

WEEK 3 HANDS ON

Exercise 1: Configuring a Basic Spring Application

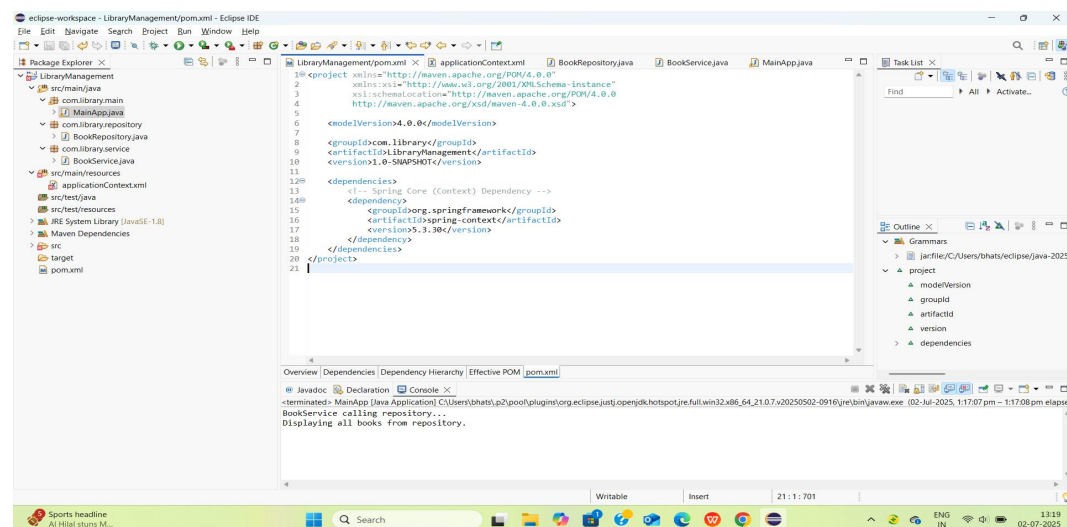
Scenario:

