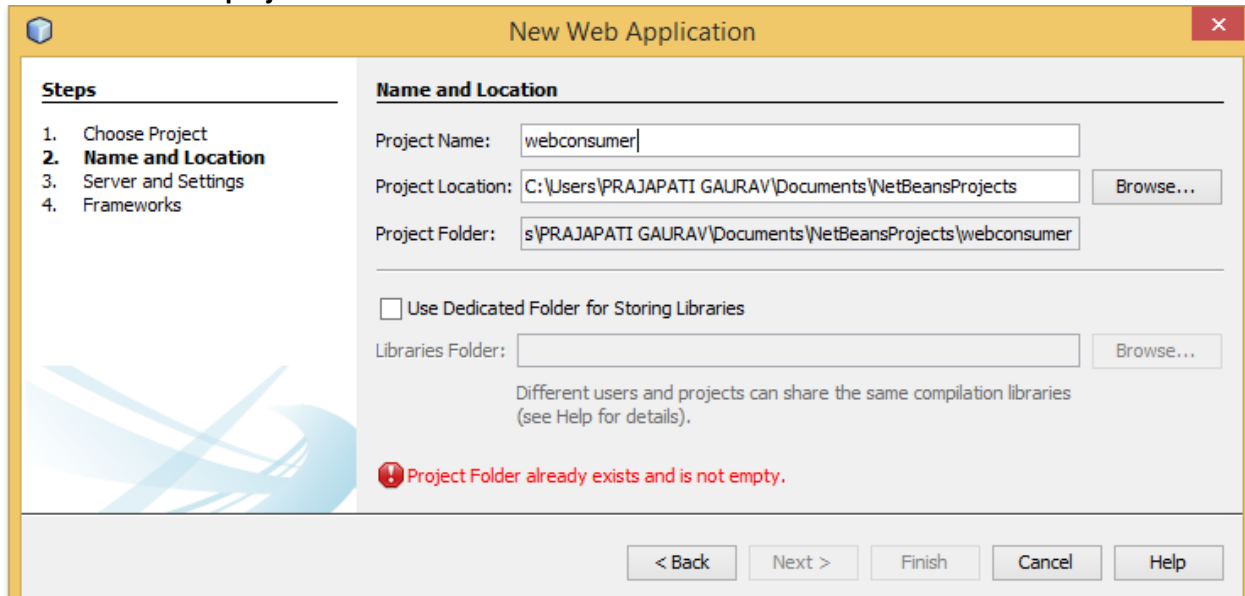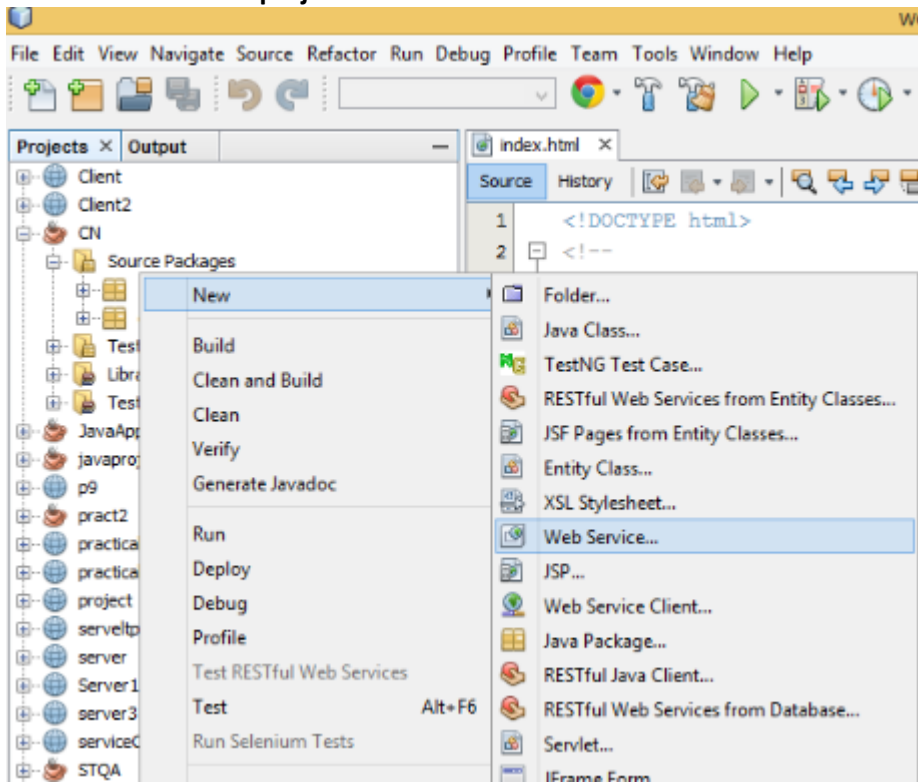# PRACTICAL :6

