



## **Web based Application Development (CSM3023)**

### **Lab Report 4**

JSP: Scriptlet, Expression & Standard Actions

### **Programme**

Computer Science (Software Engineering)

### **Prepared by**

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### **Matric No**

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## Task 1: Using JSP Scripting

### customer.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>Using JSP Scripting</title>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <script>
    function validateForm() {
      var quantity = document.getElementById("quantity").value;
      if (isNaN(quantity)) {
        alert("Please enter a valid number for quantity.");
        return false;
      }
      return true;
    }
  </script>
</head>
<body>
  <h1>Use JSP Scriplet and JSP Expression in application</h1>

  <h3>Customer Discount</h3>

  <form name="customer discount" id="custdiscount"
    action="processCustomer.jsp" onsubmit="return validateForm()">
    <table>
      <tr>
        <td><label for="customercode">Customer Code</label></td>
        <td><input type="text" id="custcode" name="cust_code" size="15"
placeholder="Key-in customer code"><br/></td>
      </tr>

      <tr>
        <td><label for="Quantity">Quantity</label></td>
        <td><input type="text" id="quantity" name="quantity" size="15"
placeholder="Key-in quantity"><br/></td>
      </tr>
    </table>
  </form>
</body>
</html>
```

```

        </tr>

        <tr>
            <td><label>Customer Type</label></td>
            <td><input type="radio" name="cust_type" value="1" class="radio-
button">Normal Customer</td>
            <td><input type="radio" name="cust_type" value="2" class="radio-
button">Privilege Customer</td>
        </tr>

        <tr>
            <td><input type="submit" id="btnSubmit" value="Submit"/></td>
            <td><input type="reset" id="btnCancel" value="Cancel"/></td>
        </tr>

    </table>
</form>
</body>
</html>

```

## Use JSP Scriptlet and JSP Expression in application

### Customer Discount

Customer Code

Quantity

Customer Type ☐ Normal Customer ☐ Privilege Customer

### processCustomer.jsp

```

<%--
    Document    : processCustomer
    Created on  : 24 Apr 2024, 2:56:06 pm
    Author      : VivoBook
--%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

```

```

        <title>processCustomer</title>
    </head>
    <body>
        <h1>Use JSP Scriptlet and JSP Expression in application</h1>
        <%
            final int price = 10;

            //using JSP Scriptlet
            String cust_code1 = request.getParameter("cust_code");
            int quantity1 = Integer.parseInt(request.getParameter("quantity"));
            String cust_type1 = request.getParameter("cust_type");

            //Determine customer
            if (cust_type1.equals("1") && quantity1 > 100) {
                out.print("You're entitled to 10% discount.<br>");
                out.print("Total amount is RM" + (quantity1 * price * 0.9));
            } else if (cust_type1.equals("2") && quantity1 > 100) {
                out.print("You're entitled to 25% discount.<br>");
                out.print("Total amount is RM" + (quantity1 * price * 0.75));
            } else {
                out.print("You're not entitled to a discount!<br>");
                out.print("Total amount is RM" + (quantity1 * price));
            }
        %>
    </body>
</html>

```

## Use JSP Scriptlet and JSP Expression in application

You're entitled to 25% discount.  
Total amount is RM5250.0

### Reflection

1. What you have learnt from this exercise?

- I learnt how to using java scripting

2. Explain three (3) type of JSP scripting?

- Scriptlets : <% %>

- Declaration : <%! %>

- Expression: <%= %>

## Task 2: Using JSP (Scripting, Declaration and Expression)

### currencyConversion.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>Using JSP Scripting, declaration and Expression</title>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <script>
    function validateForm() {
      var quantity = document.getElementById("amount").value;
      if (isNaN(quantity)) {
        alert("Please enter a valid number for quantity.");
        return false;
      }
      return true;
    }
  </script>

</head>
<body>
  <h1>Use JSP Declaration tag, JSP Scriptlet and JSP Expression in application</h1>

  <h3>Currency Conversion</h3>

  <form          name="currencyconversion"          id="currencyconvert"
action="processCurrency.jsp" onsubmit="return validateForm()">
    <table>
      <tr>
        <td><label for="amount">Amount (in RM)</label></td>
        <td><input type="text" id="amount" name="amount" size="15"
placeholder="in RM"><br/></td>
      </tr>

      <tr>
```

```

        <td><label>Convert to</label></td>
        <td><select name="Convert" class="dropdown-el">
            <option value="1">USD</option>
            <option value="2">STG</option>
            <option value="3">Euro</option>
        </select>
    </tr>

    <tr>
        <td><input type="submit" id="btnSubmit" value="Submit"/></td>
        <td><input type="reset" id="btnCancel" value="Cancel"/></td>
    </tr>

</table>
</form>
</body>
</html>