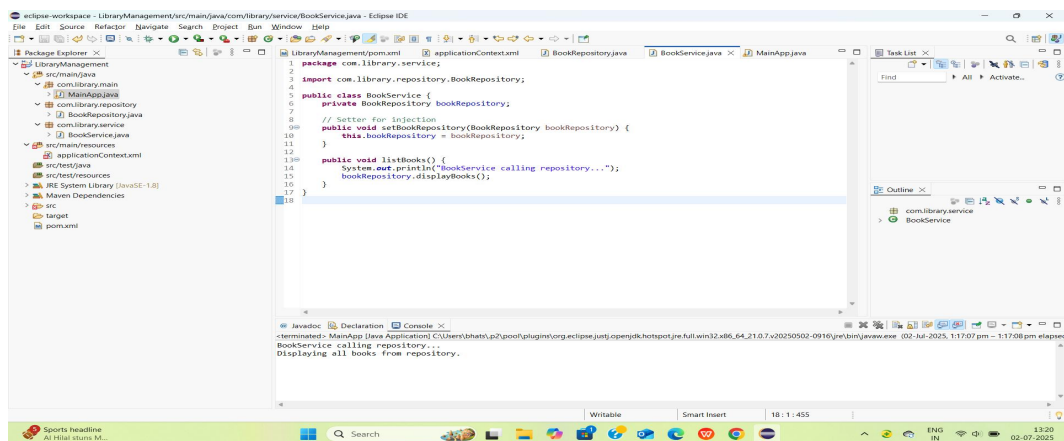
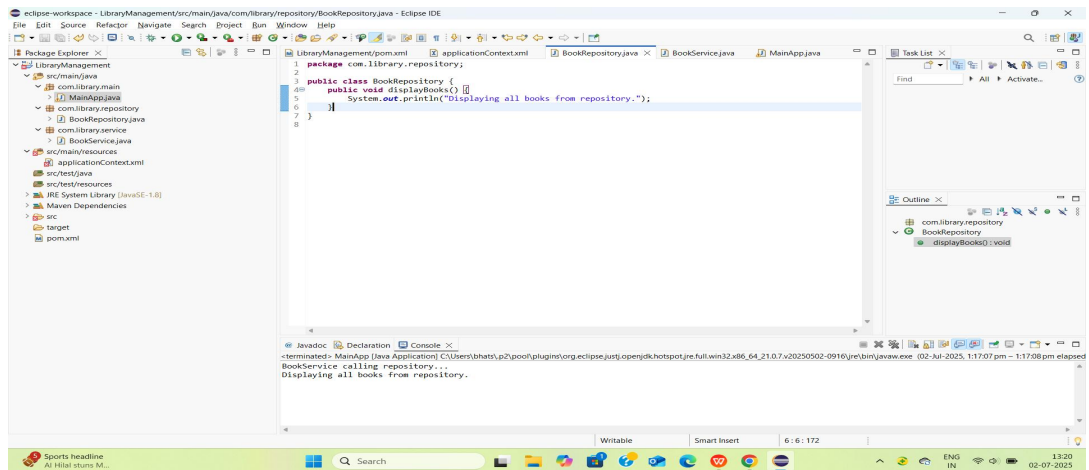
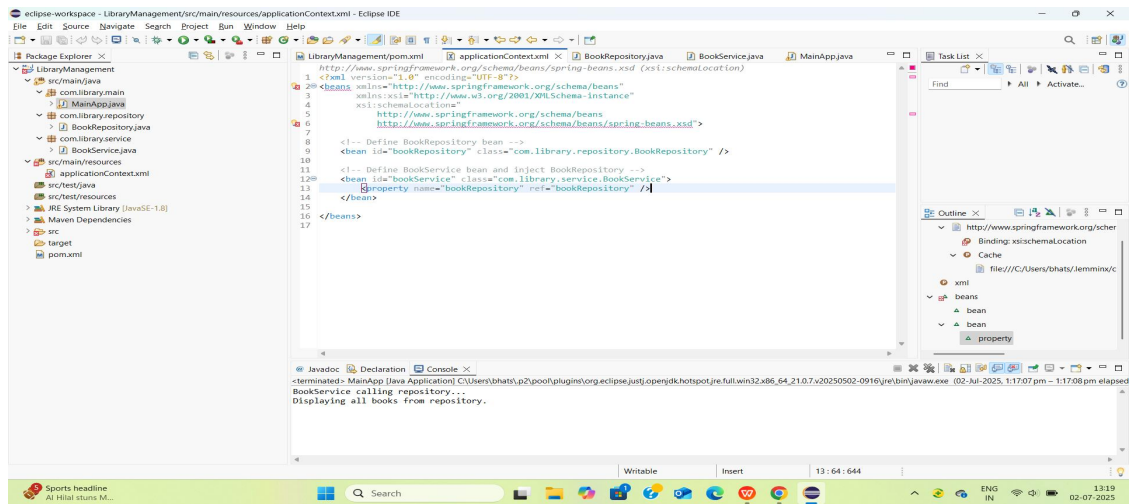
Your company is developing a web application for managing a library. You need to use the Spring Framework to handle the backend operations.

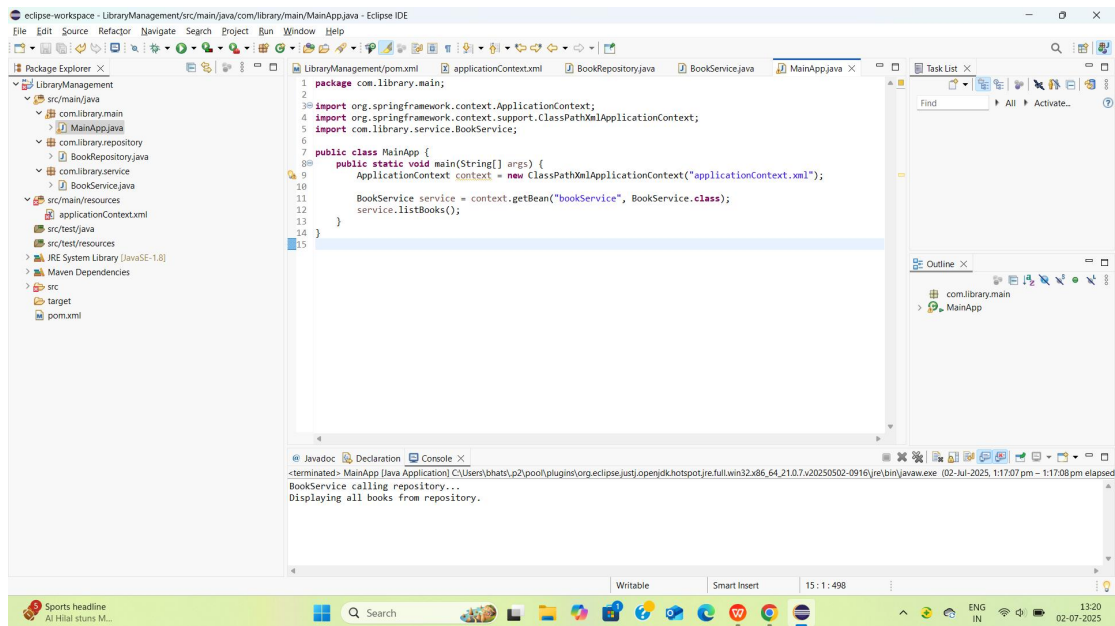
Steps:

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**.
4. **Run the Application:**

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







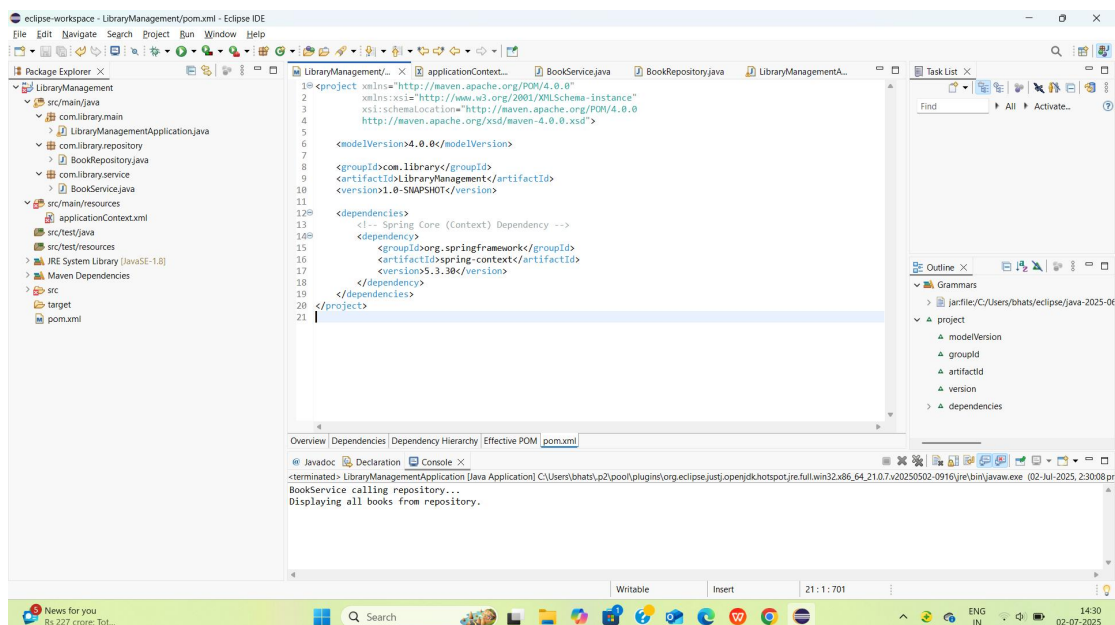
Exercise 2: Implementing Dependency Injection