Aim: Write a JAX-WS web service to perform the following operations . Define a Servlet/JSP that continues the web service .

Create a new web project in NetBeans and named its webconsumer

Add web service in a project .
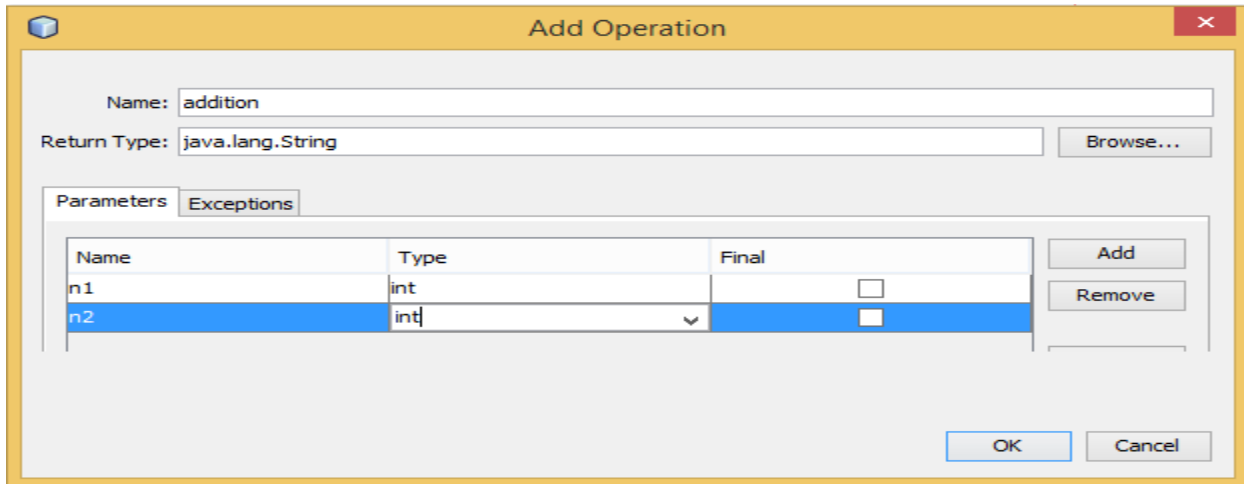
Click on Add operation.
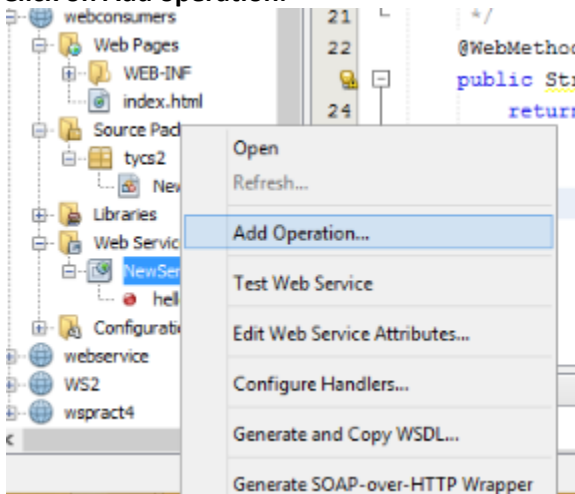
Name the operation as addition add parameters n1,n2 .follow the same for subtraction,multiplication,division.

