Exercise 1: Configuring a Basic Spring Application

Tool: IntelliJ IDEA

App.java

package com.library;

```java
import com.library.service.BookService;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;

public class App {
   public static void main(String[] args) {
      ApplicationContext context = new
ClassPathXmlApplicationContext("applicationContext.xml");
      BookService bookService = (BookService) context.getBean("bookService");
      bookService.addBook("Spring in Action");
      ((ClassPathXmlApplicationContext) context).close();
   }
}
```

BookRepository java class file:

package com.library.repository;

```java
public class BookRepository {
   public void saveBook(String title) {
      System.out.println("Book saved: " + title);
   }
}
```

Bookservice java class file:

package com.library.service;

```java
import com.library.repository.BookRepository;

public class BookService {
```

```java
    private BookRepository bookRepository;

    // Setter Injection
    public void setBookRepository(BookRepository bookRepository) {
        this.bookRepository = bookRepository;
    }

    public void addBook(String title) {
        bookRepository.saveBook(title);
    }
}
```

applicationContext.xml file:

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

</beans>
```

Output:

```java
package com.library;

import com.library.service.BookService;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;

public class App {
    public static void main(String[] args) {
        ApplicationContext context = new ClassPathXmlApplicationContext( configLocation: "applicationContext.xml")
        BookService bookService = (BookService) context.getBean( s: "bookService");
        bookService.addBook( title: "Spring in Action");
        ((ClassPathXmlApplicationContext) context).close();
    }
}
```

Run — App

```
/opt/homebrew/opt/java/libexec/openjdk.jdk/Contents/Home/bin/java -javaagent:/Applications/IntelliJ IDEA.app/Conter
Book saved: Spring in Action

Process finished with exit code 0
```

Performance

Show Results   ⊙ 00:00

Process Terminated