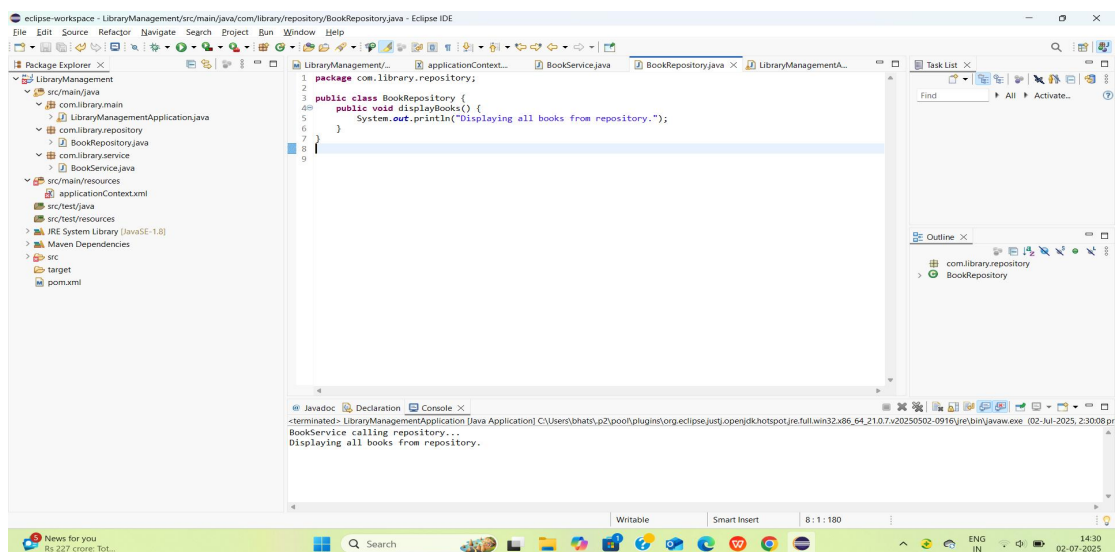
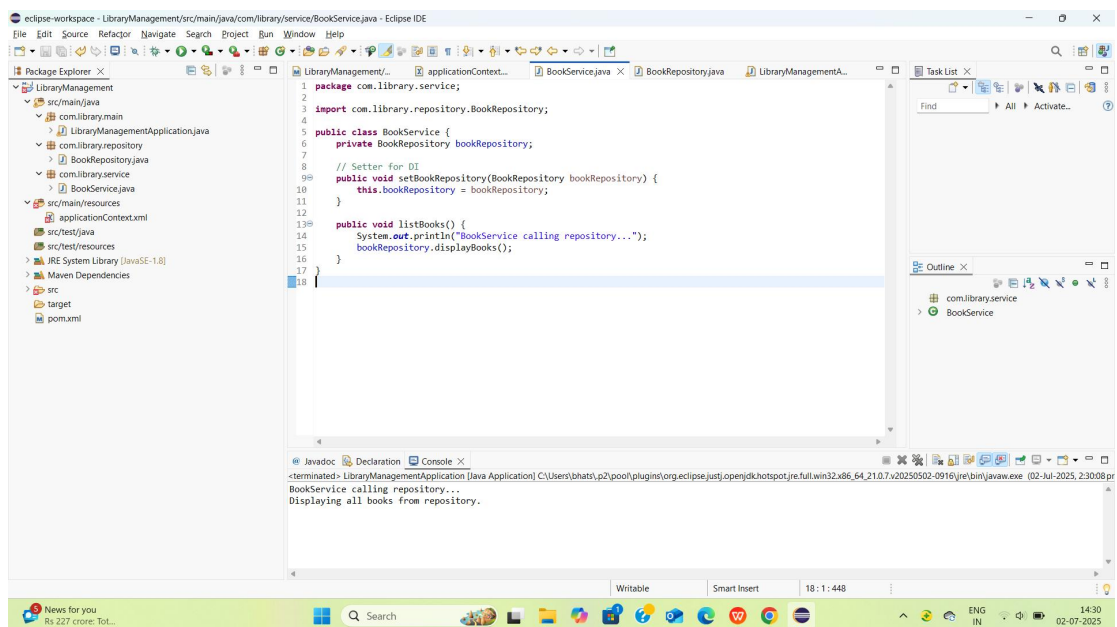
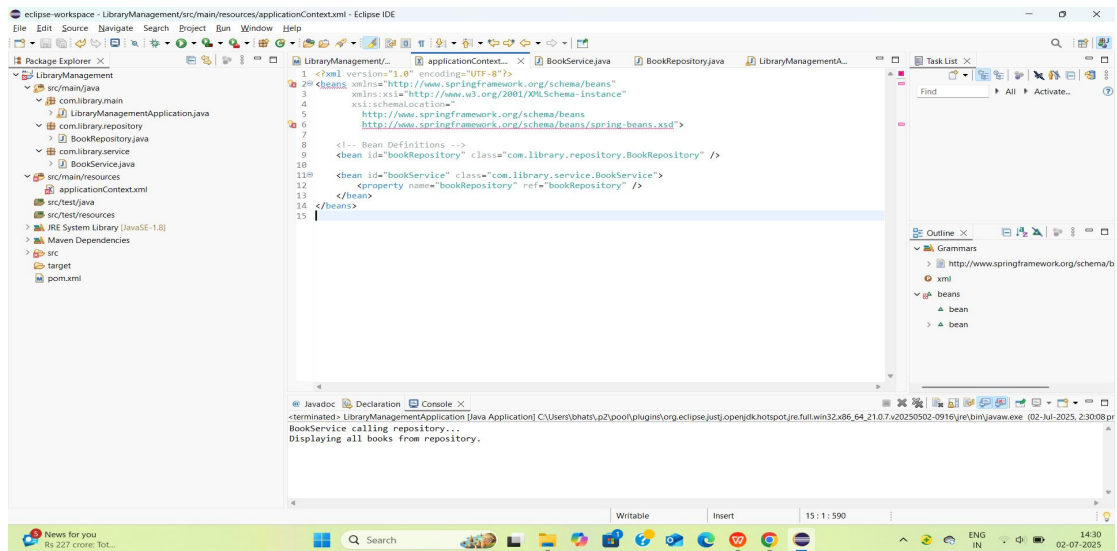
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