南通大学计算机学院

Java**软件实践课程设计实验报告**



**课 题 名 网上书店**

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# 一、设计目标

网上书店分为前台和后台，后台管理的用户是系统管理员，前台用户是普通的顾客，也就是普通消费者，主要功能是浏览图书、查看图书详细信息、添加购物车和结账的功能。**二、设计内容**

# （一） 数据库操作

### 1.数据库的设计

### 2.创建项目工程

### 3.编写数据库操作接口类和业务逻辑的接口类

### 4.编写数据库操作接口的实现类和业务逻辑的接口的实现类

# （二）　编写spring 配置文件

# （三）　编写业务逻辑的测试类

# （四）　编写Action类和Struts.xml文件

# （五） 编写JSP页面

页面及功能：

|  |  |
| --- | --- |
| login.jsp | 用户登录  登录 |
| addbooks.jsp | 添加图书  添加图书 |
| addorder.jsp | 添加订单  添加订单 |
| addUser.jsp | 添加用户  添加用户 |
| listBooks.jsp | 显示图书列表  图书列表 |
| viewCarts.jsp | 查看购物车  查看购物车 |
| viewBooks.jsp | 显示图书详细信息  详细信息 |

# （六）　测试工程

### 1.struts配置文件

### 2.校验框架

### 3.Spring配置文件

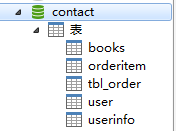
### 4.测试工程

1. **设计要求**

创建一个WEB工程，工程名为p+学号，这里假设学号为“001”工程的目录结构如图4所示。并为工程添加struts2,spring和Hibernate的支持。S001.po包中存放所有的POJO类和映射文件，s001.dao中存放的是数据库的操作类的接口，s001.dao.impl中存放的是数据库的操作类的接口的实现类，s001.userservice中存放的是业务逻辑的接口，s001.userservice.impl中存放的是业务逻辑的接口的实现类，s001.action包中存放的是struts2的相关action。项目中要求使用国际化资源文件，所以要创建中文资源文件messageResources\_zh\_CN.properties。

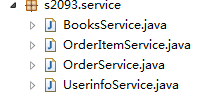
**数据库：**

为每个数据表编写一个数据库操作接口类。他们分别是userinfo表操作接口userinfoDao、order表操作接口orderDao、orderitem表操作接口orderitemDao和books表操作接口booksDao。



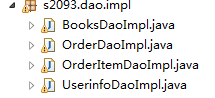
**四个业务逻辑接口类：**

userinfoService，orderService，orderitemService和booksService



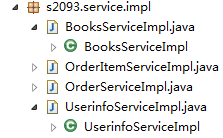
**数据操作接口实现类是**：

userinfoDaoImpl、orderDaoImpl、orderitemDaoImpl和booksDaoImpl。



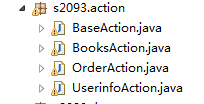
**业务逻辑接口的实现类是：**

userinfoServiceImpl，orderServiceImpl，orderitemServiceImpl和booksServiceImpl



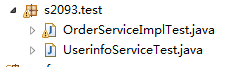
**功能实现：**

每个Action对应一个数据库表，这里创建了三个Action：UserinfoAction、OrderAction、BooksAction。



**功能测试：**

对每个业务逻辑都要进行测试，通过junit进行测试，每一个业务逻辑的实现类创建一个测试用例



**四、程序流程图**

否

添加到购物车？

是

是

否

顾客登录网站

顾客浏览图书

查看某一本书的详细信息

添加进购物车

添加顾客信息

结账

显示总金额并结束会话

浏览购物车

是否结账？

图1网上书店购物流程图

管理员

添加用户

修改权限

添加图书

查看订单

图2管理员功能图

1. **程序关键代码**

**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"*

xmlns:aop=*"http://www.springframework.org/schema/aop"*

xmlns:context=*"http://www.springframework.org/schema/context"*

xmlns:tx=*"http://www.springframework.org/schema/tx"*

xsi:schemaLocation=*"http://www.springframework.org/schema/beans http://www.springframework.org/schema/beans/spring-beans.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/tx http://www.springframework.org/schema/tx/spring-tx-4.0.xsd"*>

