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Assignment no:7

CalculatorServlet.java

```
import com.myservice.MyCalculatorWebService_Service;
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.xml.ws.WebServiceRef;

/**
 *
 * @author Kasturi Pramod Desai
 */
public class CalculatorServlet extends HttpServlet {

    @WebServiceRef(wsdlLocation = "WEB-
INF/wsdl/localhost_8080/Assignmentno7/MyCalculatorWebService.wsdl")
    private MyCalculatorWebService_Service service;

    /**
     * Processes requests for both HTTP <code>GET</code> and <code>POST</code>
     * 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 {
        response.setContentType("text/html;charset=UTF-8");
        try (PrintWriter out = response.getWriter()) {
            double num1,num2;
            num1=Double.parseDouble(request.getParameter("number1"));
             num2=Double.parseDouble(request.getParameter("number2"));
            /* TODO output your page here. You may use following sample code. */
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title> Calculator Servlet Output</title>");
            out.println("</head>");
            out.println("<body>");
```

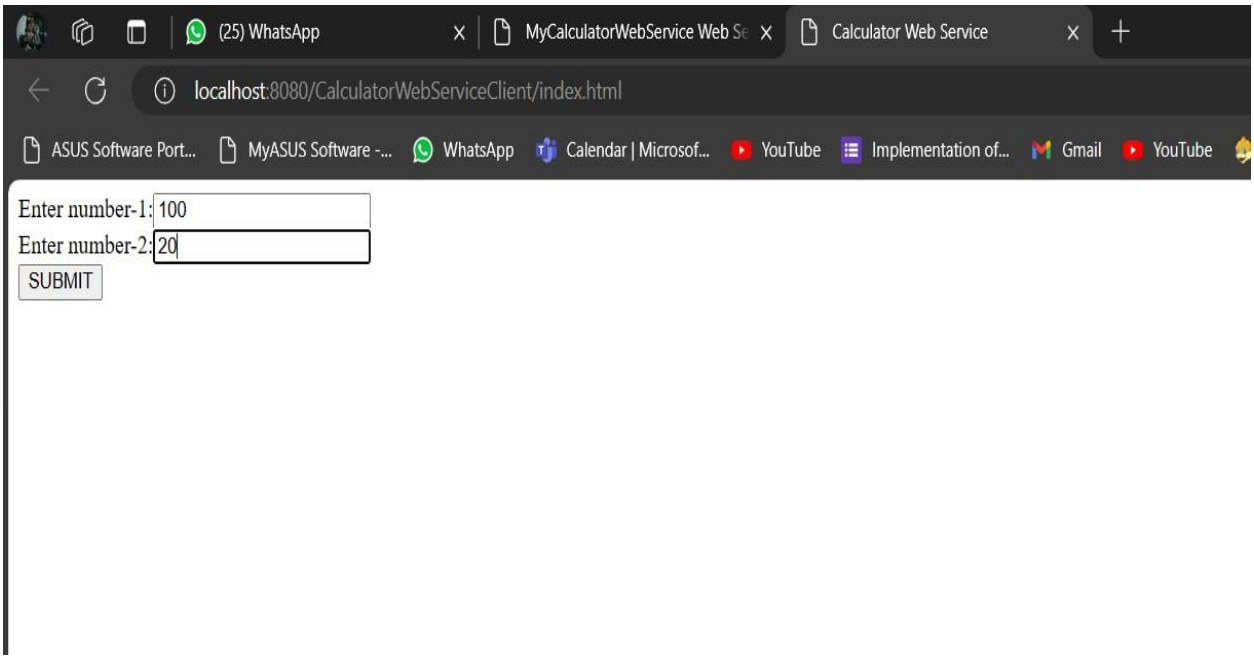
```
            out.println("<h1>Addition is " + addition(num1,num2) + "</h1>");
            out.println("<h1>Subtraction is " + subtraction(num1,num2) + "</h1>");
            out.println("<h1>Multiplication is " + multiplication(num1,num2) + "</h1>");
            out.println("<h1>Division is " + division(num1,num2) + "</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>
```