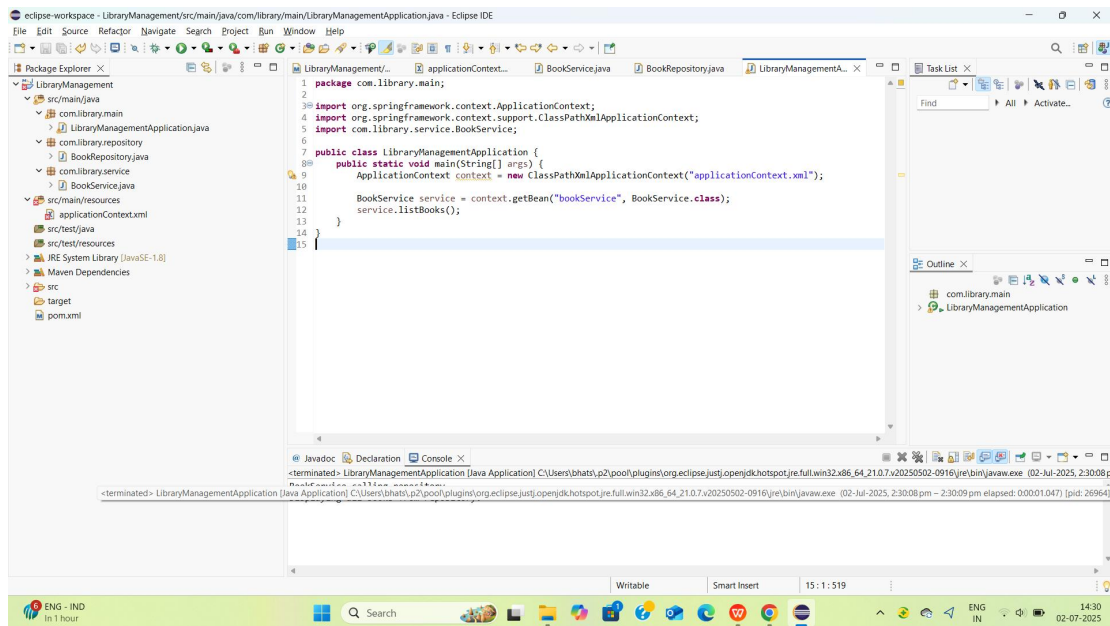
In the library management application, you need to manage the dependencies between the BookService and BookRepository classes using Spring's IoC and DI.

