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MATRIC NO:

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LAB:

1

SUBJECT NAME:

CSE3023-WEB BASED APPLICATION

LECTURER NAME:

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LAB MODERATOR:

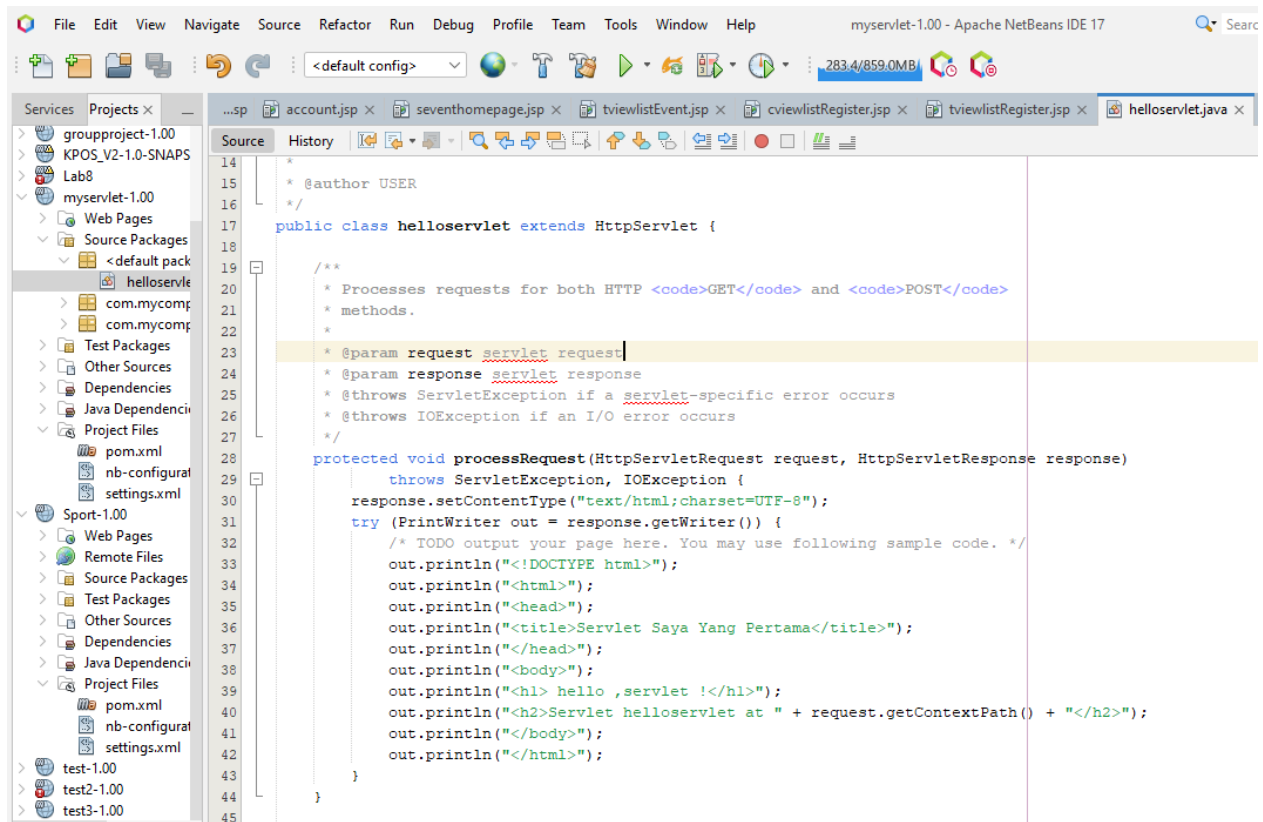
SIR ARIZAL SHAMSIL

TASK 5

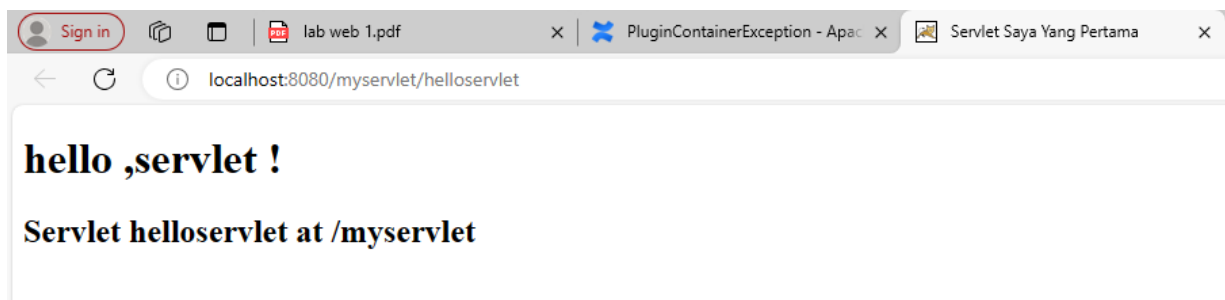
Change the title to **Servlet Saya Yang Pertama**