<context:property-placeholder location=*"classpath:db.properties"* />

<bean id=*"dataSource"* class=*"com.mchange.v2.c3p0.ComboPooledDataSource"*>

<property name=*"user"* value=*"${jdbc.user}"*></property>

<property name=*"password"* value=*"${jdbc.password}"*></property>

<property name=*"jdbcUrl"* value=*"${jdbc.jdbcUrl}"*></property>

<property name=*"driverClass"* value=*"${jdbc.driverClass}"*></property>

<property name=*"initialPoolSize"* value=*"${jdbc.initPoolSize}"*></property>

<property name=*"maxPoolSize"* value=*"${jdbc.maxPoolSize}"*></property>

</bean>

<bean id=*"sessionFactory"*

class=*"org.springframework.orm.hibernate4.LocalSessionFactoryBean"*>

<property name=*"dataSource"* ref=*"dataSource"*></property>

<property name=*"configLocation"* value=*"classpath:hibernate.cfg.xml"*></property>

<property name=*"mappingLocations"* value=*"classpath:s2093/po/\*.hbm.xml"*></property>

</bean>

<bean id=*"transactionManager"*

class=*"org.springframework.orm.hibernate4.HibernateTransactionManager"*>

<property name=*"sessionFactory"* ref=*"sessionFactory"*></property>

</bean>

<tx:advice id=*"txAdvice"* transaction-manager=*"transactionManager"*>

<tx:attributes>

<tx:method name=*"get\*"* read-only=*"true"* />

<tx:method name=*"\*"* />

</tx:attributes>

</tx:advice>

<aop:config>

<aop:pointcut expression=*"execution(\* s2093.service.impl.\*.\*(..))"*

id=*"txPointCut"*/>

<aop:advisor advice-ref=*"txAdvice"* pointcut-ref=*"txPointCut"*/>

</aop:config>

<bean id=*"userinfoDao"* class=*"s2093.dao.impl.UserinfoDaoImpl"*>

<property name=*"sessionFactory"* ref=*"sessionFactory"*></property>

</bean>

<bean id=*"userinfoService"* class=*"s2093.service.impl.UserinfoServiceImpl"*>

<property name=*"userinfoDao"* ref=*"userinfoDao"*></property>

</bean>

<bean id=*"booksDao"* class=*"s2093.dao.impl.BooksDaoImpl"*

scope=*"prototype"*>

<property name=*"sessionFactory"* ref=*"sessionFactory"*></property>

</bean>

<bean id=*"booksService"* class=*"s2093.service.impl.BooksServiceImpl"*>

<property name=*"booksDao"* ref=*"booksDao"*></property>

</bean>

<bean id=*"orderDao"* class=*"s2093.dao.impl.OrderDaoImpl"*

scope=*"prototype"*>

<property name=*"sessionFactory"* ref=*"sessionFactory"*></property>

</bean>

<bean id=*"orderService"* class=*"s2093.service.impl.OrderServiceImpl"*>

<property name=*"orderDao"* ref=*"orderDao"*></property>

</bean>

<bean id=*"orderitemDao"* class=*"s2093.dao.impl.OrderItemDaoImpl"*

scope=*"prototype"*>

<property name=*"sessionFactory"* ref=*"sessionFactory"*></property>

</bean>

<bean id=*"orderitemService"* class=*"s2093.service.impl.OrderItemServiceImpl"*>

<property name=*"orderitemDao"* ref=*"orderitemDao"*></property>

</bean>

</beans>

**Struts.xml**

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

<!DOCTYPE struts PUBLIC

"-//Apache Software Foundation//DTD Struts Configuration 2.3//EN"

"http://struts.apache.org/dtds/struts-2.3.dtd">

<struts>

<constant name="struts.devMode" value="true" />

<constant name="struts.custom.i18n.resources" value="messageResource"></constant>

<package name="action" extends="struts-default">

<action name="login" class="s2093.action.UserinfoAction" method="login">

<result name="success">/pages/listBooks.jsp</result>

<result name="input">/login.jsp</result>

</action>

<action name="viewDetails" class="s2093.action.BooksAction" method="detailBooks">

<result name="success">/pages/viewBooks.jsp</result>

</action>

<action name="addCart" class="s2093.action.BooksAction" method="addCart">

<result name="success">/pages/listBooks.jsp</result>

<result name="input">/login.jsp</result>

</action>

<action name="queryCart" class="s2093.action.BooksAction" method="queryCart">

<result name="success">/pages/viewCarts.jsp</result>

<result name="input">/login.jsp</result>

</action>

<action name="delCartItem" class="s2093.action.BooksAction" method="delCartItem">

