**Exercise 3: Implementing Logging with Spring AOP**

**1.pom.xml — Add Spring AOP dependency:**

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-aop</artifactId>

</dependency>

<dependency>

<groupId>org.aspectj</groupId>

<artifactId>aspectjweaver</artifactId>

</dependency>

**2.Create LoggingAspect.java**

package com.library.aspect;

import org.aspectj.lang.ProceedingJoinPoint;

public class LoggingAspect {

public Object logExecutionTime(ProceedingJoinPoint joinPoint) throws Throwable {

long start = System.currentTimeMillis();

Object proceed = joinPoint.proceed();

long executionTime = System.currentTimeMillis() - start;

System.out.println(joinPoint.getSignature() + " executed in " + executionTime + "ms");

return proceed;

}

}

**3. Update applicationContext.xml:**

<aop:aspectj-autoproxy xmlns:aop="http://www.springframework.org/schema/aop"/>

<bean id="loggingAspect" class="com.library.aspect.LoggingAspect"/>

<aop:config>

<aop:aspect ref="loggingAspect">

<aop:around pointcut="execution(\* com.library.service.BookService.\*(..))"

method="logExecutionTime"/>

</aop:aspect>

</aop:config>