UNIVERSITI MALAYSIA TERENGGANU

CSM3023 WEB BASED APPLICATION DEVELOPMENT

BACHELOR OF COMPUTER SCIENCE (MOBILE COMPUTING) WITH HONORS

LAB 05

SEMESTER I 2023/2024

Prepared for:

DR MOHAMAD NOR BIN HASSAN

Prepared by:

NUR ATIRAH BINTI SHAMSUDDIN (S67397)

Task 1: Using Scriplet to Access a Simple JavaBeans

```jsp
<%--
    Document    : Message1
    Created on  : 13 May 2024, 19:56:46
    Author      : Nur Atirah S67397
--%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<%@page language="java" %>
<%@page info="Using JSP Standard Action to call JavaBEans" %>
<%@page import="java.util.Date, lab5.com.Message" %>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>Task 1</title>
    </head>
    <body>
        <h1>Using JSP Scriptlet to call JavaBeans</h1>
        <%
            //create an object
            Message objMsg = new Message();

            //asign value..
            objMsg.setMsg("Welcome to CSF3107 course....!");

            //display value..
            out.println("<p>" + objMsg.getMsg() + "</p>");

            //add date..
            out.println("<p>Current date is " + new java.util.Date() + "</p>");
        %>
    </body>
</html>
```

Using JSP Scriptlet to call JavaBeans

Welcome to CSF3107 course....!

Current date is Wed May 15 16:29:25 MYT 2024

Reflection

1. What you have learnt from this exercise?

   ● How to use JavaBeans within a JSP page to manage and encapsulate business logic.
   ● The method of invoking and manipulating JavaBeans using both JSP scriptlets and JSP standard actions.
   ● The importance of separating business logic from presentation logic in web applications

2. Explain the differences when calling JavaBeans using JSP Standard Action and Java Scriptlet.

   ● JSP Scriptlet: Embeds Java code directly within the HTML content of a JSP page using <% %> tags.
   ● JSP Standard Action: Uses XML-like tags (<jsp:useBean>, <jsp:setProperty>, and <jsp:getProperty>) to interact with JavaBeans.

Task 2: Problem Solving using JavaBeans

registerTraining.jsp

```jsp
<%--
    Document    : registerTraining
    Created on  : 13 May 2024, 20:27:21
    Author      : Nur Atirah S67397
--%>
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Task 2</title>
    <style>
        label {
            display: inline-block;
            width: 150px;
            margin-right: 10px;
        }

        #name {
            width: 400px;
        }

        #pax {
            width: 200px;
        }

    </style>
</head>
<body>
```

```jsp
</head>
<body>
<h1>Register IT Training</h1>
<form action="processTraining.jsp" method="post"> <!-- Changed action and method attributes -->
    <fieldset>
        <legend>Training Registration</legend>
        <label for="icno">IC No</label> <input type="text" id="icno" name="icno" placeholder="E.g. : 911210-05-1234"> <br><br>
        <label for="name">Name</label> <input type="text" id="name" name="name" placeholder="Enter your name"> <br><br>
        <label for="training_type">Type of Training</label>
        <select id="training_type" name="training_type">
            <option value="1">C++</option>
            <option value="2">Java</option>
            <option value="3">HTML5</option>
            <option value="4">Java EEE</option>
            <option value="5">Android Programming</option>
        </select> <br><br>
        <label for="pax">No of Pax</label> <input type="number" id="pax" name="pax" placeholder="No of pax"> <br><br>
        <label>Student</label>
        <input type="radio" id="yes" name="student" value="1"> <label for="yes">Yes</label>
        <input type="radio" id="no" name="student" value="0"> <label for="no">No</label>

        <br><br>
        <input type="submit" value="Submit"> <input type="reset" value="Cancel">
    </fieldset>
</form>
<p><b>&copy; 2024 - Nur Atirah</b></p>
</body>
</html>
```

