

Lab Sheet 4

Create a servlet that receives user input from an HTML form and displays it back to the user.

Steps:

1. Create an HTML form to collect the user's name.
2. Create a Servlet (GetUserInputServlet) to handle the form submission and display the user's name.

HTML Form (index.html):

```
<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body bgcolor ="#ffbf00">


<div><h1><center>User input</center></h1></div>


<form action="getUserInput12" method="POST">

<table style = "width:70%">

<tr><th><h3> Name </h3></th><th><input type="text" name="un"</tr>

<tr><td colspan="2" align="center"><input type ="submit" value="save"</td></tr>

</form>

</table>

<tr>

<hr>

<h1>Calculate</h1>

<form action="CalculateSumServlet"method="post">

    First Number:<input type="number" name="num1" required><br>

    Second Number: <input type="number" name="num2" required><br>
```

```
<input type="submit" value="Calculate Sum">
```

```
</form>
```

```
</tr>
```

```
</form>
```

```
</body>
```

```
</html>
```

(getUserInput.java)

```
import java.io.IOException;
```

```
import java.io.PrintWriter;
```

```
import javax.servlet.ServletException;
```

```
import javax.servlet.annotation.WebServlet;
```

```
import javax.servlet.http.HttpServlet;
```

```
import javax.servlet.http.HttpServletRequest;
```

```
import javax.servlet.http.HttpServletResponse;
```

```
/**
```

```
 *
```

```
 * @author student
```

```
 */
```

```
@WebServlet(urlPatterns = {"/getUserInput"})
```

```
public class getUserInput12 extends HttpServlet {
```

```
    /**
```

```
     * Processes requests for both HTTP GET and POST
```

```
     * methods.
```

```
     *
```

```
     * @param request servlet request
```

```
     * @param response servlet response
```

* @throws ServletException if a servlet-specific error occurs

* @throws IOException if an I/O error occurs

*/

protected void processRequest(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

 String name = request.getParameter("un");

 response.setContentType("text/html;charset=UTF-8");

 try (PrintWriter out = response.getWriter()) {

 /* TODO output your page here. You may use following sample code. */

 out.println("<!DOCTYPE html>");

 out.println("<html>");

 out.println("<head>");

 out.println("<title>Servlet getUserInput12</title>");

 out.println("</head>");

 out.println("<body>");

 out.println("<h1> Input name " + name + "</h1>");

 out.println("</body>");

 out.println("</html>");

 }

}

// <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on the left to edit the code.">

/**

* Handles the HTTP <code>GET</code> method.

*

* @param request servlet request

* @param response servlet response

* @throws ServletException if a servlet-specific error occurs

```

    * @throws IOException if an I/O error occurs
    */

    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        processRequest(request, response);
    }

    /**
     * Handles the HTTP <code>POST</code> method.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        processRequest(request, response);
    }

    /**
     * Returns a short description of the servlet.
     *
     * @return a String containing servlet description
     */
    @Override
    public String getServletInfo() {

```

```
return "Short description";  
  
} // </editor-fold>  
  
}
```

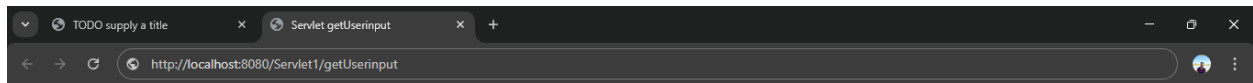
The screenshot shows a web browser window with a single tab titled 'TODO supply a title'. The address bar displays 'http://localhost:8080/Servlet1/index.html'. The page content is divided into two main sections by a horizontal line.

User Input

This section contains a form with a label 'Name' and a text input field containing the text 'Dasun'. Below the input field is a 'Save' button.

Calculate

This section contains two labels, 'First Number:' and 'Second Number:', each followed by a text input field. Below these fields is a 'Calculate Sum' button.



Input name Dasun

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 *
 * @author student
 */
@WebServlet(urlPatterns = {"/CalculateSumServlet"})
public class CalculateSumServlet extends HttpServlet {

    /**
```

* Processes requests for both HTTP `GET` and `POST`

* methods.

*

* @param request servlet request

* @param response servlet response

* @throws ServletException if a servlet-specific error occurs

* @throws IOException if an I/O error occurs

*/

protected void processRequest(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

int num1 = Integer.parseInt(request.getParameter("num1"));

int num2 = Integer.parseInt(request.getParameter("num2"));

int sum = num1 + num2;

response.setContentType("text/html;charset=UTF-8");

try (PrintWriter out = response.getWriter()) {

 /* TODO output your page here. You may use following sample code. */

 out.println("<!DOCTYPE html>");

 out.println("<html>");

 out.println("<head>");

 out.println("<title>Servlet CalculateSumServlet</title>");

 out.println("</head>");

 out.println("<body>");

 out.println("<h1> Calculate Sum</h1>");

 out.println("<h3> First user input:"+num1+"</h1>");

 out.println("<h3> Second user input:"+num2+"</h1>");

 out.println("<h1> Answer:"+sum+"</h1>");

 //out.println("<h1>The sum of " + num1 + " and " + num2 + " is: " + sum + "</h1>");

 //out.println("<h1>Servlet CalculateSumServlet at " + request.getContextPath() + "</h1>");

 out.println("</body>");

```
out.println("</html>");
```

```
}
```

```
}
```

```
// <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on the left to  
edit the code.">
```

```
/**
```

```
 * Handles the HTTP <code>GET</code> method.
```

```
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```
 * @param request servlet request
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 * @param response servlet response
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 * @throws ServletException if a servlet-specific error occurs
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 * @throws IOException if an I/O error occurs
```

```
 */
```

```
@Override
```

```
protected void doGet(HttpServletRequest request, HttpServletResponse response)
```

```
throws ServletException, IOException {
```

```
    processRequest(request, response);
```

```
}
```

```
/**
```

```
 * Handles the HTTP <code>POST</code> method.
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 * @param request servlet request
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 * @throws ServletException if a servlet-specific error occurs
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```
 * @throws IOException if an I/O error occurs
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```
 */
```

```
@Override
```



```
protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
    processRequest(request, response);
}

/**
 * Returns a short description of the servlet.
 *
 * @return a String containing servlet description
 */
@Override
public String getServletInfo() {
    return "Short description";
}
}
```

The screenshot shows a web browser window with a single tab titled 'TODO supply a title'. The address bar displays 'http://localhost:8080/Servlet1/index.html'. The page content is divided into two main sections by a horizontal line.

The top section, titled 'User Input', contains a label 'Name' followed by a text input field. Below the input field is a 'Save' button.

The bottom section, titled 'Calculate', contains two input fields. The first is labeled 'First Number' and has the value '234'. The second is labeled 'Second Number' and has the value '23'. Below these fields is a 'Calculate Sum' button.



Calculate Sum

First user input:234

Second user input:23

Answer:257