Add **hello ,servlet !** words at line 40

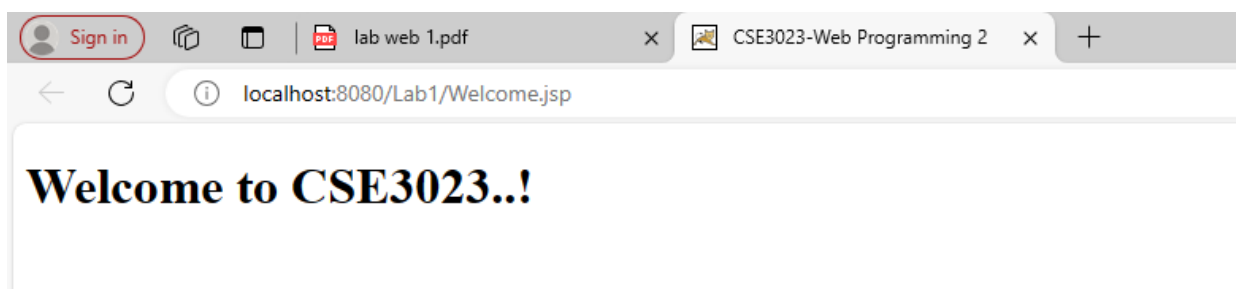
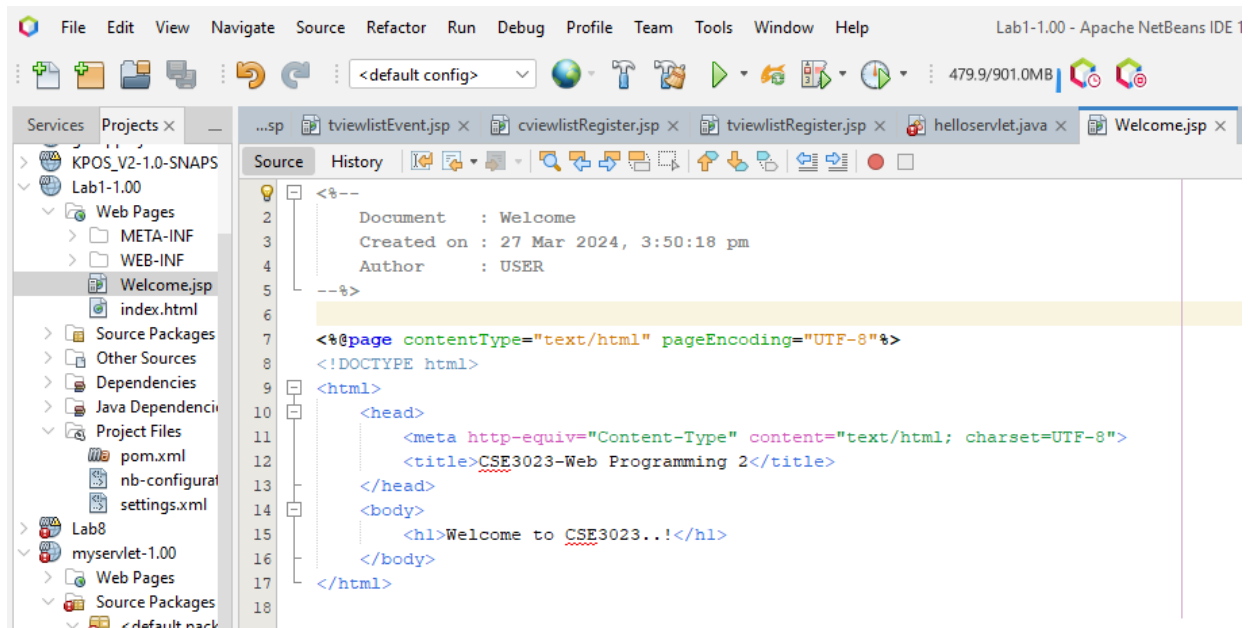
Change the header size to **<h2>**



Output for class hello servlet



TASK 6



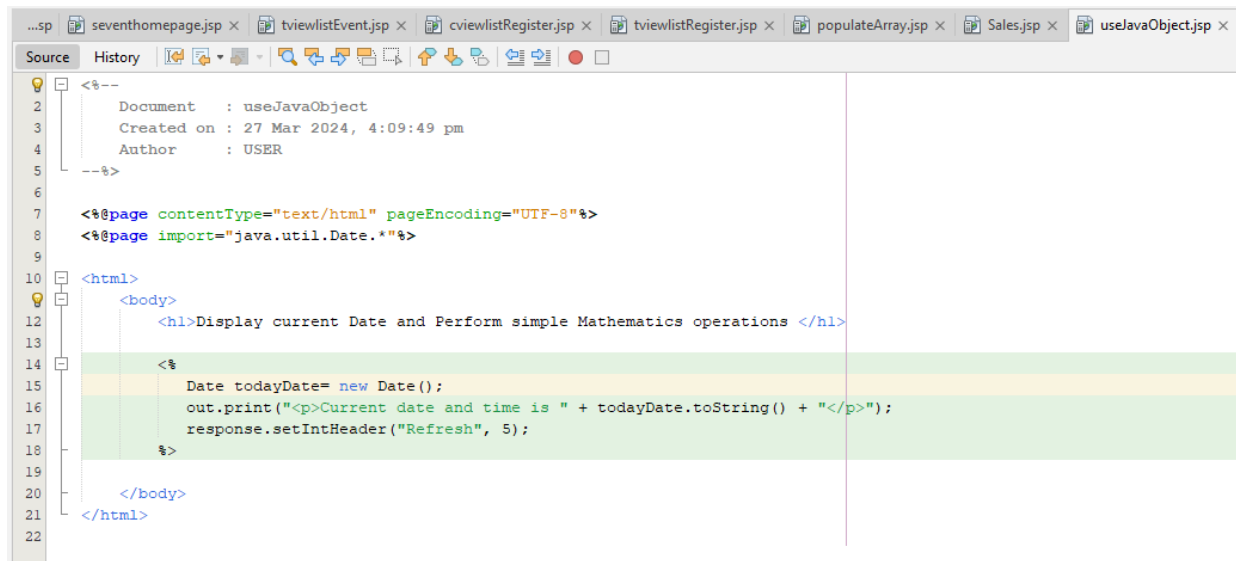
REFLECTION

-what I learn from this exercise is creating and call the servlet by their path.

-When a client requests a JSP page, the web server sends the request to the JSP container

-jsp separates the presentation and business logic, making it easier to maintain and update the code.servlet allow code to can be called from multiple sources.

TASK 7



```
1 <!--
2 Document : useJavaObject
3 Created on : 27 Mar 2024, 4:09:49 pm
4 Author : USER
5 -->
6
7 <%@page contentType="text/html" pageEncoding="UTF-8"%>
8 <%@page import="java.util.Date.*"%>
9
10 <html>
11 <body>
12 <h1>Display current Date and Perform simple Mathematics operations </h1>
13
14 <%
15 Date todayDate= new Date();
16 out.print("<p>Current date and time is " + todayDate.toString() + "</p>");
17 response.setHeader("Refresh", 5);
18 %>
19
20 </body>
21 </html>
22
```

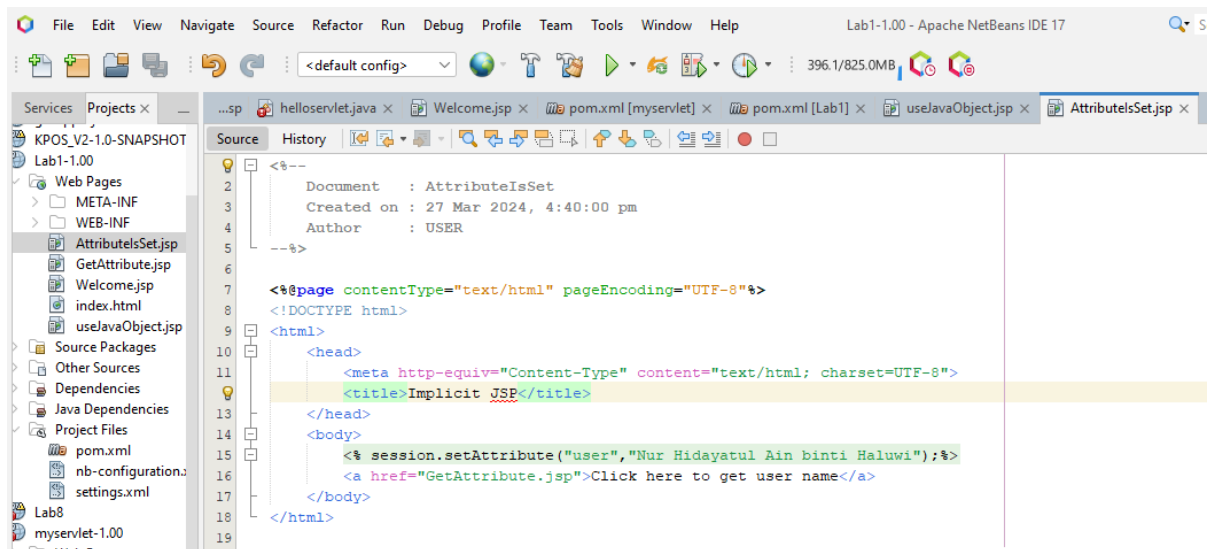
-I have learn how to display the current date by importing java util package

- Java scriptlet is a piece of Java code that is embedded in a JSP file.it used to execute Java code that performs a specific function. Java scriptlets are enclosed in `<%` and `%>` tags

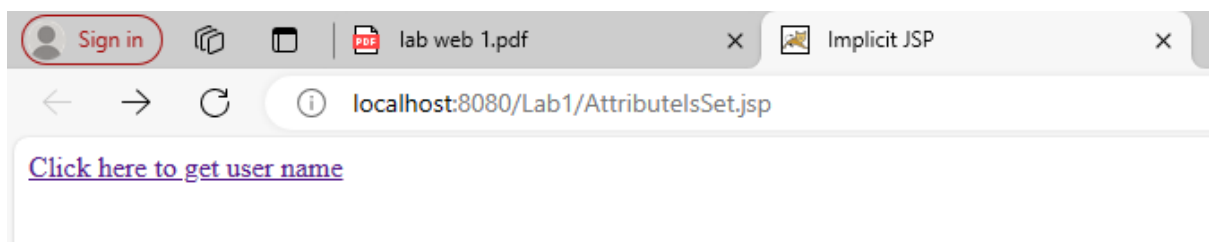
-to use java code in jsp file is we can use jsp scripting elements such as jsp scriptlets.

TASK 8

code for AttributelsSet.jsp

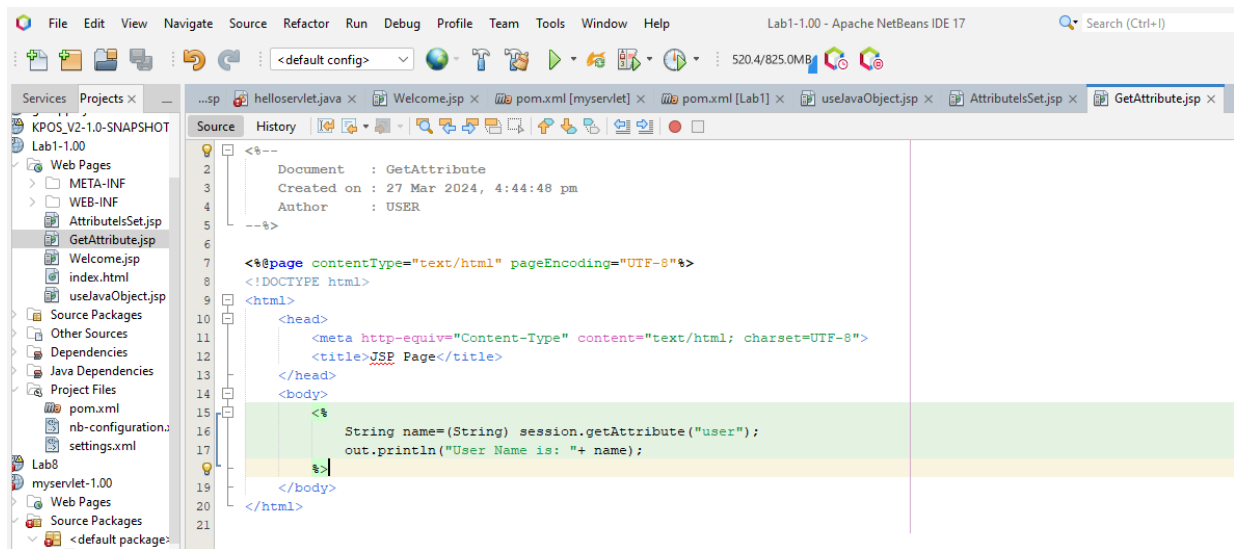


Output for AttributeIsSet.jsp

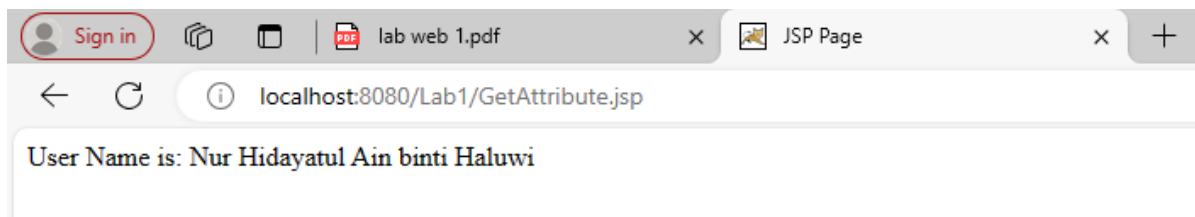


After click the link in picture above, it will redirect to GetAttribute.jsp file.

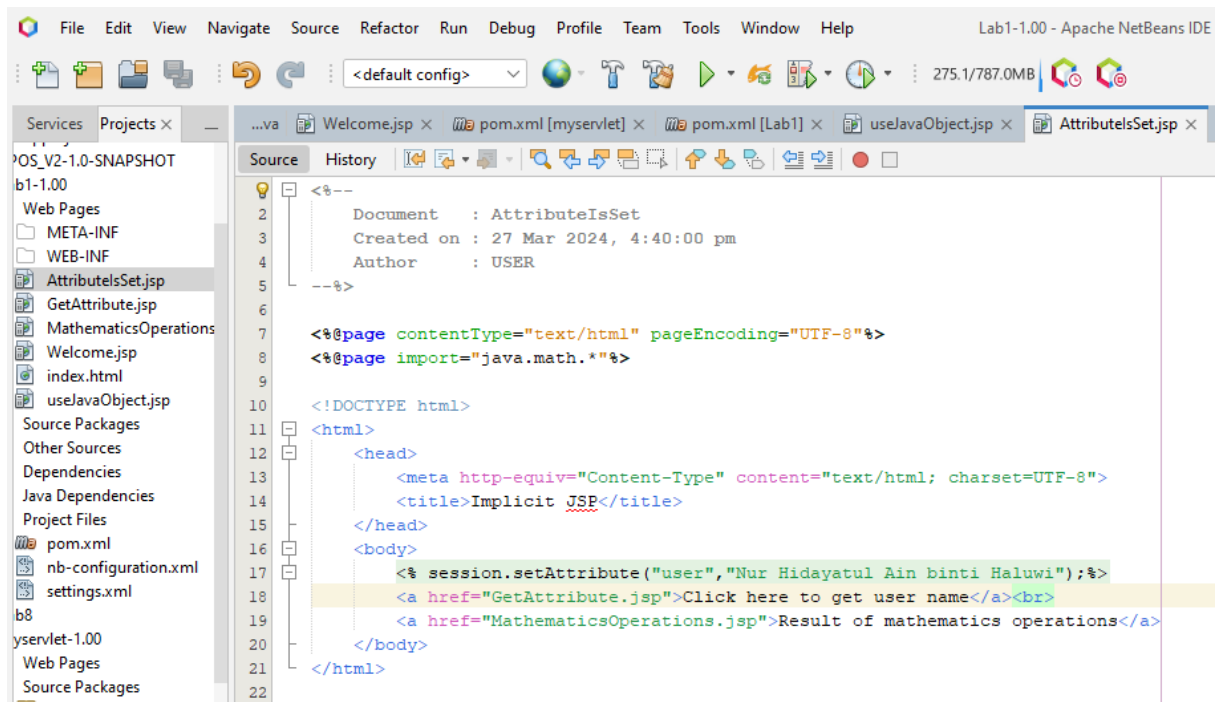
code for GetAttribute.jsp file



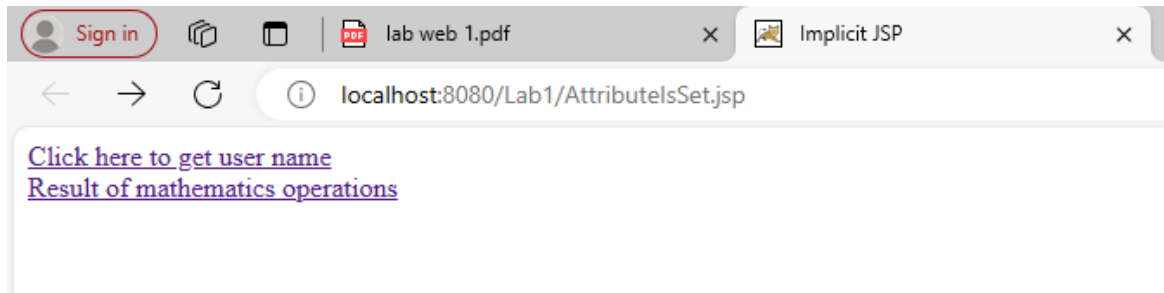
the output from GetAttribute.jsp file



Latest code for AttributelsSet.jsp to add a new link

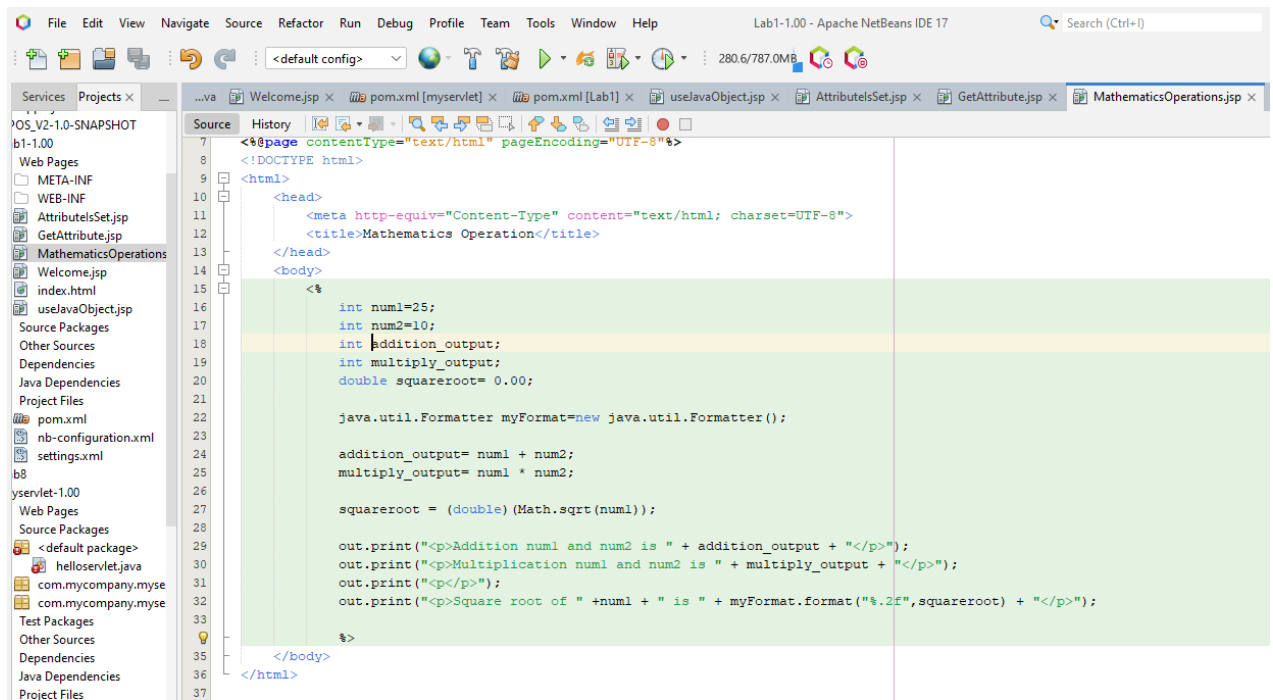


New output for AttributelsSet.jsp



When click the link “Result of mathematic operations” it will redirect to MathematicOperations.jsp file

Code for MathematicOperations.jsp file



```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>Mathematics Operation</title>
</head>
<body>
<%
    int num1=25;
    int num2=10;
    int addition_output;
    int multiply_output;
    double squareroot= 0.00;

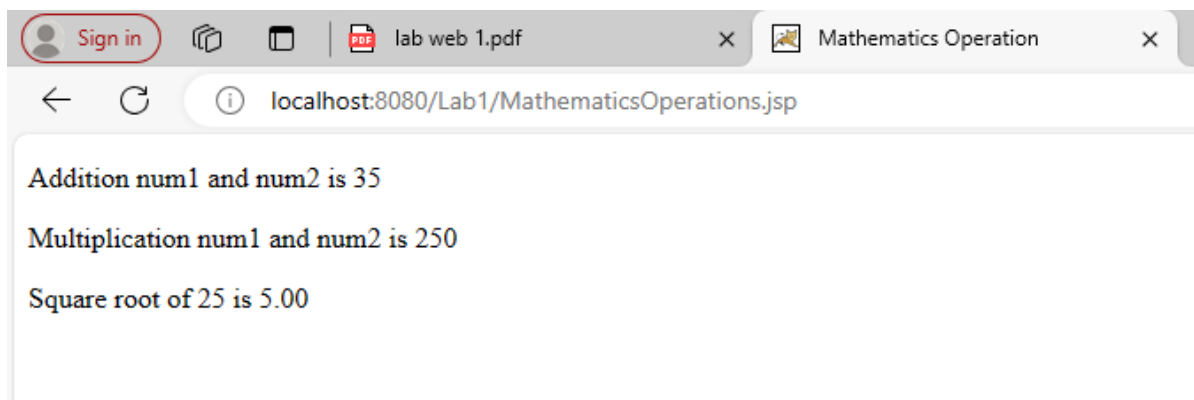
    java.util.Formatter myFormat=new java.util.Formatter();

    addition_output= num1 + num2;
    multiply_output= num1 * num2;

    squareroot = (double) (Math.sqrt(num1));

    out.print("<p>Addition num1 and num2 is " + addition_output + "</p>");
    out.print("<p>Multiplication num1 and num2 is " + multiply_output + "</p>");
    out.print("<p></p>");
    out.print("<p>Square root of " +num1 + " is " + myFormat.format("%.2F",squareroot) + "</p>");
%>
</body>
</html>
```

Output from MathematicOperations.jsp file

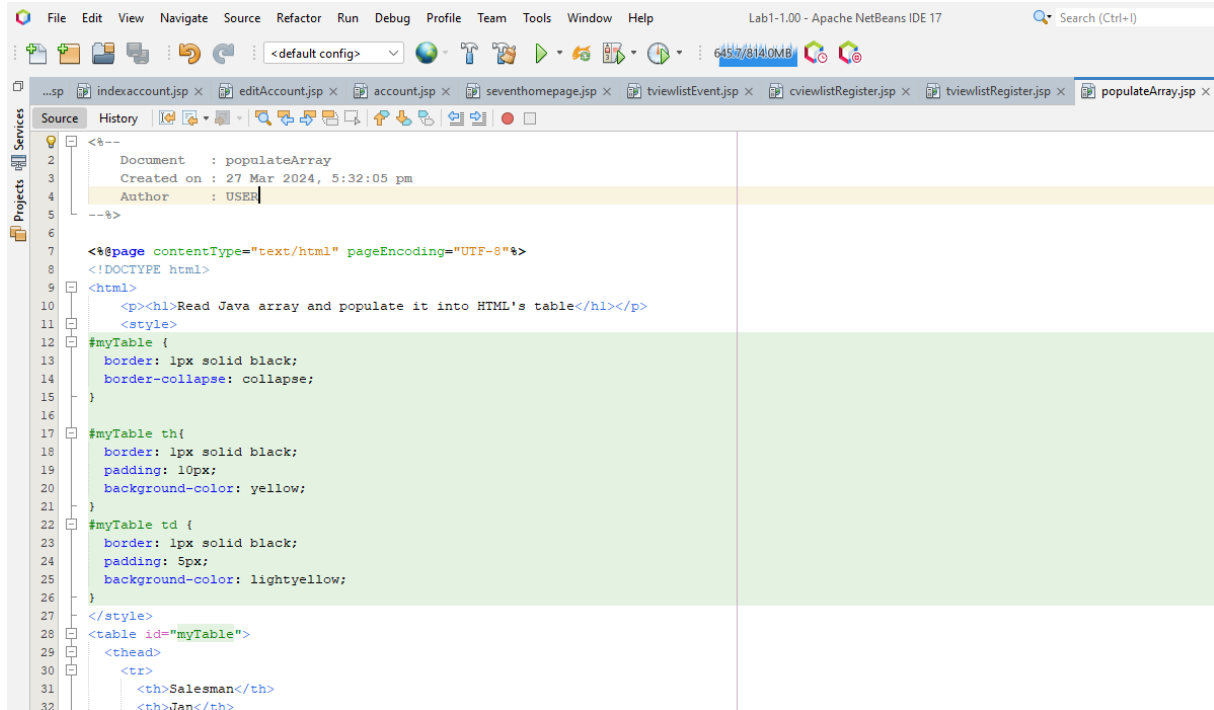


REFLECTION

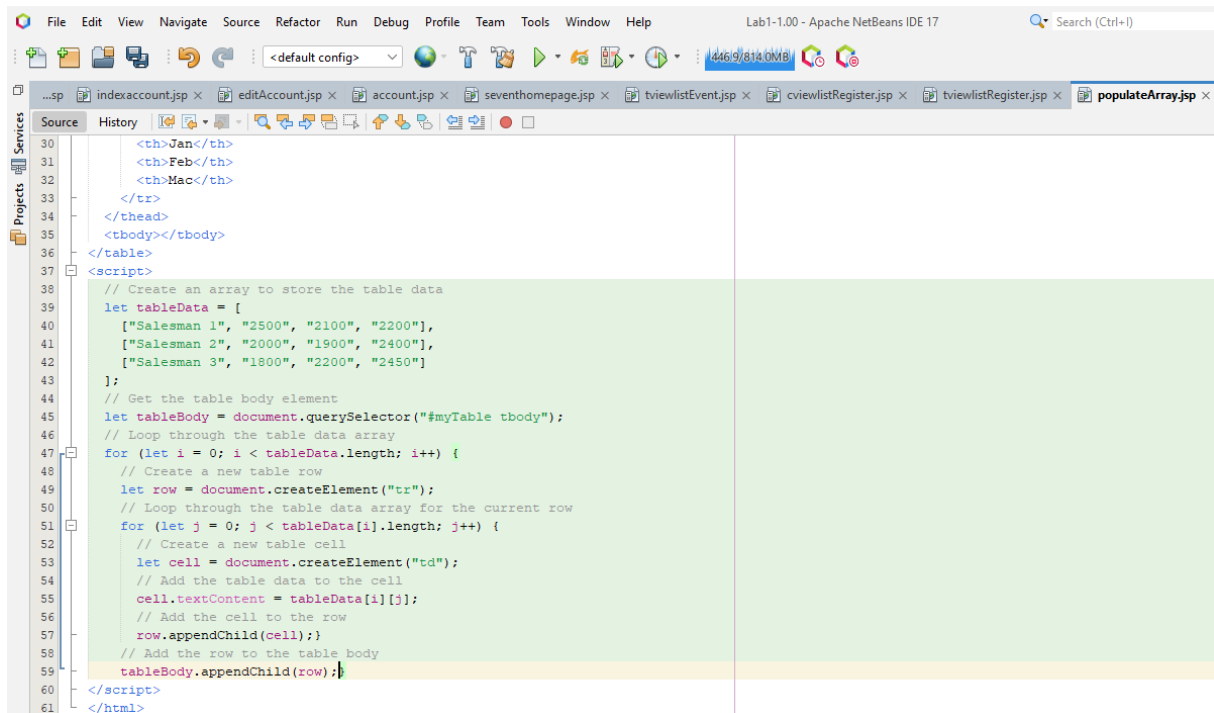
To submit specific information from one to next form is using session object

TASK 9

Code for populateArray.jsp

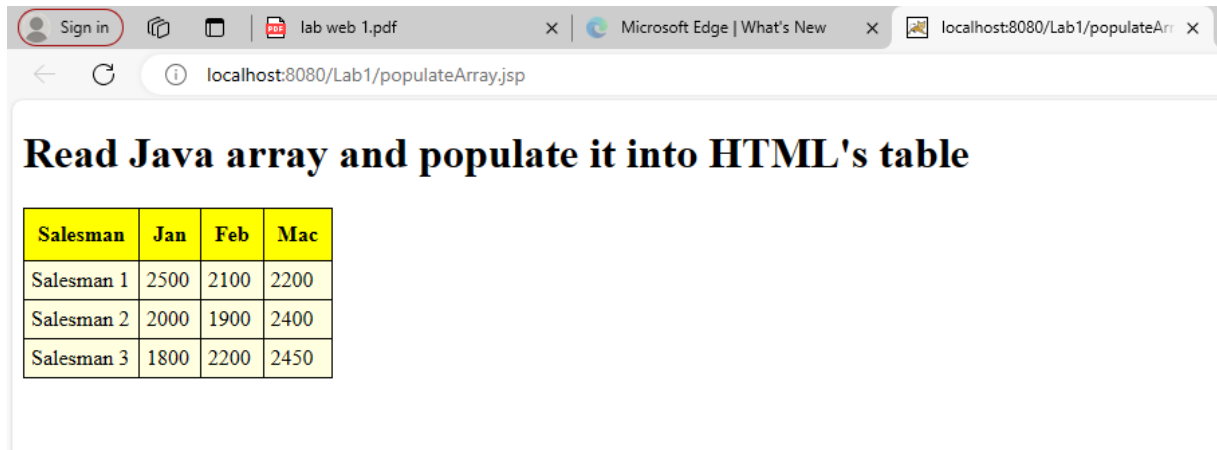


```
1 <!--
2 Document : populateArray
3 Created on : 27 Mar 2024, 5:32:05 pm
4 Author : USER
5 -->
6
7 <%@page contentType="text/html" pageEncoding="UTF-8"%>
8 <!DOCTYPE html>
9 <html>
10 <p><h1>Read Java array and populate it into HTML's table</h1></p>
11 <style>
12 #myTable {
13 border: 1px solid black;
14 border-collapse: collapse;
15 }
16
17 #myTable th{
18 border: 1px solid black;
19 padding: 10px;
20 background-color: yellow;
21 }
22 #myTable td {
23 border: 1px solid black;
24 padding: 5px;
25 background-color: lightyellow;
26 }
27 </style>
28 <table id="myTable">
29 <thead>
30 <tr>
31 <th>Salesman</th>
32 <th>Jan</th>
```



```
30 <th>Jan</th>
31 <th>Feb</th>
32 <th>Mac</th>
33 </tr>
34 </thead>
35 <tbody></tbody>
36 </table>
37 <script>
38 // Create an array to store the table data
39 let tableData = [
40 ["Salesman 1", "2500", "2100", "2200"],
41 ["Salesman 2", "2000", "1900", "2400"],
42 ["Salesman 3", "1800", "2200", "2450"]
43 ];
44 // Get the table body element
45 let tableBody = document.querySelector("#myTable tbody");
46 // Loop through the table data array
47 for (let i = 0; i < tableData.length; i++) {
48 // Create a new table row
49 let row = document.createElement("tr");
50 // Loop through the table data array for the current row
51 for (let j = 0; j < tableData[i].length; j++) {
52 // Create a new table cell
53 let cell = document.createElement("td");
54 // Add the table data to the cell
55 cell.textContent = tableData[i][j];
56 // Add the cell to the row
57 row.appendChild(cell);
58 // Add the row to the table body
59 tableBody.appendChild(row);
60 }
61 </script>
62 </html>
```

Output form populateArray.jsp



Read Java array and populate it into HTML's table

Salesman	Jan	Feb	Mac
Salesman 1	2500	2100	2200
Salesman 2	2000	1900	2400
Salesman 3	1800	2200	2450

REFLECTION

1.syntax to declare 2 dimension java array

```
let tableData = [  
    ["Salesman 1", "2500", "2100", "2200"],  
    ["Salesman 2", "2000", "1900", "2400"],  
    ["Salesman 3", "1800", "2200", "2450"] ];
```

2.different between html and jsp page are

HTML	JSP
Static	Dynamic
No need server processing to reach web server	Need server processing before send to client web server

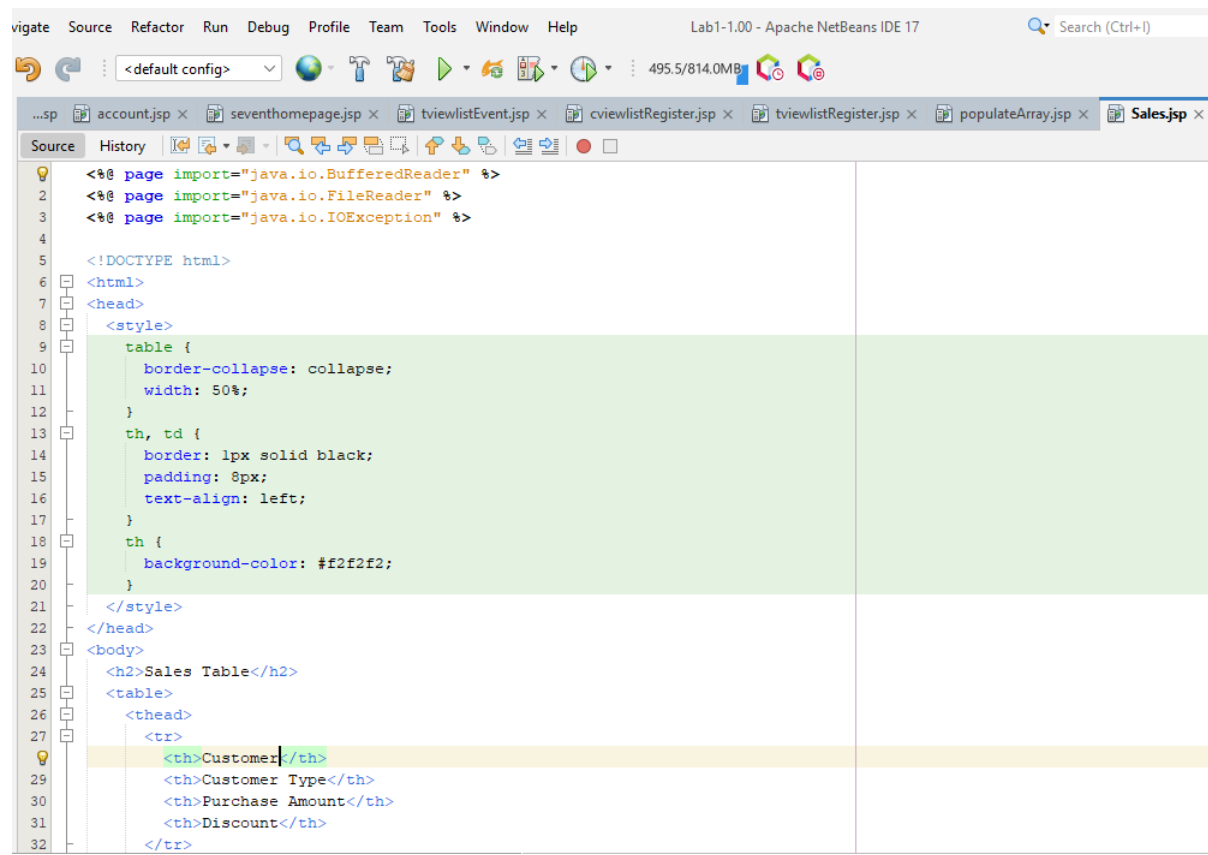
EXERCISE

QUESTION 1

```
1 import java.io.IOException;
2 import jakarta.servlet.ServletException;
3 import jakarta.servlet.annotation.WebServlet;
4 import jakarta.servlet.http.HttpServlet;
5 import jakarta.servlet.http.HttpServletRequest;
6 import jakarta.servlet.http.HttpServletResponse;
7
8 @WebServlet("/circle-area")
9 public class CircleAreaServlet extends HttpServlet {
10
11     @Override
12     protected void doGet(HttpServletRequest request, HttpServletResponse response)
13         throws ServletException, IOException {
14         request.getRequestDispatcher("circle-area.jsp").forward(request, response);
15     }
16
17     @Override
18     protected void doPost(HttpServletRequest request, HttpServletResponse response)
19         throws ServletException, IOException {
20         double radius = Double.parseDouble(request.getParameter("radius"));
21         double area = Math.PI * radius * radius;
22         request.setAttribute("area", area);
23         request.getRequestDispatcher("circle-area.jsp").forward(request, response);
24     }
25 }
```