<result name="success">/pages/viewCarts.jsp</result>

<result name="input">/login.jsp</result>

</action>

<action name="clearCart" class="s2093.action.BooksAction" method="clearCart">

<result name="success">/pages/viewCarts.jsp</result>

</action>

<action name="listBooks" class="s2093.action.BooksAction" method="listBooks">

<result name="success">/pages/listBooks.jsp</result>

</action>

<action name="register" class="s2093.action.UserinfoAction" method="register">

<result name="success">/login.jsp</result>

<result name="input" type="redirectAction">

<param name="actionName">listBooks</param>

</result>

</action>

<action name="balance" class="s2093.action.OrderAction" method="balance">

<result name="success">/pages/viewCarts.jsp</result>

<result name="input">/pages/vireCarts.jsp</result>

</action>

<action name="editBooks" class="s2093.action.UserinfoAction" method="editBooks">

<result name="input">/pages/vertify.jsp</result>

<result name="success">/pages/listBooks.jsp</result>

</action>

<action name="addBooks" class="s2093.action.BooksAction" method="addBooks">

<result name="success">/pages/listBooks.jsp</result>

</action>

<action name="listUser" class="s2093.action.UserinfoAction" method="listUser">

<result name="success">/pages/listUser.jsp</result>

</action>

<action name="updateRight" class="s2093.action.UserinfoAction" method="updateRight">

<result name="success">/pages/updateRight.jsp</result>

</action>

<action name="changeRight" class="s2093.action.UserinfoAction" method="changeRight">

<result name="success">/pages/listUser.jsp</result>

</action>

<action name="listOrder" class="s2093.action.OrderAction" method="listOrder">

<result name="success">/pages/listOrder.jsp</result>

</action>

</package>

</struts>

**Hibernate.cfg.xml**

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

<!DOCTYPE struts PUBLIC

"-//Apache Software Foundation//DTD Struts Configuration 2.3//EN"

"http://struts.apache.org/dtds/struts-2.3.dtd">

<struts>

<constant name="struts.devMode" value="true" />

<constant name="struts.custom.i18n.resources" value="messageResource"></constant>

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<action name="login" class="s2093.action.UserinfoAction" method="login">

<result name="success">/pages/listBooks.jsp</result>

<result name="input">/login.jsp</result>

</action>

<action name="viewDetails" class="s2093.action.BooksAction" method="detailBooks">

<result name="success">/pages/viewBooks.jsp</result>

</action>

<action name="addCart" class="s2093.action.BooksAction" method="addCart">

<result name="success">/pages/listBooks.jsp</result>

<result name="input">/login.jsp</result>

</action>

<action name="queryCart" class="s2093.action.BooksAction" method="queryCart">

<result name="success">/pages/viewCarts.jsp</result>

<result name="input">/login.jsp</result>

</action>

<action name="delCartItem" class="s2093.action.BooksAction" method="delCartItem">

<result name="success">/pages/viewCarts.jsp</result>

<result name="input">/login.jsp</result>

</action>

<action name="clearCart" class="s2093.action.BooksAction" method="clearCart">

<result name="success">/pages/viewCarts.jsp</result>

</action>

<action name="listBooks" class="s2093.action.BooksAction" method="listBooks">

<result name="success">/pages/listBooks.jsp</result>

</action>

<action name="register" class="s2093.action.UserinfoAction" method="register">

<result name="success">/login.jsp</result>

<result name="input" type="redirectAction">

<param name="actionName">listBooks</param>

</result>

</action>

<action name="balance" class="s2093.action.OrderAction" method="balance">

<result name="success">/pages/viewCarts.jsp</result>

<result name="input">/pages/vireCarts.jsp</result>

</action>

<action name="editBooks" class="s2093.action.UserinfoAction" method="editBooks">

<result name="input">/pages/vertify.jsp</result>

<result name="success">/pages/listBooks.jsp</result>

</action>

<action name="addBooks" class="s2093.action.BooksAction" method="addBooks">

<result name="success">/pages/listBooks.jsp</result>

</action>

<action name="listUser" class="s2093.action.UserinfoAction" method="listUser">

<result name="success">/pages/listUser.jsp</result>

</action>

<action name="updateRight" class="s2093.action.UserinfoAction" method="updateRight">

<result name="success">/pages/updateRight.jsp</result>

</action>

<action name="changeRight" class="s2093.action.UserinfoAction" method="changeRight">

<result name="success">/pages/listUser.jsp</result>

</action>

<action name="listOrder" class="s2093.action.OrderAction" method="listOrder">

<result name="success">/pages/listOrder.jsp</result>

</action>

</package>

</struts>