Add Operation

Name: addition

Return Type: java.lang.String

Browse...
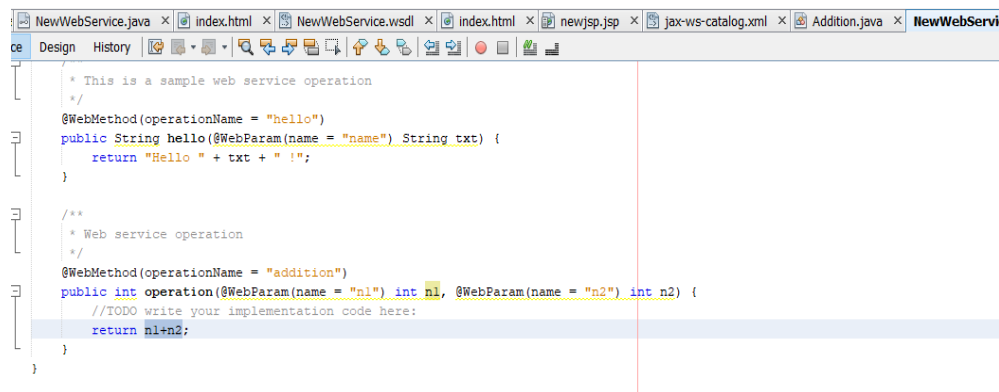
Parameters | Exceptions

Name	Type	Final
n1	int	☐
n2	int	☐

Add

Remove

OK   Cancel

Change the return type in code as per the operation .

NewWebService.java × index.html × NewWebService.wsdl × index.html × newjsp.jsp × jax-ws-catalog.xml × Addition.java × **NewWebServic**
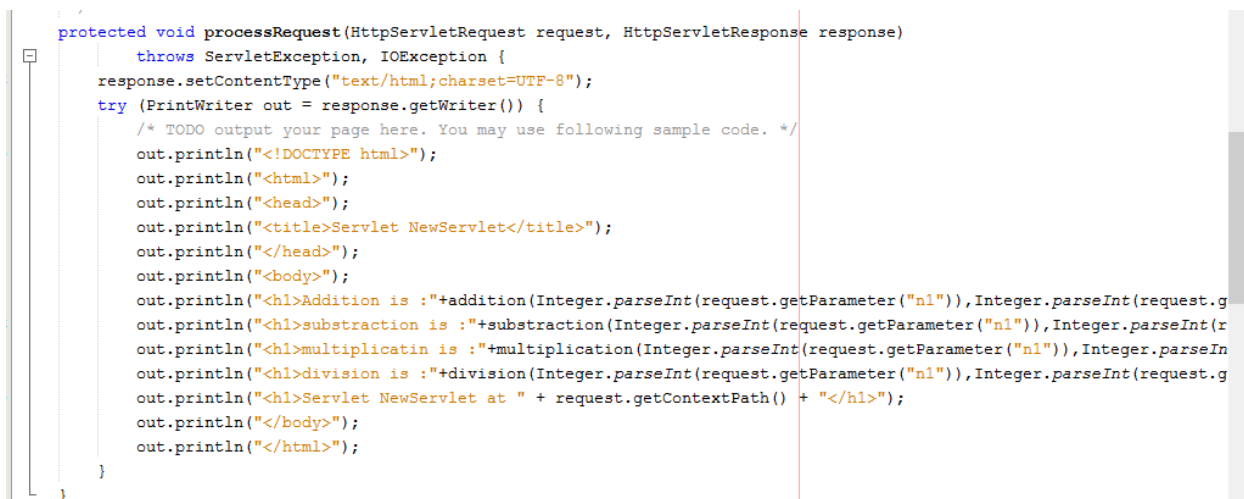
ce Design History

```java
 * This is a sample web service operation
 */
@WebMethod(operationName = "hello")
public String hello(@WebParam(name = "name") String txt) {
    return "Hello " + txt + " !";
}

/**
 * Web service operation
 */
@WebMethod(operationName = "addition")
public int operation(@WebParam(name = "n1") int n1, @WebParam(name = "n2") int n2) {
    //TODO write your implementation code here:
    return n1+n2;
}
```

