Spring Core and Maven:

Exercise 7: Implementing Constructor and Setter Injection

CODE:

BookService.java:

package com.example.LibraryManagement;

public class BookService {

private BookRepository bookRepository;

private String libraryName;

public BookService(BookRepository bookRepository) {

this.bookRepository = bookRepository;

System.*out*.println("Constructor Injection: BookRepository injected.");

}

public void setLibraryName(String libraryName) {

this.libraryName = libraryName;

System.*out*.println("Setter Injection: libraryName set to " + libraryName);

}

public void addBook(String bookName) {

bookRepository.save(bookName);

System.*out*.println("BookService: Book '" + bookName + "' added to " + libraryName);

}

}

MainApp.java:

package com.example.LibraryManagement;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class MainApp {

public static void main(String[] args) {

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

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

service.addBook("Refactoring by Martin Fowler");

}

}

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">

<bean id="bookRepository" class="com.example.LibraryManagement.BookRepository" />

<bean id="bookService" class="com.example.LibraryManagement.BookService">

<constructor-arg ref="bookRepository" />

<property name="libraryName" value="City Central Library" />

</bean>

</beans>

OUTPUT:

