**Java Web开发**

**实验五**

**作业报告**

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| --- | --- |
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# 实验题目

1、 练习老师在理论课上演示的购物车实例，理解购物功能如何实现，理解如何利用session对象保存购物信息，如何设计封装数据类。（请参考“第四章会话管理课上的购物车实例代码.docx”文档）；

如果上课听懂了购物车的原理或者部分理解，可以参考我的实例完成第2题，此题可忽略不写。

2、 第四章课后练习3购物车，实现一个购物车应用程序，可以购物，显示购物数量并查看购物车内容。（此题模版test4E，提供给大家参考。）

提示：采购此书做成超链接，并用URL重写带关键信息

a) Shopping.view?bookID=‘0001’，其中0001是你选中图书对应的ID号，每点击一次就在相应的购书数量上加一，并返回当前的选购页面。

b) 除了要保存图书的ID号、书名，还要保存购书数量，所以session对象保存的信息需要考虑清楚，最好是一个对象

数组或列表。

购物车的效果图

3、 对第三章动态验证码程序实现动态验证。（选做）

提示：在生成动态验证码的同时将其放入HttpSession对象中，在网页上提取出来进行比对。

# 关键源码（部分）

**CarServlet.java**

package cc.test.Controller;

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

import cc.test.vo.Book;

import cc.test.vo.CBook;

@WebServlet("/session/cart.view")

public class CarServlet extends HttpServlet {

@Override

/\*判断得到session对象中存储的book信息是否为空

不为空的前提下，读出Book数组中的内容，并将数目不为1的图书信息显示在网页上。

\*/

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

request.setCharacterEncoding("utf-8");

HttpSession session=request.getSession();

String bookId, bookName, bookImg;

int bookNum;

Book[] BookList=(Book[])session.getAttribute("book");

CBook[] BookCar=new CBook[4];

session.setAttribute("bookC", BookCar);

if(BookList!= null)

{

for(int i=0;i<4;i++){

if(BookList[i].getBookNum()!=0) {

/\*BookCar[i].setBookNum(BookList[i].getBookNum());

BookCar[i].setBookId(BookList[i].getBookId());

BookCar[i].setBookName(BookList[i].getBookName());

BookCar[i].setBookImg(BookList[i].getBookImg());\*/

BookCar[i]=new CBook(BookList[i].getBookId(),BookList[i].getBookName(),BookList[i].getBookImg(),BookList[i].getBookNum());

}

}

session.setAttribute("bookC", BookCar);

response.sendRedirect("Shopping2.jsp");}

else

{

response.sendRedirect("Shopping2.jsp");

}

//将数组写回session对象中去。

//跳转回Shopping.jsp

}

//找到数组中与ID对应的Book对象，将其属性bookNum数字加1

public void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request,response);

}

}

**ShopingServlet.java**

package cc.test.Controller;

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

import cc.test.vo.Book;

@WebServlet("/session/shopping.view")

public class ShopingServlet extends HttpServlet {

@Override

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

//获取从Shopping.jsp传来的request对象中的ID号

request.setCharacterEncoding("utf-8");

HttpSession session=request.getSession();

String ID=request.getParameter("id");

//在ID号不为空的情况下，获取Session对象中的购物车信息，Book数组。

if(ID == null)

{

response.sendRedirect("Shopping.jsp");

}

else

{

Book[] BookList=(Book[])session.getAttribute("book");

AddbookNum( BookList,ID);

session.setAttribute("book", BookList);

response.sendRedirect("Shopping.jsp");

}

//将数组写回session对象中去。

//跳转回Shopping.jsp

}

//找到数组中与ID对应的Book对象，将其属性bookNum数字加1

private void AddbookNum(Book[] BookList,String ID) {

for(int i=0;i<BookList.length;i++) {

if(ID.equals(BookList[i].getBookId()))

{

BookList[i].Book(BookList[i].getBookNum()+1);

}

}

}

public void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request,response);

}

}

**Book.java**

**package** cc.test.vo;

**public** **class** Book {

**private** String bookId;

**private** String bookName;

String bookImg;

**private** **int** bookNum;

**public** Book(String bookId, String bookName, String bookImg, **int** bookNum) {

**this**.bookId = bookId;

**this**.bookName = bookName;

**this**.bookImg = bookImg;

**this**.bookNum = 0;

}

**public** String getBookId() {

**return** bookId;

}

**public** String getBookName() {

**return** bookName;

}

**public** String AddgetBookName() {

**return** bookName;

}

**public** String getBookImg() {

**return** bookImg;

}

**public** **int** getBookNum() {

**return** bookNum;

}

**public** **void** Book(**int** i) {

**this**.bookNum = i;

}

}

**CBook.java**

**package** cc.test.vo;

**public** **class** CBook {

**private** String bookId;

**private** String bookName;

String bookImg;

**private** **int** bookNum;

**public** CBook(String bookId, String bookName, String bookImg, **int** bookNum) {

**this**.bookId = bookId;

**this**.bookName = bookName;

**this**.bookImg = bookImg;

**this**.bookNum = 0;

}

**public** String getBookId() {

**return** bookId;

}

**public** String getBookName() {

**return** bookName;

}

**public** String getBookImg() {

**return** bookImg;

}

**public** **int** getBookNum() {

**return** bookNum;

}

**Shopping.jsp**

<%@ page language=*"java"* import=*"java.util.\*"* pageEncoding=*"UTF-8"*%>

<%@page import=*"cc.test.vo.\*"* %>

<!DOCTYPE HTML>

<meta charset=*"utf-8"*>

<html>

<%

//当第一次访问采购网页，session对象中还没有book购物车信息时，进行初始化。

**if** (session.getAttribute("book")==**null**){

//在session对象中存储图书采购信息

Book[] BookList = **new** Book[4];

BookList[0] = **new** Book("10101", "Java核心技术", "img\10101.jpg", 0);

BookList[1] = **new** Book("10102", "Java经典实例", "img\10102.jpg", 0);

BookList[2] = **new** Book("10103", "Java7", "img\10103.jpg", 0);

BookList[3] = **new** Book("10104", "JSP&Servlet", "img\10104.jpg",0);

//存入session对象中

session.setAttribute("book", BookList);

}

%>

<body>

<br>

<img src=*"img/cart.jpg"* height=*"60px"* width=*"60px"*>

<a href=*"cart.view"*>已采购 本书籍</a><br>

<br>

<table border=*"1"*>

<tr>

<td><img src=*"img/10101.jpg"*></td>

<td><img src=*"img/10102.jpg"*></td>

<td><img src=*"img/10103.jpg"*></td>

<td><img src=*"img/10104.jpg"*></td>

</tr>

<tr>

<td><a href=*"shopping.view?id=10101"*>采购此书</a></td>

<td><a href=*"shopping.view?id=10102"*>采购此书</a></td>

<td><a href=*"shopping.view?id=10103"*>采购此书</a></td>

<td><a href=*"shopping.view?id=10104"*>采购此书</a></td>

</tr>

</body>

</html>

**Shopping2.jsp**

<%@ page language=*"java"* import=*"java.util.\*"* pageEncoding=*"UTF-8"*%>

<%@page import=*"cc.test.vo.\*"* %>

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">

<html>

<head>

<meta http-equiv=*"Content-Type"* content=*"text/html; charset=ISO-8859-1"*>

<title>BookCar</title>

<style>

**table,th,td**

{

border:*1px solid black*;

border-collapse: *collapse*;

}

</style>

</head>

<body>

<br>

<img src=*"img/cart.jpg"* height=*"60px"* width=*"60px"*>

<a >已采购 本书籍</a><br>

<br>

<table>

<%

CBook[] BookCar=(CBook[])session.getAttribute("bookC");

**for** (CBook bookC:BookCar)

{

out.print("<tr>");

out.println("<td>< img src='"+bookC.getBookImg()+"' width='300' height='300'></td>");

out.println("<td align='center'><h1>共"+bookC.getBookNum()+"本</h1></td>");

out.print("</tr>");

}

%>

</table>

</body>

</html>

# 运行效果图