processTraining.jsp

```jsp
<%--
    Document   : processTraining
    Created on : 13 May 2024, 21:07:58
    Author     : Nur Atirah S67397
--%>
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Task 2</title>
    <style>
        p{
            color: blue;
        }
    </style>
</head>
    <body>
        <%
            String icNo = request.getParameter("icno");
            String Name = request.getParameter("name");

            String train_type = request.getParameter("training_type");
            String trainingType = "";
            double price = 0.0;
            if (train_type != null && !train_type.isEmpty()) {
                switch (train_type){
                    case "1":
                        trainingType = "C++";
                        price = 3000;
                        break;
                    case "2":
                        trainingType = "Java";
                        price = 3000;
                        break;
                    case "3":
                        trainingType = "HTML5";
                        price = 2800;
                        break;
                    case "4":
                        trainingType = "Java EEE";
                        price = 5500;
                        break;
                    case "5":
                        trainingType = "Android Programming";
                        price = 3200;
                        break;
                }
            }

            int paxNum = Integer.parseInt(request.getParameter("pax"));

            String student = request.getParameter("student");
            String is_student = "";
            double discount = 0.0;
            if (student != null && !student.isEmpty()) {
                switch (student){
                    case "1":
                        is_student = "Yes";
                        discount = 0.10;
                        break;
                    case "0":
                        is_student = "No";
                        discount = 0.0;
                        break;
                }
            }

            double amount;
            double discount_price = price * discount;
            amount = (price - discount_price) * paxNum;
        %>
```

```
        <h1>Training Registration Acknowledgement</h1>
        <p>IC No : <%=icNo %></p>
        <p>Name : <%=Name %></p>
        <p>Type of Training : <%=trainingType %> </p>
        <p>Number of Pax : <%=paxNum %> person/s </p>
        <p>Student : <%=is_student %></p>
        <p>Amount Due : RM<%=amount %></p>
    </body>
</html>
```

Output:

Register IT Training

Training Registration
IC No   E.g. : 911210-05-1234

Name   Enter your name

Type of Training C++

No of Pax   No of pax

Student   ◯ Yes   ◯ No

[Submit] [Cancel]

© 2024 - Nur Atirah

Training Registration Acknowledgement

IC No : 031130-06-0602

Name : NUR ATIRAH BINTI SHAMSUDDIN

Type of Training : C++

Number of Pax : 3 person/s

Student : Yes

Amount Due : RM8100.0

Reflection

1. What you have learnt from this exercise?
   I learned to create a web form using HTML and process its data in a JSP page to calculate and display training cost dynamically.

2. Describe the steps how you construct Register JavaBeans?
   - Define a Java class with private properties for form data.
   - Create public methods (getters and setters) to access and set these properties.
   - Add any necessary methods for business logic.
   - Use JSP tags to instantiate the JavaBean, set its properties, and retrieve values for display.

Task 3: Installing JSTL Taglibs

```xml
<dependencies>
    <dependency>
        <groupId>jakarta.platform</groupId>
        <artifactId>jakarta.jakartaee-api</artifactId>
        <version>${jakartaee}</version>
        <scope>provided</scope>
    </dependency>
    <dependency>
        <groupId>jakarta.servlet</groupId>
        <artifactId>jakarta.servlet-api</artifactId>
        <version>6.0.0</version>
        <scope>provided</scope>
    </dependency>
    <dependency>
        <groupId>jakarta.servlet.jsp.jstl</groupId>
        <artifactId>jakarta.servlet.jsp.jstl-api</artifactId>
        <version>3.0.0</version>
    </dependency>
    <dependency>
        <groupId>org.glassfish.web</groupId>
        <artifactId>jakarta.servlet.jsp.jstl</artifactId>
        <version>3.0.1</version>
    </dependency>
</dependencies>
```

Task 4: Using Java Standard Tag Library (JSTL)

jstlFormat1.jsp

```jsp
<%--
    Document    : jstlFormat1
    Created on  : 14 May 2024, 01:40:52
    Author      : Nur Atirah S673997
--%>

<%@ page contentType="text/html; charset=UTF-8" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/fmt" prefix="fmt" %>

<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>jstlFormat1</title>
    </head>
    <body>
        <h1>Using JSTL formatting tag for formatting</h1>
        <c:set var="total" value="2880.4638"/>
        <p>Number to be formatted is <c:out value="${total}"/></p>
        <p>Formatting number as currency with currency code: <fmt:formatNumber type="currency" currencyCode="MYR" value="${total}"/></p>
        <p>Formatting number to the nearest 2 integer digits: <fmt:formatNumber type="number" maxIntegerDigits="2" value="${total}"/></p>
        <p>Formatting number by grouping: <fmt:formatNumber type="number" groupingUsed="true" value="${total}"/></p>
        <p>Formatting number to 3 decimal places: <fmt:formatNumber type="number" minFractionDigits="3" maxFractionDigits="3" value="${total}"/></p>
        <p>Formatting number as percentage: <fmt:formatNumber type="percent" value="${total}"/></p>
    </body>
</html>
```