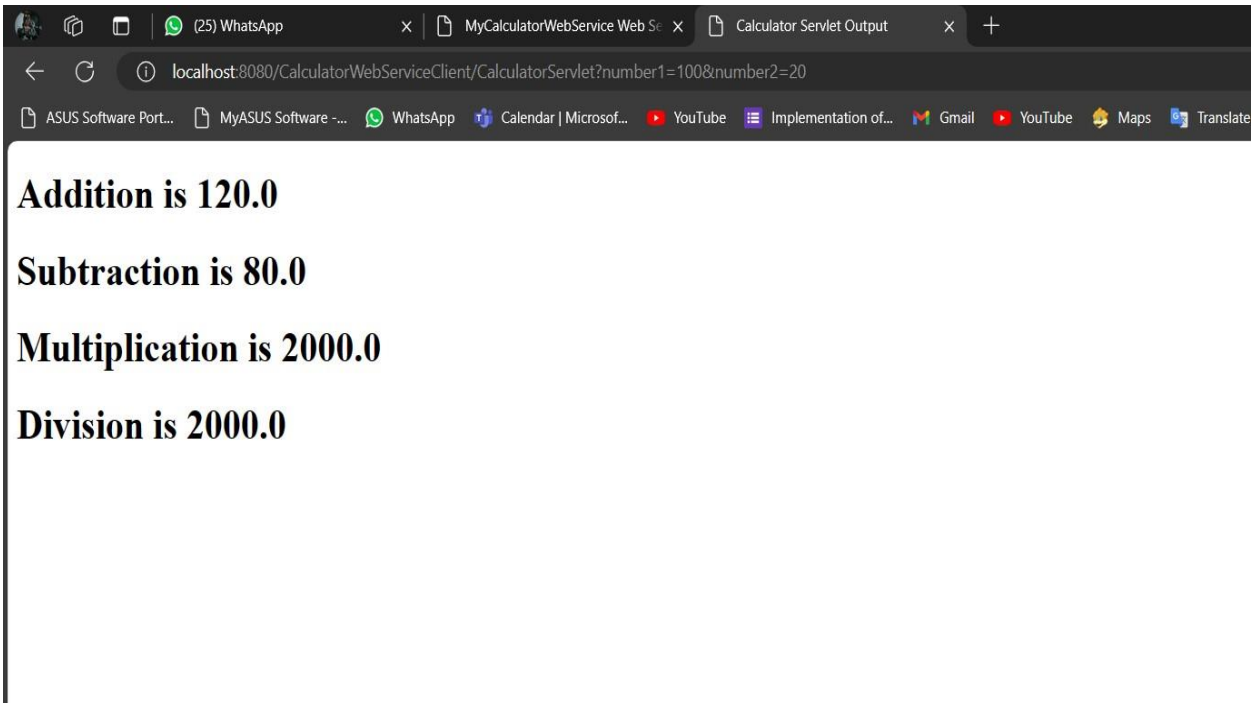
```
    private double addition(double num1, double num2) {
        // Note that the injected javax.xml.ws.Service reference as well as port objects are not thread safe.
        // If the calling of port operations may lead to race condition some synchronization is required.
        com.myservice.MyCalculatorWebService port = service.getMyCalculatorWebServicePort();
        return port.addition(num1, num2);
    }

    private double division(double num1, double num2) {
        // Note that the injected javax.xml.ws.Service reference as well as port objects are not thread safe.
        // If the calling of port operations may lead to race condition some synchronization is required.
        com.myservice.MyCalculatorWebService port = service.getMyCalculatorWebServicePort();
        return port.division(num1, num2);
    }

    private double multiplication(double num1, double num2) {
        // Note that the injected javax.xml.ws.Service reference as well as port objects are not thread safe.
        // If the calling of port operations may lead to race condition some synchronization is required.
        com.myservice.MyCalculatorWebService port = service.getMyCalculatorWebServicePort();
        return port.multiplication(num1, num2);
    }

    private double subtraction(double num1, double num2) {
        // Note that the injected javax.xml.ws.Service reference as well as port objects are not thread safe.
        // If the calling of port operations may lead to race condition some synchronization is required.
        com.myservice.MyCalculatorWebService port = service.getMyCalculatorWebServicePort();
        return port.subtraction(num1, num2);
    }
}
```