Steps:

1. **Modify the XML Configuration:**
 - Update **applicationContext.xml** to wire **BookRepository** into **BookService**.
2. **Update the BookService Class:**
 - Ensure that **BookService** class has a setter method for **BookRepository**.
3. **Test the Configuration:**
 - Run the **LibraryManagementApplication** main class to verify the dependency injection.







Exercise 4: Creating and Configuring a Maven Project

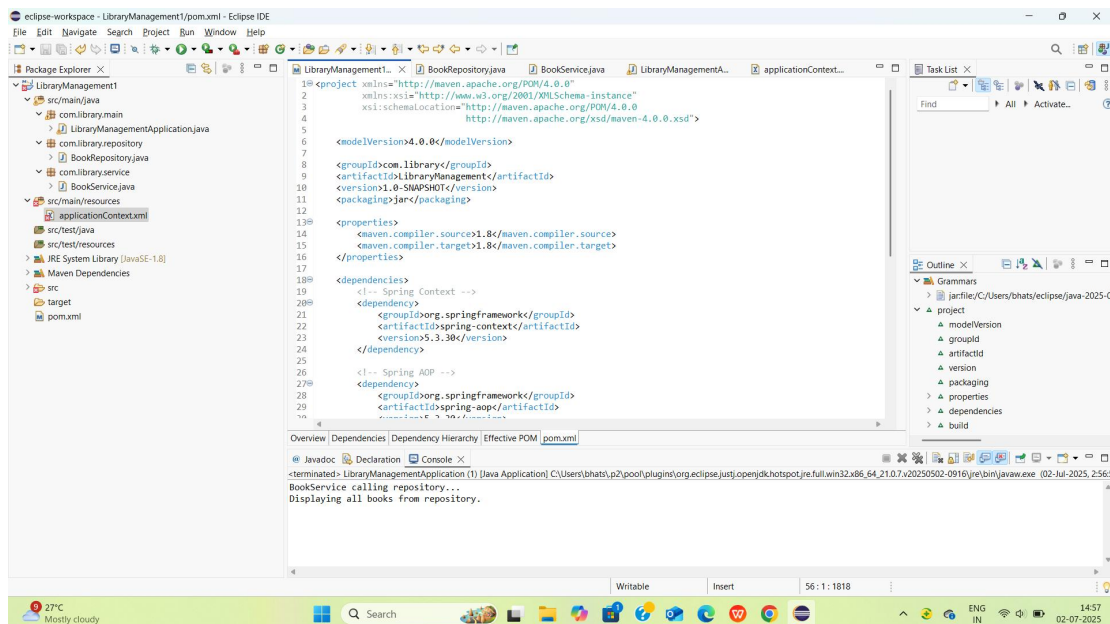
Scenario:

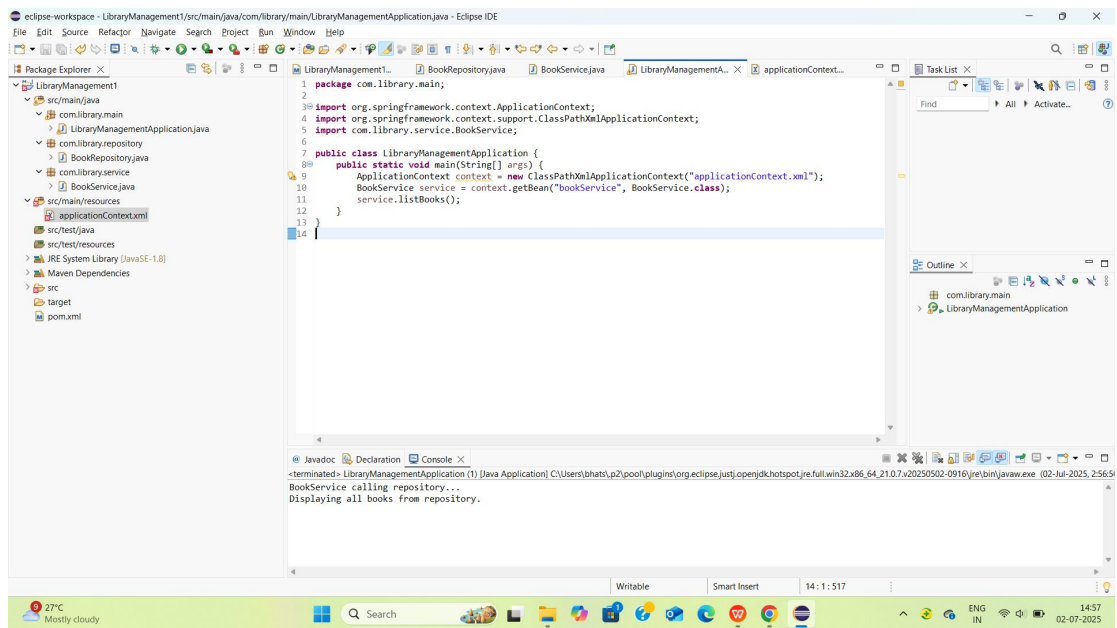
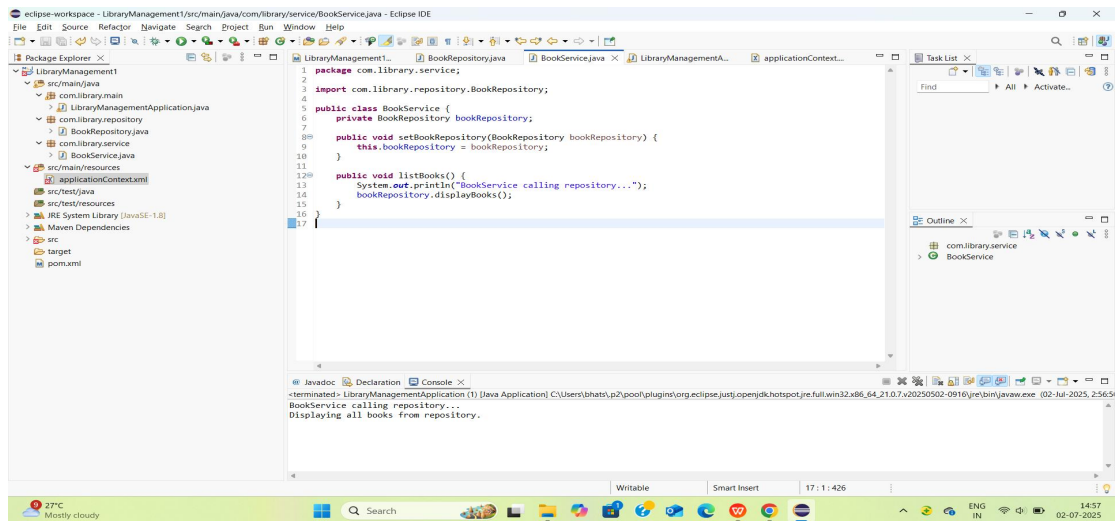
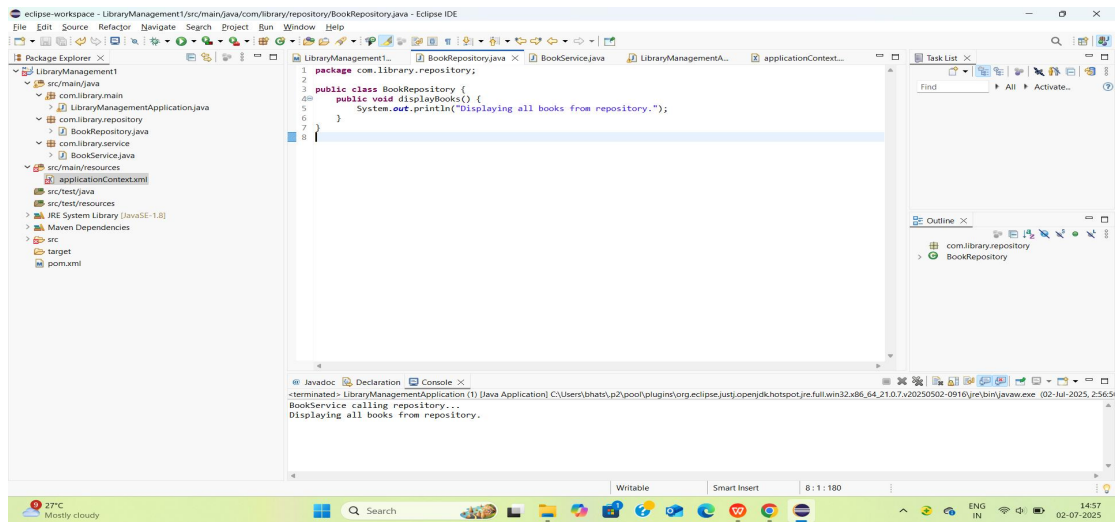
You need to set up a new Maven project for the library management application and add Spring dependencies.