Output:

Using JSTL formatting tag for formatting

Number to be formatted is 2880.4638

Formatting number as currency with currency code: MYR2,880.46

Formatting number to the nearest 2 integer digits: 80.464

Formatting number by grouping: 2,880.464

Formatting number to 3 decimal places: 2,880.464

Formatting number as percentage: 288,046%

userRegistration.html

```html
<!DOCTYPE html>
<!--
Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
Click nbfs://nbhost/SystemFileSystem/Templates/JSP Servlet/Html.html to edit this template
-->
<html>
    <head>
        <title>Task 4.2</title>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <style>
            label {
                display: inline-block;
                width: 150px;
                margin-right: 10px;
            }
            #name,#surname{
                width: 400px;
            }
        </style>
    </head>
    <body>
        <form action="processUser.jsp" method="post">
            <fieldset>
                <legend>User Details</legend>

                <label for="firstname">Name</label>
                <input type="text" id="firstname" name="firstname" placeholder="Enter firstname"> <br><br>

                <label for="surname">Surname</label>
                <input type="text" id="surname" name="surname" placeholder="Enter surname"> <br><br>

                <label for="pswrd">Password</label>
                <input type="password" id="pswrd" name="pswrd" placeholder="Max 10 characters"> <br><br>

                <label>Gender</label>
                <input type="radio" id="male" name="gender" value="Male"> <label for="male">Male</label>
                <input type="radio" id="female" name="gender" value="Female"> <label for="female">Female</label><br><br>

                <label for="user">Type of User</label>
                <select id="user" name="user">
                    <option value="Beginner">Beginner</option>
                    <option value="Intermediate">Intermediate</option>
                    <option value="Advanced">Advanced</option>
                </select> <br><br>

                <label>Prefer Language</label>

                <input type="checkbox" id="lang1" name="language" value="Malay">
                <label for="lang1">Malay</label>
                <input type="checkbox" id="lang2" name="language" value="English">
                <label for="lang2">English</label>
                <input type="checkbox" id="lang3" name="language" value="Mandarin">
                <label for="lang3">Mandarin</label>
                <input type="checkbox" id="lang4" name="language" value="Tamil">
                <label for="lang4">Tamil</label>

                <br><br>
                <input type="submit" value="Submit"> <input type="reset" value="Cancel">
            </fieldset>
        </form>
        <p><b>&copy; 2024 - Nur Atirah</b></p>
        <script>
            function myFunction() {
                var x = document.getElementById("pswrd");
                if (x.type === "password") {
                    x.type = "text";
                } else {
                    x.type = "password";
                }
            }
        </script>
    </body>
</html>
```
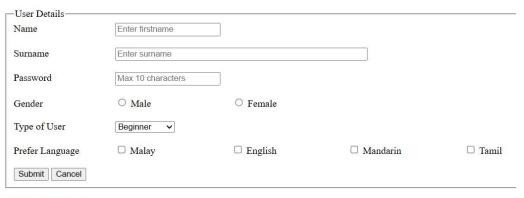
processUser.jsp

```jsp
     Author      : Nur Atirah 367397
--%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>Task 4.2</title>
        <style>
            p{
                color: green;
            }
        </style>
    </head>
    <body>
        <h1>Retrieve info using c:param & display it using c:out</h1>
        <c:set var="fName" value="${param.firstname}"/>
        <c:set var="sName" value="${param.surname}"/>
        <c:set var="userGender" value="${param.gender}"/>
        <c:set var="userType" value="${param.user}"/>
        <c:set var="userLanguage" value="${param.language}"/>
        <c:url var="processUrl" value="processUser.jsp">
            <c:param name="firstname" value="${fName}" />
            <c:param name="surname" value="${sName}" />
            <c:param name="gender" value="${userGender}" />
            <c:param name="user" value="${userType}" />
            <c:param name="language" value="${userLanguage}" />
        </c:url>
        <p>First Name : <c:out value="${param.firstname}"/></p>
        <p>Surname : <c:out value="${param.surname}"/></p>
        <p>Gender : <c:out value="${param.gender}" /></p>
        <p>Type of User : <c:out value="${param.user}"/></p>
        <p>Prefer Language : <c:out value="${param.language}"/></p>
    </body>
</html>
```

