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LAB:

1

SUBJECT NAME:

CSE3023-WEB BASED APPLICATION

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TASK 5

Change the title to Servlet Saya Yang Pertama

Add hello, servlet! words at line 40

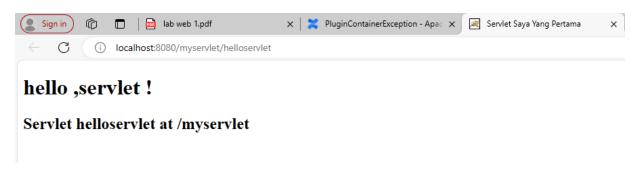
Change the header size to <h2>

```
🚺 File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
 🔁 🛅 🎴 🤚 : 🥱 🎑 : 🗆 <default config>
                                               🔽 🔘 - 🔐 🧗 🕽 - 🍇 🖺 - 🕕 - 🖂 283.4/859.0MB/ 🕼 🕼
Services Projects ×
                     ...sp 🗊 account.jsp × 🗊 seventhomepage.jsp × 🗊 tviewlistEvent.jsp × 🗊 tviewlistRegister.jsp × 📓 helloservlet.java ×
  groupproject-1.00
KPOS_V2-1.0-SNAPS
                     Source History | 😭 👼 🔻 🔻 - | 🔼 😍 🖶 🗀 | | 春 😓 - | 😫 💇 | | 🌑 | 🗆 | | 🕌 📑
                      14
 Lab8 myservlet-1.00
                      15
                             * @author USER
    ■ Web Pages
                            public class helloservlet extends HttpServlet {
  Source Packages
                      18
      <default pack</p>
                      19 📮

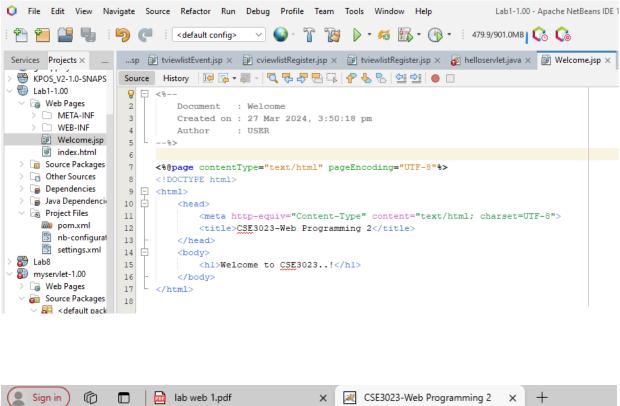
    ★ helloservle

                                * Processes requests for both HTTP <code>GET</code> and <code>POST</code>
      E com.mycomp
      e com.mycomp
  > 🝙 Test Packages
                            * @param request servlet request
                      23
  > 🕝 Other Sources
                      24
                                * @param response servlet response
  > 📴 Dependencies
                                 * @throws ServletException if a servlet-specific error occurs
                      25
    Java Dependenci
                                 * @throws IOException if an I/O error occurs
                      26
  Project Files
      pom.xml
                                protected void processRequest(HttpServletRequest request, HttpServletResponse response)
       nb-configurat
                         早
                                        throws ServletException, IOException {
      settings.xml
                                    {\tt response.setContentType} \ ("text/html; {\tt charset=UTF-8"}) \ ;
  Sport-1.00
                      31
                                    try (PrintWriter out = response.getWriter()) {
    Web Pages
Remote Files
                                         /* TODO output your page here. You may use following sample code. */
                                        out.println("<!DOCTYPE html>");
    Source Packages
                                        out.println("<html>");
    Test Packages
                      35
                                        out.println("<head>");
    Other Sources
                                        out.println("<title>Servlet Saya Yang Pertama</title>");
                      36
    Dependencies
                                        out.println("</head>");
    Java Dependenci
                                        out.println("<body>");
    Project Files
                                        out.println("<hl> hello ,servlet !</hl>");
      pom.xml
                                         out.println("<h2>Servlet helloservlet at " + request.getContextPath() + "</h2>");
      nb-configurat
                      41
                                         out.println("</body>");
      settings.xml
                                         out.println("</html>");
                      42
  est-1.00
                      43
  test2-1.00 test3-1.00
```

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.

