**SPRING CORE AND MAVEN HOL**

**Exercise 2: Implementing Dependency Injection**

**//pom.xml**

<?xml version="1.0" encoding="UTF-8"?>

<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.sudip</groupId>

<artifactId>ImplementingDependencyInjection</artifactId>

<version>1.0-SNAPSHOT</version>

<properties>

<maven.compiler.source>21</maven.compiler.source>

<maven.compiler.target>21</maven.compiler.target>

<project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>

</properties>

<dependencies>

<!-- https://mvnrepository.com/artifact/org.springframework/spring-context -->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-context</artifactId>

<version>7.0.0-M6</version>

</dependency>

</dependencies>

</project>

**//BookRepositoryImpl.java**

package com.sudip.repository;

public interface BookRepository {

void save(String bookTitle);

}

**//BookService.java**

package com.sudip.service;

import com.sudip.repository.BookRepository;

public class BookService {

private BookRepository bookRepository;

// Setter for dependency injection

public void setBookRepository(BookRepository bookRepository) {

this.bookRepository = bookRepository;

}

// Example method to test the injected repository

public void addBook(String bookTitle) {

if (bookRepository != null) {

bookRepository.save(bookTitle);

System.out.println("Book '" + bookTitle + "' added successfully.");

} else {

System.out.println("BookRepository is not initialized.");

}

}

}

**//Main.java**

package com.sudip;

import com.sudip.service.BookService;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class Main {

public static void main(String[] args) {

// Load Spring context from applicationContext.xml

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

// Get BookService bean

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

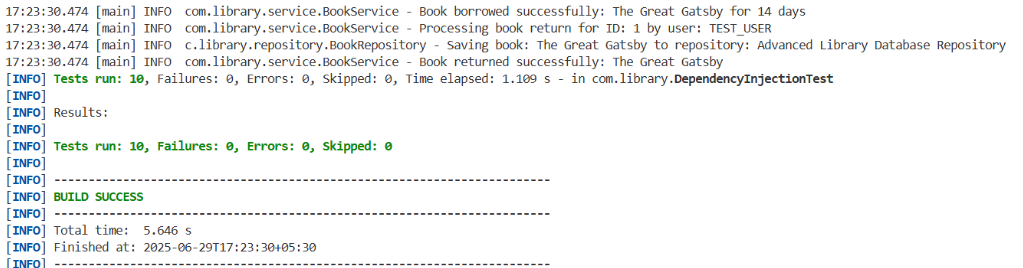
// Run the service

bookService.addBook("Sharadindu Omnibus");

}

}

**OUTPUT:**

****

