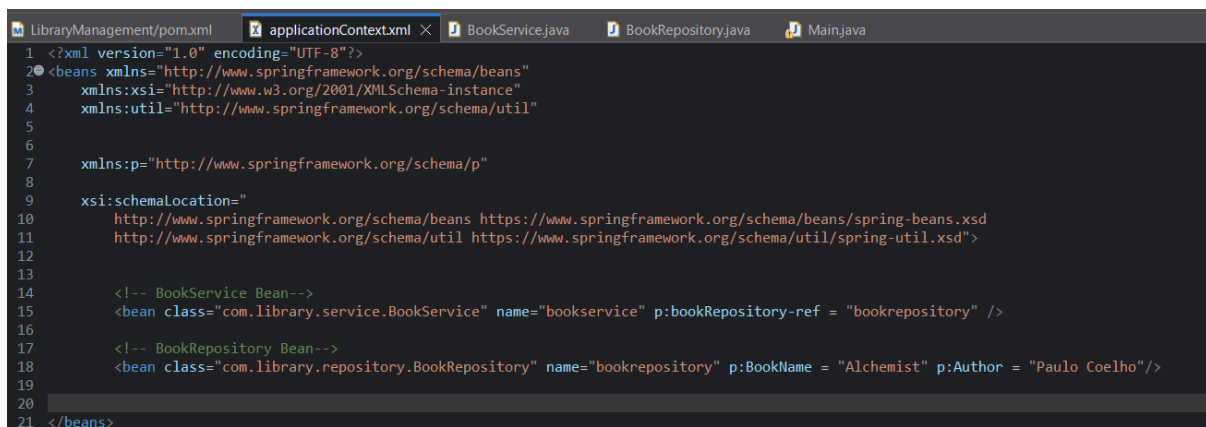
1. Set Up a Spring Project:

- Create a Maven project named **LibraryManagement**.
- Add Spring Core dependencies in the **pom.xml** file.



2. Configure the Application Context:

- Create an XML configuration file named **applicationContext.xml** in the **src/main/resources** directory.
- Define beans for **BookService** and **BookRepository** in the XML file.



3. Define Service and Repository Classes:

- Create a package **com.library.service** and add a class **BookService**.
- Create a package **com.library.repository** and add a class **BookRepository**.

```
BookService.java ×
1 package com.library.service;
2
3 import com.library.repository.BookRepository;
4
5 public class BookService {
6
7     private BookRepository bookRepository;
8
9     public BookRepository getBookRepository() {
10         return bookRepository;
11     }
12
13     public void setBookRepository(BookRepository bookRepository) {
14         this.bookRepository = bookRepository;
15     }
16
17     @Override
18     public String toString() {
19         return "----BookService----\n----BookRepository----\n" + bookRepository;
20     }
21
22
23
24
25 }
26
```

```
BookRepository.java ×
1 package com.library.repository;
2
3 public class BookRepository {
4     private String BookName;
5     private String Author;
6
7
8     public String getBookName() {
9         return BookName;
10    }
11
12
13    public void setBookName(String bookName) {
14        BookName = bookName;
15    }
16
17
18    public String getAuthor() {
19        return Author;
20    }
21
22
23    public void setAuthor(String author) {
24        Author = author;
25    }
26
27    @Override
28    public String toString() {
29        return "\n Book: " + this.BookName + "\nAuthor: " + this.Author;
30    }
31
32
33 }
34
```

4. Run the Application:

- Create a main class to load the Spring context and test the configuration.

```
Problems Javadoc Declaration Console ×
<terminated> Main [Java Application] D:\Program Files\Java\jdk-24\bin\javaw.exe (02-Jul-2025, 1:04:37 am -
----BookService----
----BookRepository----

 Book: Alchemist
Author: Paulo Coelho
```