**WEEK – 3**

**SPRING CORE AND MAVEN EXERCISE**

**EXERCISE 2: IMPLEMENTING DEPENDENCY INJECTION**

**pom.xml:**

<project xmlns="http://maven.apache.org/POM/4.0.0"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://maven.apache.org/POM/4.0.0

http://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>com.library</groupId>

<artifactId>LibraryDIExample</artifactId>

<version>1.0.0</version>

<name>LibraryDIExample</name>

<dependencies>

<!-- Spring Core -->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-context</artifactId>

<version>5.3.33</version>

</dependency>

</dependencies>

<build>

<plugins>

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-compiler-plugin</artifactId>

<version>3.8.1</version>

<configuration>

<source>1.8</source>

<target>1.8</target>

</configuration>

</plugin>

</plugins>

</build>

</project>

**src/main/java:**

**BookRepository.java:**

package com.library.repository;

public class BookRepository {

public void displayBook() {

System.out.println("Displaying book details from BookRepository");

}

}

**BookService.java:**

package com.library.service;

import com.library.repository.BookRepository;

public class BookService {

private BookRepository bookRepository;

// Setter for Dependency Injection

public void setBookRepository(BookRepository bookRepository) {

this.bookRepository = bookRepository;

}

public void showBook() {

bookRepository.displayBook();

}

}

**LibraryMain.java:**

package com.library.main;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

import com.library.service.BookService;

public class LibraryMain {

public static void main(String[] args) {

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

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

service.showBook();

}

}

**src/main/resources:**

**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

https://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:**



