

Handson session

Configuring a Basic Spring Application

Definition

The Spring Framework

The Spring Framework is a powerful, lightweight framework used for developing Java-based enterprise applications. It provides comprehensive infrastructure support for developing Java applications with features like Dependency Injection (DI) and Inversion of Control (IoC).

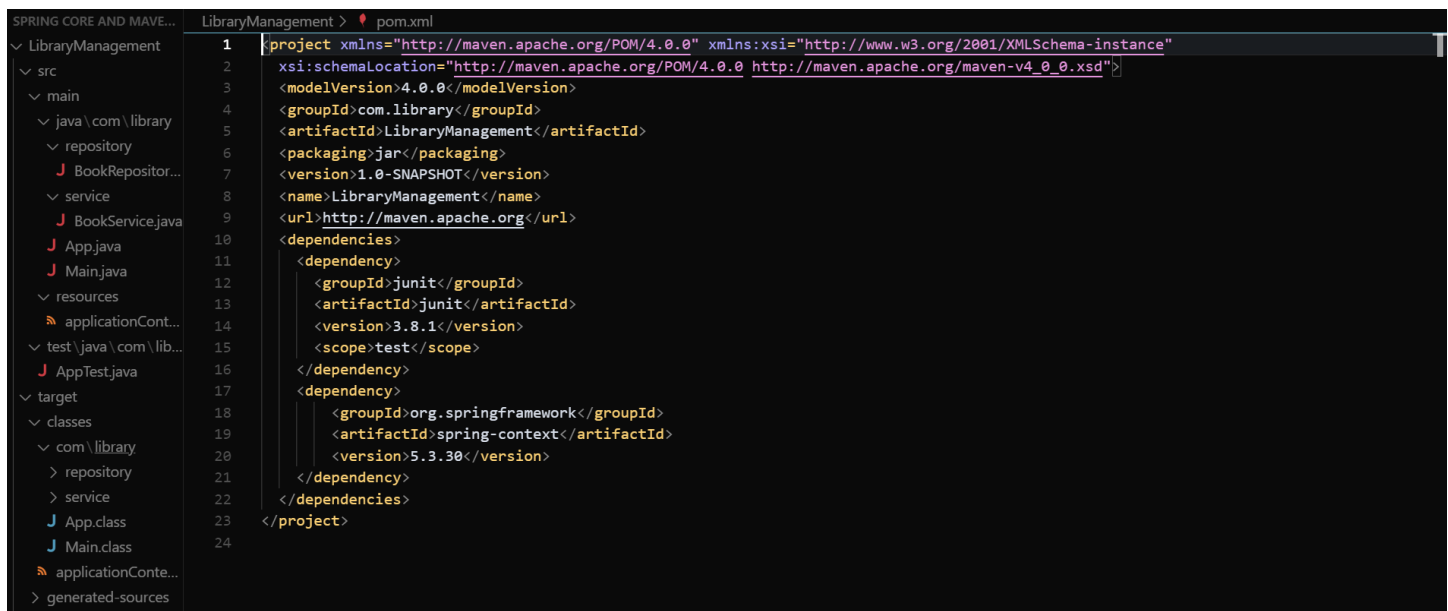
Maven

Maven is a build automation and dependency management tool used in Java projects. A Maven project uses a pom.xml file to declare dependencies, build configuration, and project metadata.

Purpose of the Exercise

This exercise demonstrates how to configure a basic Spring application using XML-based configuration, defining service and repository beans, and initializing the application context to manage dependencies.

Output Screenshots



```
SPRING CORE AND MAVEN... LibraryManagement > pom.xml
1 <?xml version="1.0" encoding="UTF-8"?>
2 <project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
3       xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
4   <modelVersion>4.0.0</modelVersion>
5   <groupId>com.library</groupId>
6   <artifactId>LibraryManagement</artifactId>
7   <packaging>jar</packaging>
8   <version>1.0-SNAPSHOT</version>
9   <name>LibraryManagement</name>
10  <url>http://maven.apache.org</url>
11  <dependencies>
12    <dependency>
13      <groupId>junit</groupId>
14      <artifactId>junit</artifactId>
15      <version>3.8.1</version>
16      <scope>test</scope>
17    </dependency>
18    <dependency>
19      <groupId>org.springframework</groupId>
20      <artifactId>spring-context</artifactId>
21      <version>5.3.30</version>
22    </dependency>
23  </dependencies>
24 </project>
```

```
C:\Users\DELL\OneDrive\Desktop\Spring core and maven 1\LibraryManagement> mvn exec:java -Dexec.mainClass=com.library.Main
WARNING: A terminally deprecated method in sun.misc.Unsafe has been called
WARNING: sun.misc.Unsafe::staticFieldBase has been called by com.google.inject.internal.aop.HiddenClassDefiner (file:/C:/Users/DELL/D
ownloads/apache-maven-3.9.10-bin/apache-maven-3.9.10/lib/guice-5.1.0-classes.jar)
WARNING: Please consider reporting this to the maintainers of class com.google.inject.internal.aop.HiddenClassDefiner
WARNING: sun.misc.Unsafe::staticFieldBase will be removed in a future release
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.library:LibraryManagement >-----
[INFO] Building LibraryManagement 1.0-SNAPSHOT
[INFO] from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- exec:3.5.1:java (default-cli) @ LibraryManagement ---
BookService bean loaded: true
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 1.892 s
[INFO] Finished at: 2025-07-06T13:23:14+05:30
[INFO]
C:\Users\DELL\OneDrive\Desktop\Spring core and maven 1\LibraryManagement>
```