Answer 1:

Create a Maven project named **LibraryManagement** with the following structure:

LibraryManagement/

pom.xml

src/

main/

java/

com/

library/

service/

repository/

resources/

applicationContext.xml

test/

java/

com/

library/

...

Add the following dependencies to the **pom.xml** file:

<dependencies>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-context</artifactId>

<version>5.3.22</version>

</dependency>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-beans</artifactId>

<version>5.3.22</version>

</dependency>

</dependencies>

Step 2: Configure the Application Context

Create an XML configuration file named applicationContext.xml in the src/main/resources directory:

<?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

http://www.springframework.org/schema/beans/spring-beans.xsd">

<bean id="bookService" class="com.library.service.BookService">

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

</bean>

<bean id="bookRepository" class="com.library.repository.BookRepository"/>

</beans>

Step 3: Define Service and Repository Classes

Create a package com.library.service and add a class BookService:

package com.library.service;

public class BookService {

private BookRepository bookRepository;

public void setBookRepository(BookRepository bookRepository) {

this.bookRepository = bookRepository;

}

public void addBook(String title, String author) {

// TO DO: implement book addition logic

}

}

Create a package com.library.repository and add a class BookRepository:

package com.library.repository;

public class BookRepository {

// TO DO: implement book repository logic

}

Step 4: Run the Application

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

package com.library;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class LibraryManagementApp {

public static void main(String[] args) {

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

BookService bookService = (BookService) context.getBean("bookService");

bookService.addBook("Java Programming", "John Doe");

}

}