Output:

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Retrieve info using c:param & display it using c:out

First Name : rah

Surname : irah

Gender : Female

Type of User : Beginner

Prefer Language : English

jstlFormat1.jsp

```
   Document    : jstlFormat1
   Created on : 14 May 2024, 01:40:52
   Author     : Nur Atirah S673997
%>

@ page contentType="text/html; charset=UTF-8" %>
@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
@ taglib uri="http://java.sun.com/jsp/jstl/fmt" prefix="fmt" %>

DOCTYPE html>
tml>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>jstlFormat1</title>
    </head>
    <body>
        <h1>Using JSTL formatting tag for formatting</h1>
        <c:set var="total" value="2880.4638"/>
        <p>Number to be formatted is <c:out value="${total}"/></p>
        <p>Formatting number as currency with currency code: <fmt:formatNumber type="currency" currencyCode="MYR" value="${total}"/></p>
        <p>Formatting number to the nearest 2 integer digits: <fmt:formatNumber type="number" maxIntegerDigits="2" value="${total}"/></p>
        <p>Formatting number by grouping: <fmt:formatNumber type="number" groupingUsed="true" value="${total}"/></p>
        <p>Formatting number to 3 decimal places: <fmt:formatNumber type="number" minFractionDigits="3" maxFractionDigits="3" value="${total}"/></p>
        <p>Formatting number as percentage: <fmt:formatNumber type="percent" value="${total}"/></p>
    </body>
html>
```

Using JSTL formatting tag for formatting

Number to be formatted is 2880.4638

Formatting number as currency with currency code: MYR2,880.46

Formatting number to the nearest 2 integer digits: 80.464

Formatting number by grouping: 2,880.464

Formatting number to 3 decimal places: 2,880.464

Formatting number as percentage: 288,046%

Reflection

1. What the purpose of using JSTL's tag library?

JSTL (JavaServer Pages Standard Tag Library) simplifies JSP development by providing tags for common tasks like loops, conditionals, formatting, and database access. It reduces the need for embedded Java code (scriptlets), making JSP pages cleaner and easier to maintain.

2. List FIVE(5) categories of JSTL library.
- Core Tags (<c:>): Basic functionalities like loops, conditionals, variables, and URL management.
- Formatting Tags (<fmt:>): Format dates, numbers, and messages according to locale.
- SQL Tags (<sql:>): Execute SQL queries directly within JSP pages.
- XML Tags (<x:>): Parse, transform, and create XML documents.
- Functions Tags (<fn:>): Utility functions for string manipulation, collection operations, etc

Task 5: Using JSP Standard Tag Library

fmt_formatDate.jsp

```
    Author    : Nur Atirah S67397
--%>
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<%@taglib uri="http://java.sun.com/jsp/jstl/fmt" prefix="fmt" %>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>Use fmt_formatDate features</title>
    </head>
    <body>
        <h1>fmt:parseDate features</h1>

        <c:set var="now" value="<%=new java.util.Date()%>"/>
        <p>Time (fmt:formatDate type="time"):
            <strong><fmt:formatDate type="time" value="${now}"/></strong>
        </p>
        <p>date (fmt:formatDate type="date"):
            <strong><fmt:formatDate type="date" value="${now}"/></strong>
        </p>
        <p>Date, Time Short (fmt:formatDate type="both" dateStyle="short"):
            <strong><fmt:formatDate type="both" dateStyle="short" timeStyle="short" value="${now}"/></strong>
        </p>
        <p>Date, Time Medium (fmt:formatDate type="both" dateStyle="medium" timeStyle="medium"):
            <strong> <fmt:formatDate type="both" dateStyle="medium" timeStyle="medium" value="${now}"/> </strong>
        </p>
        <p>Date Time Long (fmt:formatDate type="both" dateStyle="long" timeStyle="long" value="${now}"):
            <strong> <fmt:formatDate type="both" dateStyle="long" timeStyle="long" value="${now}"/> </strong>
        </p>
        <p>Date, Time (dd-MM-yyy HH:mm:ss):
            <strong> <fmt:formatDate pattern="dd-MM-yyy HH:mm:ss" value="${now}"/></strong>
        </p>
        <!-- Store in variable -->
        <fmt:formatDate pattern="dd-MM-yyy HH:mm" value="${now}" var="nowString"/>
        <p> Now String (dd-MM-yyy HH:mm):
            <strong> <c:out value="${nowString}"/> </strong></p>
```