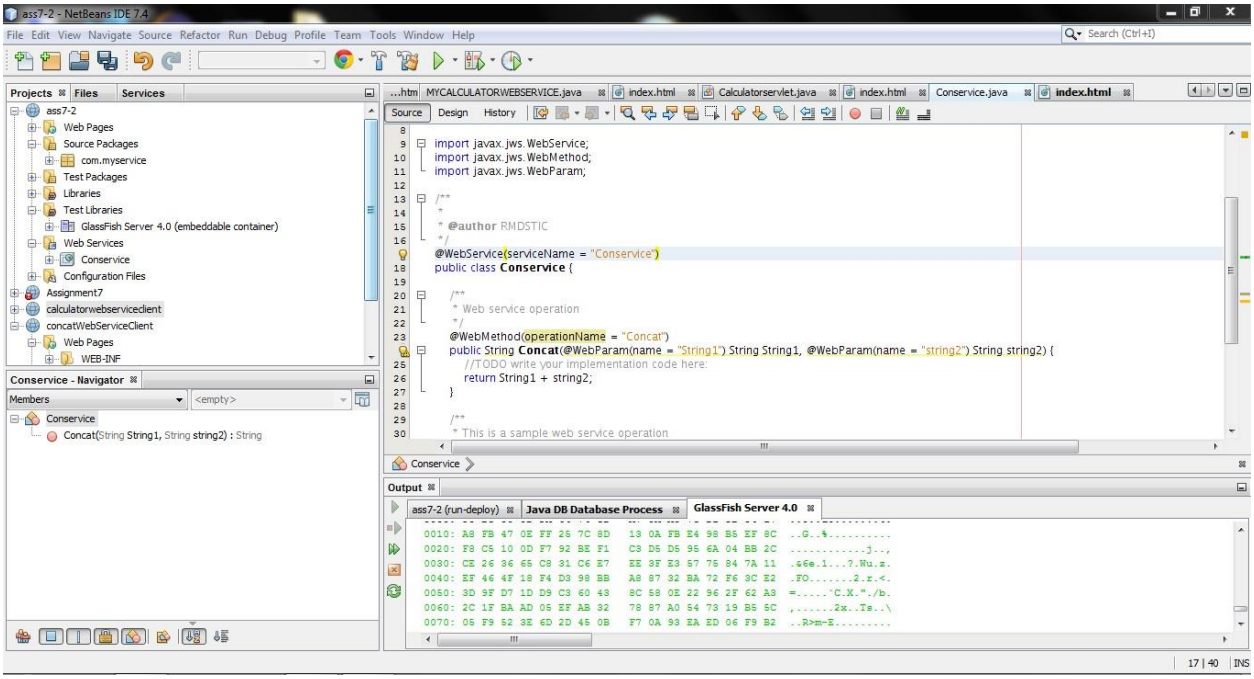
Index.html

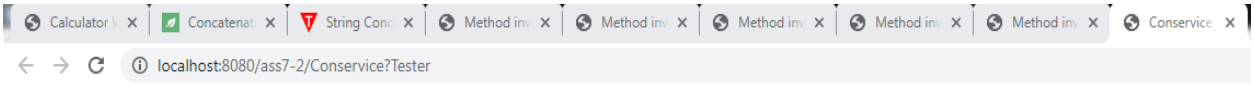
```
<html>
    <head>
        <title>Calculator Web Service</title>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
    </head>
    <body>
        <form action="CalculatorServlet">
            Enter number-1:<input type="text" name="number1" value=""/> <br>
             Enter number-2:<input type="text" name="number2" value=""/> <br>

             <input type="submit" value="SUBMIT"/>
        </form>
    </body>
</html>
```

Output:


(25) WhatsApp
MyCalculatorWebService Web Se
Calculator Web Service
localhost:8080/CalculatorWebServiceClient/index.html
ASUS Software Port...
MyASUS Software -...
WhatsApp
Calendar | Microsof...
YouTube
Implementation of...
Gmail
YouTube
Enter number-1: 100
Enter number-2: 20
SUBMIT


(25) WhatsApp
MyCalculatorWebService Web Se
Calculator Servlet Output
localhost:8080/CalculatorWebServiceClient/CalculatorServlet?number1=100&number2=20
ASUS Software Port...
MyASUS Software -...
WhatsApp
Calendar | Microsof...
YouTube
Implementation of...
Gmail
YouTube
Maps
Translate
Addition is 120.0
Subtraction is 80.0
Multiplication is 2000.0
Division is 2000.0





Conservice Web Service Tester

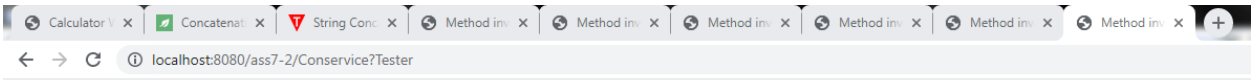
This form will allow you to test your web service implementation (WSDL File)

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

Methods :

public abstract java.lang.String com.myservice.Conservice.concat(java.lang.String,java.lang.String)

concat (kasturi , desai)



concat Method invocation

Method parameter(s)

Type	Value
java.lang.String	kasturi
java.lang.String	desai

Method returned

java.lang.String : "**kasturidesai**"

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:Concat xmlns:ns2="http://myservice.com/">
            <String1>kasturi</String1>
            <string2>desai</string2>
        </ns2:Concat>
    </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/>
```