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

BookRepository.java

package com.library.repository;  
  
public class BookRepository {  
 public String getBook() {  
 return "The Way of Kings";  
 }  
}

BookService.java

package com.library.service;  
  
import com.library.repository.BookRepository;  
  
public class BookService {  
 private BookRepository bookRepository;  
 private String libraryName;  
public BookService(BookRepository bookRepository) {  
 this.bookRepository = bookRepository;  
 }  
public void setLibraryName(String libraryName) {  
 this.libraryName = libraryName;  
 }  
  
 public void printBook() {  
 System.*out*.println("Book: " + bookRepository.getBook());  
 System.*out*.println("Library: " + libraryName);  
 }  
}

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.library.repository.BookRepository" />  
  
 <bean id="bookService" class="com.library.service.BookService">  
 <!-- Constructor Injection -->  
 <constructor-arg ref="bookRepository" />  
 <!-- Setter Injection -->  
 <property name="libraryName" value="City Central Library" />  
 </bean>  
</beans>

LibraryManagementApplication.java

import com.library.service.BookService;  
import org.springframework.context.ApplicationContext;  
import org.springframework.context.support.ClassPathXmlApplicationContext;  
  
public class LibraryManagementApplication {  
 public static void main(String[] args) {  
 ApplicationContext context = new ClassPathXmlApplicationContext("applicationContext.xml");  
  
 BookService bookService = (BookService) context.getBean("bookService");  
 bookService.printBook();  
 }  
}

Output