fmt:parseDate features

Time (fmt:formatDate type="time"): **5:01:57 PM**

date (fmt:formatDate type="date"): **May 15, 2024**

Date, Time Short (fmt:formatDate type="both" dateStyle="short"): **5/15/24, 5:01 PM**

Date, Time Medium (fmt:formatDate type="both" dateStyle="medium" timeStyle="medium"): **May 15, 2024, 5:01:57 PM**

Date Time Long (fmt:formatDate type="both" dateStyle="long" timeStyle="long" value="Wed May 15 17:01:57 MYT 2024"): **May 15, 2024, 5:01:57 PM MYT**

Date, Time (dd-MM-yyy HH:mm:ss): **15-05-2024 17:01:57**

Now String (dd-MM-yyy HH:mm): **15-05-2024 17:01**

fmt_parseDate.jsp

```
 Created on : 14 May 2024, 02:57:22
    Author    : Nur Atirah S67397
--%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<%@taglib uri="http://java.sun.com/jsp/jstl/fmt" prefix="fmt" %>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>JSP Page</title>
    </head>
    <body>

        <c:set var="dateTimeString" value="17-11-2015 11:49"/>
        <h4>
            dateTimeString:
            <c:out value="${dateTimeString}"/>
        </h4>

        <!-- Psrsing a date time string, and store in a variable type of java-->
        <fmt:parseDate value="${dateTimeString}" type="both" var="parsedDateTime" pattern="dd-MM-yyyy HH:mm" />
        <p>
            The date time after parsing:
            <c:out value="${parsedDateTime}"/>
        </p>
        <p>
            Date only (dd-MM-yyyy):
            <fmt:formatDate value="${parsedDateTime}" pattern="dd-MM-yyyy"/>
        </p>
    </body>
</html>
```

dateTimeString: 17-11-2015 11:49

The date time after parsing: Tue Nov 17 11:49:00 MYT 2015

Date only (dd-MM-yyyy): 17-11-2015

Reflection

1. What you have learnt from this exercise?
   How to useJSTL's fmt to parse Dates.

Exercise

1. Write a JSP's form that asks the user to key-in the radius of circle. The program should calculate the area of circle and the perimeter of circle. Finally, use JSTL library to format your result into 3 decimal places.

```html
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Exercise 1</title>
    <style>
        label{
            margin-right: 50px;
        }
    </style>
</head>
<body>
    <h1>Calculate the Area and Perimeter of Circle</h1>
    <form method="post" action="">
        <label for="rad">Radius:</label>
        <input type="number" id="rad" name="rad" placeholder="Key-in the radius" required>
        <br><br>
        <input type="submit" value="Submit">
        <input type="reset" value="Cancel">
    </form>

    <br><br>
    <h1>Result:</h1>
    <%
        String radStr = request.getParameter("rad");
        if (radStr != null && !radStr.isEmpty()) {
            double rad = Double.parseDouble(radStr);
            double area = Math.PI * rad * rad;
            double perimeter = 2 * Math.PI * rad;
    %>
            <p>Radius: <fmt:formatNumber value="<%= rad %>" /></p>
            <p>Area: <fmt:formatNumber value="<%= area %>" /></p>
            <p>Perimeter: <fmt:formatNumber value="<%= perimeter %>" /></p>
    <%
        }
    %>
</body>
</html>
```

Calculate the Area and Perimeter of Circle

Radius: [Key-in the radius]

[Submit] [Cancel]

Result:

Radius: -9

Area: 254.469

Perimeter: -56.549

2. Rahim bought 800 shares of stock at a price of RM10.50 per share. He must pay her stock broker a 5 percent commission for the transaction. Write a web based program that calculates and displays the following:

- The amount paid for the stock alone without the commission.
- The amount of the commission.
- The total amount paid (for the stock plus the commission).

You should use JavaBeans to implement business logic and JSTL for display purposes.