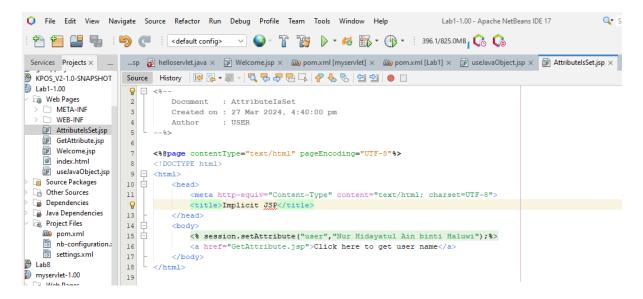
TASK 7

```
...sp 📦 seventhomepage.jsp 🗴 📦 tviewlistEvent.jsp 🗴 📦 cviewlistRegister.jsp 🗴 🎒 tviewlistRegister.jsp 🗴 📦 populateArray.jsp 🗴 📦 Sales.jsp 🗴 📦 useJavaObject.jsp 🗴
₩ = <%-
        Document : useJavaObject
       Created on : 27 Mar 2024, 4:09:49 pm
                 : USER
        Author
     <%@page contentType="text/html" pageEncoding="UTF-8"%>
     <%@page import="java.util.Date.*"%>
<body>
          <hl>Display current Date and Perform simple Mathematics operations </hl>
15
              Date todayDate= new Date();
     out.print("Current date and time is " + todayDate.toString() + "");
              response.setIntHeader("Refresh", 5);
    </body>
22
```

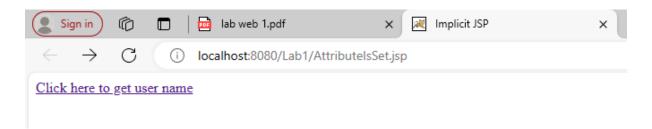
- -I have learn how to display the current date by importing java util package
- Java scriptlet is a piece of Java code that is embedded in a JSP file.it used to execute Java code that performs a specific function. Java scriptlets are enclosed in <% and %> tags
- -to use java code in jsp file is we can use jsp scripting elements such as jsp scriptlets.

TASK 8

code for AttributeIsSet.jsp



Output for AttributeIsSet.jsp



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

code for GetAttribute.jsp file

```
Q File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help Lab1-1.00 - Apache NetBeans IDE 17
   The second secon
   Services Projects × _ ...sp 😰 helloservlet.java × 🖫 Welcome.jsp × 🛍 pom.xml [myservlet] × 🛍 pom.xml [Lab1] × 🖫 useJavaObject.jsp × 🗊 AttributelsSet.jsp × 📦 GetAttribute.jsp ×
Created on : 27 Mar 2024, 4:44:48 pm

☐ WEB-INF

                                                                                                  Author
                                                                                                                                  : USER
            AttributelsSet.jsp
  GetAttribute.jsp

Welcome.jsp

index.html
                                                                                  <%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
            useJavaObject.jsp
                                                                    Source Packages
Other Sources
                                                                                      <head>
                                                                                                  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>JSP Page</title>
    Dependencies
Java Dependencies
Project Files
                                                                    14
                                                                                                   <body>
           pom.xml
                                                                   16
17
8
           nb-configuration.
                                                                                                                    String name=(String) session.getAttribute("user");
Hab8
myservlet-1.00
                                                                    19 - </br>
20 - </html>
                                                                                                  </body
    Web Pages
Source Packages
       ∨ 🟭 <default package>
```

the output from GetAttribute.jsp file



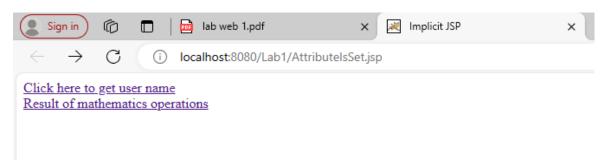
Latest code for AttributeIsSet.jsp to add a new link

```
Lab1-1.00 - Apache NetBeans IDE
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
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                      ...va 🗊 Welcome.jsp × 👊 pom.xml [myservlet] × 👊 pom.xml [Lab1] × 🗊 useJavaObject.jsp × 📦 AttributelsSet.jsp ×
 Services Projects × _
                      Source History | 🔀 🎜 🔻 🖟 🗸 🖓 🖶 🗔 | 🚰 😓 | 💇 💇 | 🐽 🗆
OS_V2-1.0-SNAPSHOT
b1-1.00
                       ♀ □ <%--
Web Pages
                                Document : AttributeIsSet

☐ META-INF

                                Created on: 27 Mar 2024, 4:40:00 pm
  WEB-INF
                                Author
                                           : USER
AttributelsSet.jsp
GetAttribute.isp
MathematicsOperations
                            <%@page contentType="text/html" pageEncoding="UTF-8"%>
Welcome.jsp
                            <%@page import="java.math.*"%>
index.html
useJavaObject.jsp
                      10
                           <!DOCTYPE html>
Source Packages
                      11 📮 <html>
Other Sources
                      12 =
Dependencies
                                    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
                      13
Java Dependencies
                      14
                                    <title>Implicit JSP</title>
Project Files
                     15
pom.xml
                     16
nb-configuration.xml
                     17
                                    <% session.setAttribute("user","Nur Hidayatul Ain binti Haluwi");%>
settings.xml
                                  <a href="GetAttribute.jsp">Click here to get user name</a><br>
                     18
b8
                      19
                                    <a href="MathematicsOperations.jsp">Result of mathematics operations</a>
yservlet-1.00
                     20
Web Pages
                      21
                            </html>
Source Packages
                    22
```

New output for AttributeIsSet.jsp



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

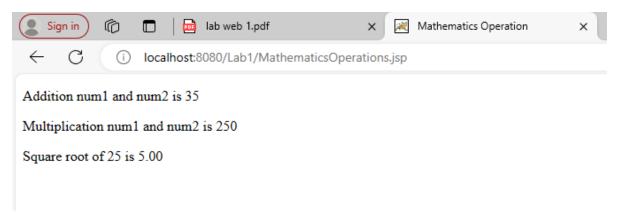
Code for MathematicOperations.jsp file

```
🔾 File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help Lab1-1.00 - Apache NetBeans IDE 17
: 😷 🚰 🛂 🦣 : 🦻 🍘 : | <default config> 🔻 📦 - 🔐 > 🕻 👸 - 🕦 - : 280.6/787.0Må 🕻 🗘
OS_V2-1.0-SNAPSHOT
Web Pages
                        - <html> <h
 META-INF
WEB-INF
AttributelsSet.jsp

GetAttribute.jsp
                                   <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
                                   <title>Mathematics Operation</title>
GetAttribute.jsp

MathematicsOperations
                               </head>
Welcome.jsp
index.html
useJavaObject.jsp
                                       int num1=25:
                                   int num2=10;
Source Packages
                                       int addition_output;
int multiply_output;
Other Sources
Dependencies
Java Dependencies
                                      double squareroot= 0.00;
Project Files
pom.xml
nb-configuration.xml
settings.xml
                                      java.util.Formatter myFormat=new java.util.Formatter();
                     23
24
                                      addition output= num1 + num2;
                                       multiply_output= numl * num2;
yservlet-1.00
Web Pages
                                      squareroot = (double) (Math.sqrt(numl));
                                      out.print("Addition numl and num2 is " + addition_output + "");
out.print("Addition_numl and num2 is " + multiply_output + "");
Source Packages
<default package>
helloservlet.java
com.mycompany.myse
                                       out.print("<p</p>");
                                       out.print("Square root of " +numl + " is " + myFormat.format("%.2f",squareroot) + "");
Test Packages
Other Sources
Dependencies
                               </body>
                           </html>
Project Files
```

Output from MathematicOperations.jsp file



REFLECTION

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

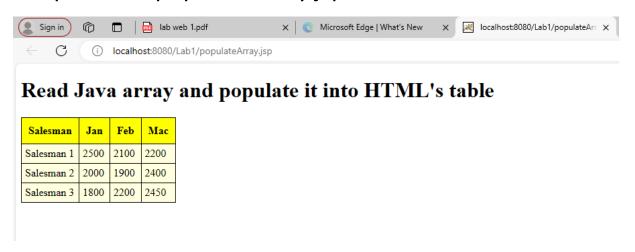
TASK 9

Code for populateArray.jsp

```
🔾 File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help Lab1-1.00 - Apache NetBeans IDE 17
 u.sp indexaccount.jsp x indexacc
Document : populateArray
Created on : 27 Mar 2024, 5:32:05 pm
Author : USER
5
                        <%@page contentType="text/html" pageEncoding="UTF-8"%>
                             <!DOCTYPE html>
         border: lpx solid black;
                         border: lpx solid black;
border-collapse: collapse;
}
          15
         16
17 = #myTable th{
                                 border: lpx solid black;
                            padding: 10px;
background-color: yellow;
          22 = #myTable td {
                            padding: 5px;
background-color: lightyellow;
         24
         27 - </style>
28 - 
         29 =
30 =
                                   Salesman
```

```
🔾 File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help Lab1-1.00 - Apache NetBeans IDE 17
: 😷 🚰 🛂 🥫 : 🦻 🍘 : | < default config> 🔍 🔘 - 🔐 | 🔖 - 🎋 🚯 - 🕦 - : | 4469/814.0008| 📞 📞
u.sp indexaccount.jsp x indexacc
Feb
=
                                       </thead>
                                 -
                          // Create an array to store the table data
                           // Create an array to store the table dat.
let tableData = [
["Salesman 1", "2500", "2100", "2200"],
["Salesman 2", "2000", "1900", "2400"],
["Salesman 3", "1800", "2200", "2450"]
                           let tableBody = document.querySelector("#myTable tbody");
          45
                          for (let i = 0; i < tableData.length; i++) {
         48
49
                                    let row = document.createElement("tr");
                                  for (let j = 0; j < tableData[i].length; j++) {
          52
                                     let cell = document.createElement("td");
                                        cell.textContent = tableData[i][j];
         57
58
                                           row.appendChild(cell);}
                                     tableBody.appendChild(row);}
                     </html>
```

Output form populateArray.jsp



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	Need server processing
reach web server	before send to client web
	server

EXERCISE

QUESTION 1

```
...sp 📝 cviewlistRegister.jsp × 🗊 tviewlistRegister.jsp × 🗊 populateArray.jsp × 🗊 Sales.jsp × 🗊 useJavaObject.jsp × 🚳 CircleAreaServlet.java × 🗊 circle-area.jsp ×
1 import java.io.IOException:
     import jakarta.servlet.ServletException;
     import jakarta.servlet.annotation.WebServlet;
     import jakarta.servlet.http.HttpServlet;
     import jakarta.servlet.http.HttpServletRequest;
   import jakarta.servlet.http.HttpServletResponse;
     @WebServlet("/circle-area")
8
     public class CircleAreaServlet extends HttpServlet {
10
11
0
         protected void doGet(HttpServletRequest request, HttpServletResponse response)
13 🖃
         throws ServletException, IOException {
14
            request.getRequestDispatcher("circle-area.jsp").forward(request, response);
15
16
₽.‡
     protected void doPost(HttpServletRequest request, HttpServletResponse response)
   早
19
         throws ServletException, IOException {
20
            double radius = Double.parseDouble(request.getParameter("radius"));
             double area = Math.PI * radius * radius;
21
             request.setAttribute("area", area);
22
23
             request.getRequestDispatcher("circle-area.jsp").forward(request, response);
24
25
```

```
...sp 🗊 cviewlistRegister.jsp 🗴 🗊 tviewlistRegister.jsp x 🗊 populateArray.jsp x 🗊 Sales.jsp x 🗊 useJavaObject.jsp x 🚳 CircleAreaServlet.java x
Source History | 🔀 👼 🔻 🗐 🔻 🞝 🖶 📮 | 🔗 😓 | 💇 💇 | 💿 🗆
      <%@ page import="java.util.*, java.text.DecimalFormat" %>
     <!DOCTYPE html>
<title>Circle Area Calculator</title>
8
      </head>
<h1>Circle Area Calculator</h1>
         <form method="post" action="${pageContext.request.contextPath}/circle-area">
           <label for="radius">Radius:</label>
13
             <input type="text" name="radius" id="radius" required>
14
             <button type="submit">Calculate Area</button>
         </form>
15
16 🗏 <%
17
            double area = (Double) request.getAttribute("area");
           if (area != null) {
18
19
                 DecimalFormat df = new DecimalFormat("#.00");
20
              %>
21
                 The area of the circle with a radius of <%= df.format(radius) %> is <%= df.format(area) %>.
22
23
24
   </bous.
</html>
25
26
```

QUESTION 2

```
vigate Source Refactor Run Debug Profile Team Tools Window Help Lab1-1.00 - Apache NetBeans IDE 17
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 ...sp 🗊 account.jsp × 🗊 seventhomepage.jsp × 🗊 tviewlistEvent.jsp × 🗊 cviewlistRegister.jsp × 🗊 tviewlistRegister.jsp × 🗊 populateArray.jsp ×
 Source History | 🖫 🌠 🔻 🔻 🤻 🖓 🖶 📮 | 🚰 😓 | 🔩 🔩 | 🔩 🔮 | 🔘
      <%@ page import="java.io.BufferedReader" %>
       <%@ page import="java.io.FileReader" %>
      <%@ page import="java.io.IOException" %>
      <!DOCTYPE html>
  6 - <html>
    - <head>
        <style>
          border-collapse: collapse;
           width: 50%;
        th, td {
   border: lpx solid black;
   padding: 8px;
   text-align: left;
 12
 13
 14
 15
 16
 18
        th {
           background-color: #f2f2f2;
 20
 21
        </style>
 22
      </head>
 23 - <body>
       <h2>Sales Table</h2>
 24
 25
        26
         <thead>
      27
       Customer Type
Purchase Amount

 30
 31
             Discount
avigate Source Refactor Run Debug Profile Team Tools Window Help Lab1-1.00 - Apache NetBeans IDE 17 Q Search (Ctrl+I)
崎 🍘 🗄 <default config> 🔻 📦 🕆 🚏 👺 👂 🔻 🍇 🗓 🔻 🕦 🔻 🖟 580.5/814.0<mark>MBI</mark> 📢 🕼
 ...sp 🗊 account.jsp 🗴 🗊 seventhomepage.jsp 🗴 🗊 tviewlistEvent.jsp 🗴 🗊 cviewlistRegister.jsp × 🗊 tviewlistRegister.jsp × 🗊 populateArray.jsp ×
 Source History | 🔀 📮 🔻 🗐 🔻 🞝 🖶 📑 | 🔗 😓 | 🖆 💇 | 💿 🗆
              Customer Type
  30
              Purchase Amount
  31
              Discount
           32
          </thead>
  33
 40
              double totalPurchase = 0;
             double totalDiscount = 0;
  42
  43
             while ((line = br.readLine()) != null) {
              data = line.split(";");
  44
               double purchase = Double.parseDouble(data[2]);
double discount = 0;
  45
  46
  47
               if (data[1].equalsIgnoreCase("cash")) {
  49
  50
                 discount = purchase * 0.10;
  51
  52
                // Calculate the discounted price
  53
  54
                double discountedPrice = purchase - discount;
  55
  56
  57
 58 =
59 =
60 =
                <$= data[0] %>
```

```
rigate Source Refactor Run Debug Profile Team Tools Window Help Lab1-1.00 - Apache NetBeans IDE 17
岑 🥊 : <default config> 🔻 🌑 - 🚏 👺 👂 - 🍕 🐘 - 🕦 - : 633.9/814.<mark>0MB</mark> 🗘 🕻
...sp 🗊 account.jsp x 🗊 seventhomepage.jsp x 🗊 tviewlistEvent.jsp x 🗊 cviewlistRegister.jsp x 🗊 tviewlistRegister.jsp x 🗊 populateArray.jsp x
 Source History 🖟 🖟 🔻 🗸 🖓 🖶 🗐 🔓 😤 🖆 🔮 🕒 🗆
               // Calculate the discounted price
              double discountedPrice = purchase - discount;
 54
 55
 56
               // Print the row
 56
57
58
59
60
61
62
63
64
           %>
          <$= data[0] $>
<$= data[1] $>
<$= purchase $>
<$= discount $>

               <%
        // Update the total purchase and total discount
 65
 66
               totalPurchase += purchase;
               totalDiscount += discount;
 68
 69
 70
71
 71 | - 72 | - 73
             \ensuremath{//} Print the total row
      %>
       74
 80
     81
 82 - </body> </html>
```