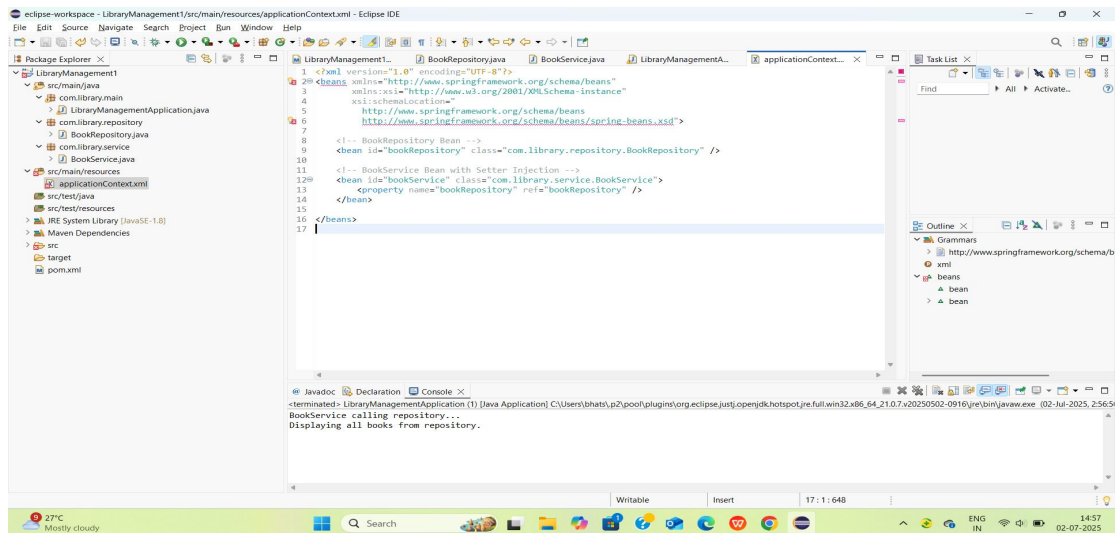
Steps:

1. **Create a New Maven Project:**
 - Create a new Maven project named **LibraryManagement**.
2. **Add Spring Dependencies in pom.xml:**
 - Include dependencies for Spring Context, Spring AOP, and Spring WebMVC.
3. **Configure Maven Plugins:**

Configure the Maven Compiler Plugin for Java version 1.8 in the pom.xml file.







Spring Data JPA - Quick Example

