

一，后置通知

1，配置文件

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:aop="http://www.springframework.org/schema/aop"
    xmlns:context="http://www.springframework.org/schema/context"
    xmlns:jdbc="http://www.springframework.org/schema/jdbc"
    xmlns:jee="http://www.springframework.org/schema/jee"
    xmlns:tx="http://www.springframework.org/schema/tx"
    xmlns:util="http://www.springframework.org/schema/util"
    xmlns:task="http://www.springframework.org/schema/task"
    xsi:schemaLocation="http://www.springframework.org/schema/beans
http://www.springframework.org/schema/beans/spring-beans-4.0.xsd
http://www.springframework.org/schema/aop
http://www.springframework.org/schema/aop/spring-aop-4.0.xsd
http://www.springframework.org/schema/context
http://www.springframework.org/schema/context/spring-context-4.0.xsd
http://www.springframework.org/schema/jdbc
http://www.springframework.org/schema/jdbc/spring-jdbc-4.0.xsd
http://www.springframework.org/schema/jee
http://www.springframework.org/schema/jee/spring-jee-4.0.xsd
http://www.springframework.org/schema/tx
http://www.springframework.org/schema/tx/spring-tx-4.0.xsd
http://www.springframework.org/schema/util
http://www.springframework.org/schema/util/spring-util-4.0.xsd
http://www.springframework.org/schema/task
http://www.springframework.org/schema/task/spring-task-4.0.xsd"
    default-lazy-init="false">
    <!-- 开启注解扫描,base-package的值就是需要进行注解开发的类所在的包，若只有
    俩三个包的话，可以写cn.java或者cn（1）到指定的包中扫描类、方法、属性上是否有注解
    -->
    <context:component-scan base-package="cn.java"></context:component-
    scan>
    <!-- 配置对象 -->
    <bean id="book" class="cn.java.aop.Book"></bean>
    <bean id="mybook" class="cn.java.aop.My_Book"></bean>
    <!-- 配置aop配置 -->
    <aop:config proxy-target-class="true">
        <!-- 配置切入点 -->
        <aop:pointcut expression="execution(* cn.java.aop.Book.*(..))"
            id="MypointCut" />
        <!-- 配置切面 :把增强用到方法上去 -->
        <aop:aspect ref="mybook">
            <!-- 配置增强类型：method：增强类里面使用哪个方法作为前置 -->
```

```

        <aop:before method="before1" pointcut-ref="MypointCut" />
        <!-- 后置增强 -->
        <aop:after-returning method="after_mehtod" pointcut-
ref="MypointCut"/>
    </aop:aspect>
</aop:config>
</beans>

```

2, book实体类

```

package cn.java.aop;
public class Book {
public void add(){
    System.out.println("add.....");
}
}

```

3, my_book实体类

```

package cn.java.aop;
public class My_Book {
public void before1(){
    System.out.println("前置增强.....");
}
public void after_mehtod(){
    System.out.println("这是一个后置增强-----");
}
}

```

4, 测试代码

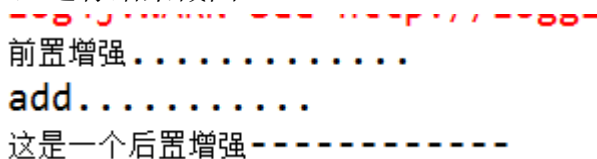
```

package cn.java.aop;
import org.junit.Test;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;

public class test {
    @Test
    public void t1() {
        ApplicationContext context = new
ClassPathXmlApplicationContext("application.xml");
        Book book = (Book) context.getBean("book");
        book.add();
    }
}

```

5, 运行结果截图



```

前置增强.....
add.....
这是一个后置增强-----

```

二，环绕通知

1, application.xml配置文件

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       xmlns:aop="http://www.springframework.org/schema/aop"
       xmlns:context="http://www.springframework.org/schema/context"
       xmlns:jdbc="http://www.springframework.org/schema/jdbc"
       xmlns:jee="http://www.springframework.org/schema/jee"
       xmlns:tx="http://www.springframework.org/schema/tx"
       xmlns:util="http://www.springframework.org/schema/util"
       xmlns:task="http://www.springframework.org/schema/task"
       xsi:schemaLocation="http://www.springframework.org/schema/beans
http://www.springframework.org/schema/aop
http://www.springframework.org/schema/aop/spring-aop-4.0.xsd
http://www.springframework.org/schema/context
http://www.springframework.org/schema/context/spring-context-4.0.xsd
http://www.springframework.org/schema/jdbc
http://www.springframework.org/schema/jdbc/spring-jdbc-4.0.xsd
http://www.springframework.org/schema/jee
http://www.springframework.org/schema/jee/spring-jee-4.0.xsd
http://www.springframework.org/schema/tx
http://www.springframework.org/schema/tx/spring-tx-4.0.xsd
http://www.springframework.org/schema/util
http://www.springframework.org/schema/util/spring-util-4.0.xsd
http://www.springframework.org/schema/task
http://www.springframework.org/schema/task/spring-task-4.0.xsd"
       default-lazy-init="false">
    <!-- 开启注解扫描,base-package的值就是需要进行注解开发的类所在的包，若只有
    俩三个包的话，可以写cn.java或者cn（1）到指定的包中扫描类、方法、属性上是否有注解
    -->
    <context:component-scan base-package="cn.java"></context:component-
scan>
    <!-- 配置对象 -->
    <bean id="book" class="cn.java.aop.Book"></bean>
    <bean id="mybook" class="cn.java.aop.My_Book"></bean>
    <!-- 配置aop配置 -->
    <aop:config proxy-target-class="true">
        <!-- 配置切入点 -->
        <aop:pointcut expression="execution(* cn.java.aop.Book.*(..))"
            id="MypointCut" />
        <!-- 配置切面 :把增强用到方法上去 -->
        <aop:aspect ref="mybook">
            <!-- 配置增强类型： method：增强类里面使用哪个方法作为前置 -->
            <aop:before method="before1" pointcut-ref="MypointCut" />
        </aop:aspect>
    </aop:config>
</beans>
```

```

        <!-- 后置增强 -->
        <aop:after-returning method="after_mehtod" pointcut-
ref="MypointCut"/>
        <!-- 环绕增强 -->
        <aop:around method="around1" pointcut-ref="MypointCut"/>
    </aop:aspect>
</aop:config>
</beans>

```

2, book实体类

```

package cn.java.aop;
public class Book {
public void add(){
    System.out.println("add.....");
}
}

```

3, my_book实体类

```

package cn.java.aop;
import org.aspectj.lang.ProceedingJoinPoint;
public class My_Book {
    public void before1() {
        System.out.println("前置增强.....");
    }
    public void after_mehtod() {
        System.out.println("这是一个后置增强-----");
    }
    // 环绕通知
    public void around1(ProceedingJoinPoint proceedingJoinPoint) throws
Throwable {
        //方法之前
        System.out.println("方法之前=====");
        //执行被增强的方法
        proceedingJoinPoint.proceed();
        //方法之后
        System.out.println("方法之后=====");
        test_around();
    }
    public void test_around(){
        System.out.println("方法之后的参数=====");
    }
}

```

4, 测试代码

```

package cn.java.aop;
import org.junit.Test;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;

```

```

public class test {
    @Test
    public void t1() {
        ApplicationContext context = new
ClassPathXmlApplicationContext("application.xml");
        Book book = (Book) context.getBean("book");
        book.add();
    }
}

```

5, 测试运行结果

```

前置增强.....
方法之前=====
add.....
方法之后=====
方法之后的参数=====
这是一个后置增强-----

```