

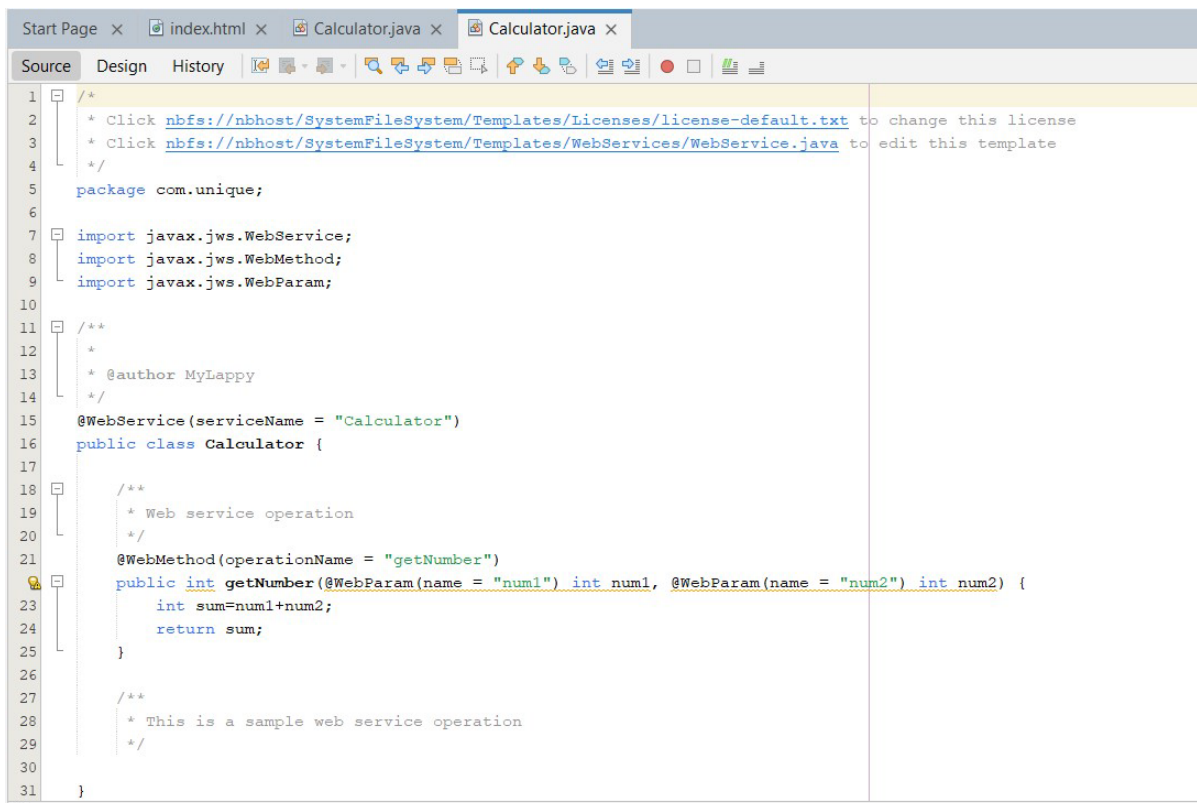
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Assignment 7

Code:

WebService Server:

Calculator.java operation



```
1  /*
2  * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
3  * Click nbfs://nbhost/SystemFileSystem/Templates/WebServices/WebService.java to edit this template
4  */
5  package com.unique;
6
7  import javax.jws.WebService;
8  import javax.jws.WebMethod;
9  import javax.jws.WebParam;
10
11  /**
12   *
13   * @author MyLappy
14   */
15  @WebService(serviceName = "Calculator")
16  public class Calculator {
17
18      /**
19       * Web service operation
20       */
21      @WebMethod(operationName = "getNumber")
22      public int getNumber(@WebParam(name = "num1") int num1, @WebParam(name = "num2") int num2) {
23          int sum=num1+num2;
24          return sum;
25      }
26
27      /**
28       * This is a sample web service operation
29       */
30  }
```

Web Service Tester

Calculator Web Service Tester

This form will allow you to test your web service implementation ([WSDL File](#))

To invoke an operation, fill the method parameter(s) input boxes and click on the button labeled with the method name.

