**Exercise 7: Implementing Constructor and Setter Injection**

<!-- applicationContext.xml -->

<?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">

<!-- Constructor Injection -->

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

<constructor-arg ref="bookRepository"/>

</bean>

<!-- Setter Injection -->

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

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

</bean>

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

</beans>

<!-- BookService.java -->

public class BookService {

private BookRepository bookRepository;

// Constructor Injection

public BookService(BookRepository bookRepository) {

this.bookRepository = bookRepository;

}

// Setter Injection

public void setBookRepository(BookRepository bookRepository) {

this.bookRepository = bookRepository;

}

public void doSomething() {

bookRepository.doSomething();

}

}

<!-- LibraryManagementApplication.java -->

public class LibraryManagementApplication {

public static void main(String[] args) {

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

BookService bookServiceConstructor = context.getBean("bookServiceConstructor", BookService.class);

BookService bookServiceSetter = context.getBean("bookServiceSetter", BookService.class);

// Test constructor injection

bookServiceConstructor.doSomething();

// Test setter injection

bookServiceSetter.doSomething();

}

}