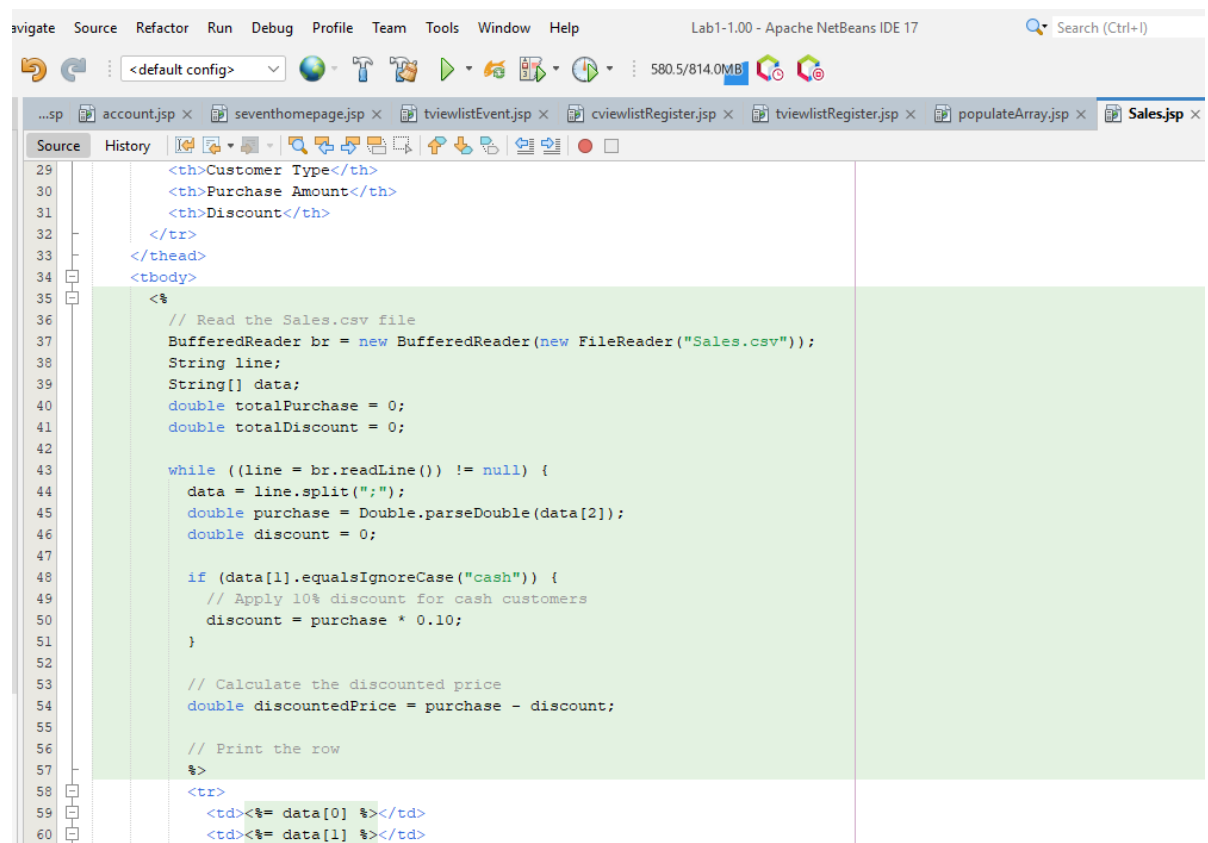
```
1 <%@ page import="java.util.*, java.text.DecimalFormat" %>
2 <!DOCTYPE html>
3 <html>
4 <head>
5 <title>Circle Area Calculator</title>
6 </head>
7 <body>
8 <h1>Circle Area Calculator</h1>
9 <form method="post" action="${pageContext.request.contextPath}/circle-area">
10 <label for="radius">Radius:</label>
11 <input type="text" name="radius" id="radius" required>
12 <button type="submit">Calculate Area</button>
13 </form>
14 <%
15     double area = (Double) request.getAttribute("area");
16     if (area != null) {
17         DecimalFormat df = new DecimalFormat("#.00");
18         %>
19 <p>The area of the circle with a radius of <%= df.format(radius) %> is <%= df.format(area) %>.</p>
20 <%
21     }
22 %>
23 </body>
24 </html>
```

QUESTION 2



```
<%% page import="java.io.BufferedReader" %>
<%% page import="java.io.FileReader" %>
<%% page import="java.io.IOException" %>

<!DOCTYPE html>
<html>
<head>
<style>
    table {
        border-collapse: collapse;
        width: 50%;
    }
    th, td {
        border: 1px solid black;
        padding: 8px;
        text-align: left;
    }
    th {
        background-color: #f2f2f2;
    }
</style>
</head>
<body>
<h2>Sales Table</h2>
<table>
<thead>
<tr>
<th>Customer</th>
<th>Customer Type</th>
<th>Purchase Amount</th>
<th>Discount</th>
</tr>
```



```
<th>Customer Type</th>
<th>Purchase Amount</th>
<th>Discount</th>
</tr>
</thead>
<tbody>
<%
    // Read the Sales.csv file
    BufferedReader br = new BufferedReader(new FileReader("Sales.csv"));
    String line;
    String[] data;
    double totalPurchase = 0;
    double totalDiscount = 0;

    while ((line = br.readLine()) != null) {
        data = line.split(",");
        double purchase = Double.parseDouble(data[2]);
        double discount = 0;

        if (data[1].equalsIgnoreCase("cash")) {
            // Apply 10% discount for cash customers
            discount = purchase * 0.10;
        }

        // Calculate the discounted price
        double discountedPrice = purchase - discount;

        // Print the row
        %>
<tr>
<td><%= data[0] %></td>
<td><%= data[1] %></td>
```

rigate Source Refactor Run Debug Profile Team Tools Window Help Lab1-1.00 - Apache NetBeans IDE 17 Search (Ctrl+I)

633.9/814.0MB

...sp account.jsp x seventhhomepage.jsp x tviewlistEvent.jsp x cviewlistRegister.jsp x tviewlistRegister.jsp x populateArray.jsp x Sales.jsp x

Source History

```
53 // Calculate the discounted price
54 double discountedPrice = purchase - discount;
55
56 // Print the row
57 <%
58 <tr>
59 <td><%= data[0] %></td>
60 <td><%= data[1] %></td>
61 <td><%= purchase %></td>
62 <td><%= discount %></td>
63 </tr>
64 <%
65 // Update the total purchase and total discount
66 totalPurchase += purchase;
67 totalDiscount += discount;
68 }
69
70 // Print the total row
71 <%
72 <tr>
73 <td><b>Total</b></td>
74 <td></td>
75 <td><b><%= totalPurchase %></b></td>
76 <td><b><%= totalDiscount %></b></td>
77 </tr>
78 <%
79 <%>
80 </tbody>
81 </table>
82 </body>
83 </html>
```