Methods :

public abstract int com.unique.Calculator.getNumber(int,int)
getNumber (12 , 14)

getNumber Method invocation

Method parameter(s)

Type	Value
int	12
int	14

Method returned

int: "26"

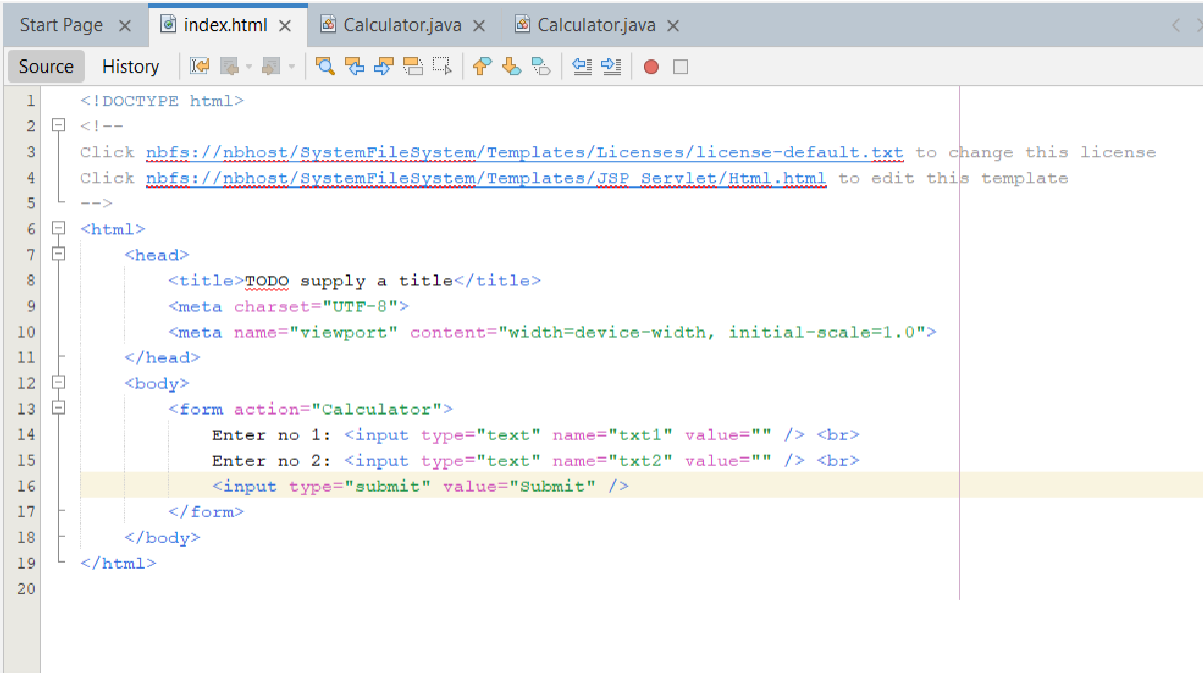
SOAP Request

```
<?xml version="1.0" encoding="UTF-8"?><S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <S:Body>
    <ns2:getNumber xmlns:ns2="http://unique.com/">
      <num1>12</num1>
      <num2>14</num2>
    </ns2:getNumber>
  </S:Body>
</S:Envelope>
```

SOAP Response

```
<?xml version="1.0" encoding="UTF-8"?><S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <S:Body>
    <ns2:getNumberResponse xmlns:ns2="http://unique.com/">
      <return>26</return>
    </ns2:getNumberResponse>
  </S:Body>
</S:Envelope>
```

Web Service Client :



```
Start Page × index.html × Calculator.java × Calculator.java ×
Source History
29 * @param response servlet response
30 * @throws ServletException if a servlet-specific error occurs
31 * @throws IOException if an I/O error occurs
32 */
33 protected void processRequest(HttpServletRequest request, HttpServletResponse response)
34     throws ServletException, IOException {
35     response.setContentType("text/html;charset=UTF-8");
36     try (PrintWriter out = response.getWriter()) {
37         int num1=Integer.parseInt(s: request.getParameter(name:"txt1")), num2=Integer.parseInt(s: request.getParameter(name:"txt2"));
38         out.println(x: "<!DOCTYPE html>");
39         out.println(x: "<html>");
40         out.println(x: "<head>");
41         out.println(x: "<title>Servlet Calculator</title>");
42         out.println(x: "</head>");
43         out.println(x: "<body>");
44         out.println("<h1>Servlet Calculator at " + getNumber(num1, num2) + "</h1>");
45         out.println(x: "</body>");
46         out.println(x: "</html>");
47     }
48 }
49
50 HttpServlet methods. Click on the + sign on the left to edit the code.
51
52
53
54
55
56
57
58
59 private int getNumber(int num1, int num2) {
60     // Note that the injected javax.xml.ws.Service reference as well as port objects are not thread safe.
61     // If the calling of port operations may lead to race condition some synchronization is required.
62     com.unique.Calculator port = service.getCalculatorPort();
63     return port.getNumber(num1, num2);
64 }
65
66 }
```

Output:

Enter no 1:	<input type="text" value="1"/>
Enter no 2:	<input type="text" value="2"/>
<input type="button" value="Submit"/>	

Servlet Calculator at 3