StockTransactionBean.java

```java
public class StockTransactionBean {
  private int shares;
    private double pricePerShare;
    private double commissionRate;

    // Constructor
    public StockTransactionBean() {
        // Default constructor
    }
    // Getters and setters
    public int getShares() {
        return shares;    }
    public void setShares(int shares) {
        this.shares = shares;    }
    public double getPricePerShare() {
        return pricePerShare;    }
    public void setPricePerShare(double pricePerShare) {
        this.pricePerShare = pricePerShare;    }
    public double getCommissionRate() {
        return commissionRate;    }
    public void setCommissionRate(double commissionRate) {
        this.commissionRate = commissionRate;    }
    // Method to calculate the amount paid for the stock alone (without commission)
    public double calculateStockAmount() {
        return shares * pricePerShare;    }
    // Method to calculate the commission amount
    public double calculateCommission() {
        return calculateStockAmount() * (commissionRate / 100);    }
    // Method to calculate the total amount paid (stock amount + commission)
    public double calculateTotalAmount() {
        return calculateStockAmount() + calculateCommission();
    }
}
```

stockTransaction.jsp

```jsp
<%--
    Document    : stockTransaction
    Created on  : 15 May 2024, 15:55:32
    Author      : Nur Atirah s67397
--%>
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/fmt" prefix="fmt" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/functions" prefix="fn" %>
<%@ page import="com.mycompany.lab5.StockTransactionBean" %>
<!DOCTYPE html>
<html>
<head>
    <meta charset="UTF-8">
    <title>Stock Transaction</title>
    <style>
        table {
            width: 50%;
            margin: auto;
            border-collapse: collapse;
        }
        td {
            padding: 8px;
        }
        input[type="number"] {
            width: 100%;
            box-sizing: border-box;
            padding: 8px;
        }
        input[type="submit"] {
            padding: 10px 20px;
            cursor: pointer;
        }
    </style>
</head>
<body>
    <h1 style="text-align: center;">Stock Transaction Calculator</h1>
    <form action="stockTransaction.jsp" method="post">
        <table>
            <tr>
                <td><label for="shares">Enter the number of shares:</label></td>
                <td><input type="number" id="shares" name="shares" required></td>
            </tr>
            <tr>
                <td><label for="price">Enter the price per share (RM):</label></td>
                <td><input type="number" step="0.01" id="price" name="price" required></td>
            </tr>
            <tr>
                <td><label for="commission">Enter the commission rate (%):</label></td>
                <td><input type="number" step="0.01" id="commission" name="commission" required></td>
            </tr>
            <tr>
                <td colspan="2" style="text-align: center;"><input type="submit" value="Calculate"></td>
            </tr>
        </table>
    </form>
```

```jsp
<c:if test="${not empty param.shares and not empty param.price and not empty param.commission}">
    <jsp:useBean id="stockBean" class="com.mycompany.lab5.StockTransactionBean" scope="request" />
    <jsp:setProperty name="stockBean" property="shares" value="${param.shares}" />
    <jsp:setProperty name="stockBean" property="pricePerShare" value="${param.price}" />
    <jsp:setProperty name="stockBean" property="commissionRate" value="${param.commission}" />
    <h2 style="text-align: center;">Transaction Summary:</h2>
    <table>
        <tr>
            <td>Amount paid for stock alone:</td>
            <td>RM <fmt:formatNumber value="${stockBean.calculateStockAmount()}" pattern="0.000"/></td>
        </tr>
        <tr>
            <td>Commission amount:</td>
            <td>RM <fmt:formatNumber value="${stockBean.calculateCommission()}" pattern="0.000"/></td>
        </tr>
        <tr>
            <td>Total amount paid:</td>
            <td>RM <fmt:formatNumber value="${stockBean.calculateTotalAmount()}" pattern="0.000"/></td>
        </tr>
    </table>
</c:if>
</body>
</html>
```

Output:

Stock Transaction Calculator

Enter the number of shares:

Enter the price per share (RM):

Enter the commission rate (%):

Calculate

Stock Transaction Calculator

Enter the number of shares:

Enter the price per share (RM):

Enter the commission rate (%):

Calculate

Transaction Summary:

Amount paid for stock alone:	RM 9900.000
Commission amount:	RM 297.000
Total amount paid:	RM 10197.000