

## **1.Set Up a Spring Project**

### **Pom.xml**

```
<project xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-
  ma-instance"
  xsi:schemaLocation="http://maven.apache.org/
  POM/4.0.0 http://maven.apache.org/xsd/maven-
  4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>com.library</groupId>
  <artifactId>LibraryManagement</artifactId>
  <version>1.0</version>
  <dependencies>
    <!-- Spring Core -->
    <dependency>
      <groupId>org.springframework</groupId>
      <artifactId>spring-context</artifactId>
      <version>5.3.34</version>
    </dependency>
  </dependencies>
</project>
```

## **2.Configure the Application Context**

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

```

    http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans.xsd">
<bean id="bookRepository" class="com.library.repository.BookRepository" />
<bean id="bookService" class="com.library.service.BookService">

    <property name="bookRepository" ref="bookRepository"/>

</bean>

</beans>

```

### **3. Define Service and Repository Classes**

#### **com/library/repository/BookRepository.java**

```

package com.library.repository;
public class BookRepository {

    public void saveBook(String title) {

        System.out.println("BookRepository: Saving book titled \"" + title + "\" to
        the database.");

    }

}

```

#### **com/library/service/BookService.java**

```

package com.library.service;
import com.library.repository.BookRepository;
public class BookService {
    private BookRepository bookRepository;
    // Setter for Dependency Injection

    public void setBookRepository(BookRepository bookRepository) {

        this.bookRepository = bookRepository;

    }
    public void addBook(String title) {

        System.out.println("BookService: Adding book titled \"" + title + "\"...");

        bookRepository.saveBook(title);

    }

}

```

## 4.Run the Application

```
com/library/LibraryApp.java
package com.library;
import com.library.service.BookService;

import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
public class LibraryApp {

    public static void main(String[]

        args) { Load Spring context

        from XML

        ApplicationContext context = new
        ClassPathXmlApplicationContext("applicationContext.xml");
        BookService bookService = context.getBean("bookService",
        BookService.class);
        bookService.addBook("Effective Java");

    }

}
```

## OUTPUT:



