**Java Web开发**

**实验八**

**作业报告**

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| --- | --- |
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| 完 成 时 间 | 2019年5月 |

# 实验题目

1、（必做）请用模型2MVC模式完成1个功能，功能自选，例如：登录、注册、发帖、计算税收等；

2、（选做）继续完善网上购图书程序，采用MVC模式，完成增加计算商品总价及添加商品数量等功能，用JavaBean改写，其中购物车和商品价格等内容都用JavaBean实现，JSP页面实现增加、删除所选图书，显示所选图书及其价格的功能。尽量用EL表达式或JSTL标签库，少用程序片及表达式。

购物车提示：javaBean：

Book.java：存储一本图书的信息

BookList.java：一条记录，用于记录订单的一条信息(可省略)

CartBook.java：购物车，用于存储用户所有购物信息

JSP：

index.jsp：购图书首页

addbook.jsp:添加一条图书信息至购物车。

delbook.jsp:删除一条图书信息至购物车

showCart.jsp:显示购物车的信息

# 分析与设计

taxRules.java: 税收规则Bean

taxBaen.java: 税收Bean

index.jsp: 收入输入页面

result.jsp: 结果页面

TaxServlet.java: 运算与跳转Servlet

# 关键源码（部分）

1. taxRules.java

**package** entity;  
  
**public class** taxRules **implements** java.io.Serializable {  
 **private float upLimit**;  
 **private float percent**;  
  
 **public** taxRules() {  
 **upLimit** = 0;  
 **percent** = 0;  
 }  
  
 **public** taxRules(**float** upLimit, **float** percent) {  
 **this**.**upLimit** = upLimit;  
 **this**.**percent** = percent;  
 }  
  
 **public float** getUpLimit() {  
 **return upLimit**;  
 }  
  
 **public void** setUpLimit(**float** upLimit) {  
 **this**.**upLimit** = upLimit;  
 }  
  
 **public float** getPercent() {  
 **return percent**;  
 }  
  
 **public void** setPercent(**float** percent) {  
 **this**.**percent** = percent;  
 }  
}

1. taxBaen.java

**package** entity;  
  
**import** java.util.ArrayList;  
  
**public class** TaxBean **implements** java.io.Serializable {  
 **private float income**;  
 **private float taxValue**;  
  
 **public** TaxBean() {  
 **income** = 0;  
 }  
  
 **public** TaxBean(**float** income) {  
 **this**.**income** = income;  
 }  
  
 **public float** getIncome() {  
 **return income**;  
 }  
  
 **public void** setIncome(**float** income) {  
 **this**.**income** = income;  
 }  
  
 **public float** getTaxValue() {  
 **return taxValue**;  
 }  
  
 **public void** setTaxValue(**float** taxValue) {  
 **this**.**taxValue** = taxValue;  
 }  
}

1. TaxServlet.java

**package** Controller;  
  
**import** entity.TaxBean;  
**import** entity.TaxRules;  
  
**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** java.io.IOException;  
**import** java.util.ArrayList;  
  
@WebServlet(**"/TaxServlet.do"**)  
**public class** TaxServlet **extends** HttpServlet {  
  
 **protected void** doPost(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {  
 initTaxRules(request);  
 ArrayList<TaxRules> rules = (ArrayList<TaxRules>) request.getSession().getAttribute(**"taxRules"**);  
 String incomeStr = request.getParameter(**"income"**);  
 **float** income = Float.*valueOf*(incomeStr);  
 **if** (incomeStr == **null**) {  
 response.sendRedirect(**"index.jsp"**);  
 **return**;  
 }  
 TaxBean tax = (TaxBean) request.getSession().getAttribute(**"tax"**);  
 **if** (tax == **null**) {  
 tax = **new** TaxBean();  
 }  
 tax.setIncome(income);  
 tax.setTaxValue(calcTax(rules, income));  
 request.getSession().setAttribute(**"tax"**, tax);  
 response.sendRedirect(**"result.jsp"**);  
 }  
  
 **protected void** doGet(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {  
 doPost(request, response);  
 }  
  
 **void** initTaxRules(HttpServletRequest request) {  
 ArrayList<TaxRules> rules = (ArrayList<TaxRules>) request.getSession().getAttribute(**"taxRules"**);  
 **if** (rules == **null**) {  
 rules = **new** ArrayList<TaxRules>();  
 rules.add(**new** TaxRules(1600, 0));  
 rules.add(**new** TaxRules(1600 + 500, 5));  
 rules.add(**new** TaxRules(1600 + 3000, 10));  
 rules.add(**new** TaxRules(1600 + 5000, 15));  
 rules.add(**new** TaxRules(1600 + 20000, 20));  
 rules.add(**new** TaxRules(1600 + 40000, 25));  
 rules.add(**new** TaxRules(1600 + 60000, 30));  
 rules.add(**new** TaxRules(1600 + 80000, 35));  
 rules.add(**new** TaxRules(1600 + 100000, 40));  
 rules.add(**new** TaxRules(Float.***POSITIVE\_INFINITY***, 40));  
 request.getSession().setAttribute(**"taxRules"**, rules);  
 }  
 }  
  
 **float** calcTax(ArrayList<TaxRules> rules, **float** money) {  
 **float** value = 0;  
 **float** prevUpLimit = 0;  
 **for** (TaxRules rule : rules) {  
 **if** (money > prevUpLimit) {  
 **if** (money >= rule.getUpLimit()) {  
 value += (rule.getUpLimit() - prevUpLimit) \* rule.getPercent() / 100f;  
 prevUpLimit = rule.getUpLimit();  
 } **else** {  
 value += (money - prevUpLimit) \* rule.getPercent() / 100f;  
 **break**;  
 }  
 }  
 }  
 **return** value;  
 }  
}

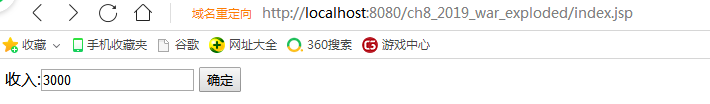
1. index.jsp

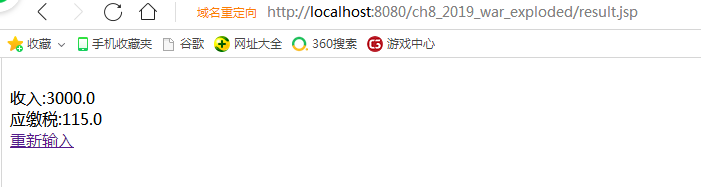
<%@ **page contentType**="**text/html;charset=UTF-8**" **language**="**java**" %>  
<**html**>  
<**head**>  
 <**title**>税务计算</**title**>  
</**head**>  
<**body**>  
<**form method="get" action="TaxServlet.do"**>  
 <**label**>收入:<**input type="text" name="income"**></**label**>  
 <**label**><**input type="submit" value="确定"**></**label**>  
</**form**>  
</**body**>  
</**html**>

1. result.jsp

<%@ **page contentType**="**text/html;charset=UTF-8**" **language**="**java**" %>  
<%@ **taglib uri**="**http://java.sun.com/jsp/jstl/core**" **prefix**="**c**" %>  
<%@ **page import**="**entity.\***" %>  
<**html**>  
<**head**>  
 <**title**>税务计算</**title**>  
</**head**>  
<**body**>  
<**c:if test="${**param.income == **null** && sessionScope.tax == **null}"**>  
 <**jsp:forward page="index.jsp"**/>  
</**c:if**>  
<**jsp:useBean id="tax" class="entity.TaxBean" scope="session"**/>  
<**br**>收入:**${**tax.income**}**<**br**>应缴税:**${**tax.taxValue**}**<**br**><**a href="index.jsp"**>重新输入</**a**>  
</**body**>  
</**html**>

# 运行效果图





# 收获与问题

无。