```

## Use JSP Declaration tag, JSP Scriptlet and JSP Expression in application

### Currency Conversion

Amount (in RM)

Convert to USD ▾

USD  
STG  
Euro

processCurrency.jsp

```

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Process Currency</title>
</head>
<body>
    <h1>Use JSP Declaration tag, JSP Scriptlet and JSP Expression in application</h1>

    <%
        // Define constants
        final double USD = 3.92;
    %>

```

```

final double STG = 5.96;
final double EURO = 4.47;

// Retrieve values from the form
String amountStr = request.getParameter("amount");
int amount = 0; // Default value in case parsing fails

if (amountStr != null && !amountStr.isEmpty()) {
    try {
        amount = Integer.parseInt(amountStr);
    } catch (NumberFormatException e) {
        out.println("Error: Please enter a valid amount.");
    }
} else {
    out.println("Error: Amount cannot be null or empty.");
}

String currency = request.getParameter("Convert");

// Perform currency conversion
double result = 0.00;

if (currency != null) {
    if (currency.equals("1")) {
        result = amount * USD;
    } else if (currency.equals("2")) {
        result = amount * STG;
    } else if (currency.equals("3")) {
        result = amount * EURO;
    }
} else {
    // You might want to display an error message to the user
    out.println("Error: Currency selection cannot be null.");
}
%>

```

```

<h3>Currency Conversion Result</h3>
<p>Amount in RM: RM <%= amount %></p>
<p>Converted to:
    <%
        if (currency != null) {
            if (currency.equals("1")) {
                out.print("USD");
            } else if (currency.equals("2")) {

```

```
        out.print("STG");
    } else if (currency.equals("3")) {
        out.print("Euro");
    }
    } else {
        out.print("Error: Currency selection cannot be null.");
    }
    %>
</p>
<p>Result: <%= result %></p>
</body>
</html>
```

## Use JSP Declaration tag, JSP Scriptlet and JSP Expression in application

### Currency Conversion Result

Amount: RM 30

Converted to: STG

Result: 178.8

### Reflection

1. What have you learn from this exercise?
  - I learnt how to use JSP Declaration tag, JSP Scriptlet, and JSP Expression in application.



### Task 3: Using JSP Standard Action (Include and Param)

#### jspParameter.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Using JSP Standard Action</title>
  </head>
  <body>
    <h1>Using jsp: include and jsp: param to display information on JSP page</h1>
    <%
      String sCode = "CSF3107";
      String sSubject = "Web Programming 2";
      String sCredit = "3(2+1)";
    %>

    <!--Call subjectInfo.jsp page & passing course information to respective
parameters -->
    <jsp:include page="subjectInfo.jsp" flush="true">
      <jsp:param name="code" value="<%sCode%>" />
      <jsp:param name="subject" value="<%sSubject%>" />
      <jsp:param name="credit" value="<%sCredit%>" />
    </jsp:include>
  </body>
</html>
```

#### subjectInfo.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Using JSP Standard Action</title>
  </head>
  <body>
    <h1>Calling subjectInfo.jsp page</h1>
    <p>Code = <%=request.getParameter("code")%></p>
    <p>Subject = <%=request.getParameter("subject"%>)</p>
    <p>Credit = <%=request.getParameter("credit"%>)</p>
  </body>
```

</html>

## Using jsp: include and jsp: param to display information on JSP page

### Calling subjectInfo.jsp page

Code = CSF3107

Subject = Web Programming 2

Credit = 3(2+1)

### Reflection

1. What you have learnt from this exercise?
  - I learnt how to display information on JSP Page using jsp include and jsp param
2. List TWO (2) other JSP Standard Action Tag.
  - <jsp:include>
  - <jsp:forward>

#### Task 4: Using Standard Action (Forward)

##### forward.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Using JSP Standard Action (forward)</title>
  </head>
  <body>
    <h2>Using jsp: forward to display user info</h2>\

    <jsp:forward page="forwardInfo.jsp">
      <jsp:param name="U_name" value="NURSyaza Amira"/>
      <jsp:param name="Email" value="nursyazaamira77@gmail.com"/>
      <jsp:param name="Nationality" value="Malaysia"/>
      <jsp:param name="Background" value="Developer"/>
    </jsp:forward>
  </body>
</html>
```

##### forwardInfo.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>&it;Forwarded Action Example in JSP &Gt;</title>
  </head>
  <body>
    <% String name = request.getParameter("U_name"); %>
    <% String Email = request.getParameter("Email"); %>
    <% String Nationality = request.getParameter("Nationality"); %>
    <% String Background = request.getParameter("Background"); %>
    <% if (name != null) {%>
      <b><br><br><h2 align="center">

        <%=name%><br><!-- comment -->
        <%=Email%><br><!-- comment -->
        <%=Nationality%><br>
        <%=Background%><br><br>
```

```
<% out.print("Today is:" +  
java.util.Calendar.getInstance().getTime());%>
```

```
</h2><b><br><!-- comment -->  
<%}%>
```

```
</body>  
</html>
```



## Reflection

1. What you have learnt from this exercise?
  - I learnt how to use standard action.
2. List TWO(2) More JSP Standard Action Tag
  - jsp:include
  - jsp:param

## Task 5: Use Java Scriptlet To Construct Business Logic

### insuranceQuotation.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Insurance Quotation</title>
  </head>
  <body>
    <h1>Insurance Quotation</h1>

    <form id="insuranceFrm" action="processInsuranceQuo.jsp" method="post">
      <fieldset>
        <legend>Insurance Calculation</legend>
        <label for="ICno">Ic No*</label>
        <input type="text" id="icno" name="my_icno" size="15" placeholder="E.g.
010707101390"><br/>

        <label for="name">Name*</label>
        <input type="text" id="name" name="my_name" size="45"
placeholder="Enter your name"><br/>

        <label for="MarketPrice">Market Price*</label>
        <input type="text" id="marketPrice" name="market_price" size="45"
placeholder="Price"><br/>

        <label for="NCD">No claim discount (NCD)</label>
        <select id="ncd" name="Noclaimdiscount" required>
          <option value="10">10%</option>
          <option value="25">25%</option>
          <option value="35">35%</option>
          <option value="55">55%</option>
        </select>

        <p><input type="submit" id="btnSubmit" value="Submit"/>
          <input type="reset" id="btnCancel" value="Cancel"/>
        </p>
      </fieldset>
    </form>
  </body>
</html>
```

# Insurance Quotation

## Insurance Calculation

Ic No\*

Name\*

Market Price\*

No claim discount (NCD)

10%  
25%  
35%  
55%

[processInsuranceQuo.jsp](#)

## Exercise

calculateBMi.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Calculate BMI</title>
  </head>
  <body>
    <h1>BMI Calculation</h1>

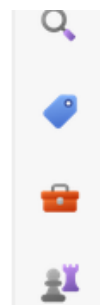
    <form action="action">
      <table>
        <tr>
          <td><label for="weight">Weight</label></td>
          <td><input type="text" id="weight" name="Weight" size="15"
placeholder="Key-in your wight in kg"><br/></td>
        </tr>

        <tr>
          <td><label for="height">Height</label></td>
          <td><input type="text" id="height" name="Height" size="15"
placeholder="Key-in height in meter"><br/></td>
        </tr>

        <tr>
          <td><input type="submit" id="btnSubmit" value="Submit"/></td>
          <td><input type="reset" id="btnCancel" value="Cancel"/></td>
        </tr>
      </table>
    </form>
  </body>
</html>
```

# BMI Calculation

Weight	<input type="text" value="Key-in your wight in kg"/>
Height	<input type="text" value="Key-in height in meter"/>
<input type="button" value="Submit"/>	<input type="button" value="Cancel"/>



## processBMCalculation.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Calculate BMI</title>
  </head>
  <body>
    <h1>BMI Calculation</h1>

    <form action="processBMCalculation.jsp" method="get">
      <table>
        <tr>
          <td><label for="weight">Weight</label></td>
          <td><input type="text" id="weight" name="Weight" size="15"
placeholder="Key-in your wight in kg"><br/></td>
        </tr>

        <tr>
          <td><label for="height">Height</label></td>
          <td><input type="text" id="height" name="Height" size="15"
placeholder="Key-in height in meter"><br/></td>
        </tr>

        <tr>
          <td><input type="submit" id="btnSubmit" value="Submit"/></td>
          <td><input type="reset" id="btnCancel" value="Cancel"/></td>
        </tr>
      </table>
    </form>
  </body>
</html>
```

## BMI Calculation Result

Your BMI: 53.42222222222224

Weight Status: Overweight