Create a new servlet file add a code in it


```java
protected void processRequest(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
    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 NewServlet</title>");
        out.println("</head>");
        out.println("<body>");
        out.println("<h1>Addition is :"+addition(Integer.parseInt(request.getParameter("n1")),Integer.parseInt(request.g
        out.println("<h1>substraction is :"+substraction(Integer.parseInt(request.getParameter("n1")),Integer.parseInt(r
        out.println("<h1>multiplicatin is :"+multiplication(Integer.parseInt(request.getParameter("n1")),Integer.parseIn
        out.println("<h1>division is :"+division(Integer.parseInt(request.getParameter("n1")),Integer.parseInt(request.g
        out.println("<h1>Servlet NewServlet at " + request.getContextPath() + "</h1>");
        out.println("</body>");
        out.println("</html>");
    }
}
```
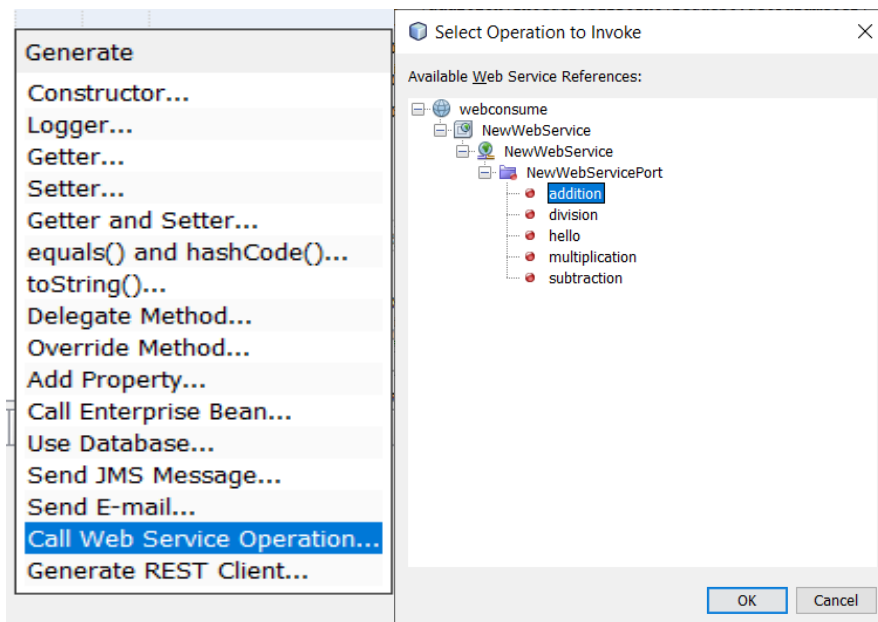
Code:

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

```
out.println("<html>");
out.println("<head>");
out.println("<title>Servlet NewServlet</title>");
out.println("</head>");
out.println("<body>");
out.println("<h1>Addition is
:"+addition(Integer.parseInt(request.getParameter("n1")),Integer.parseInt(request.getParameter("n2")))
+"</h1>");
out.println("<h1>substraction is
:"+substraction(Integer.parseInt(request.getParameter("n1")),Integer.parseInt(request.getParameter("n
2")))+"</h1>");
out.println("<h1>multiplicatin is
:"+multiplication(Integer.parseInt(request.getParameter("n1")),Integer.parseInt(request.getParameter("
n2")))+"</h1>");
out.println("<h1>division is
:"+division(Integer.parseInt(request.getParameter("n1")),Integer.parseInt(request.getParameter("n2")))
+"</h1>");
out.println("<h1>Servlet NewServlet at " + request.getContextPath() + "</h1>");
out.println("</body>");
out.println("</html>");
```

Insert code in Servlet. Add the 4 operations.

```
 54
 55 ⊞      HttpServlet methods. Click on the + sign on the left to edit the code.
 93
 94 ⊟          private int addition(int n1, int n2) {
 95                  return n1+n2;
 96          }
 97
 98 ⊟          private int division(int n1, int n2) {
 99                  return n1/n2;
100          }
101
102 ⊟          private int multiplication(int n1, int n2) {
103                  return n1*n2;
104          }
105
106 ⊟          private int substraction(int n1, int n2) {
107                  return n1-n2;
108          }
109
```

Output:

New Tab   ×   TODO supply a title

← → C ⓘ localhost:8080/webconsumer/

⚏ Apps   9780077418809.pdf   New Tab   History

Enter 1st number : 10
Enter 2nd number : 5
submit
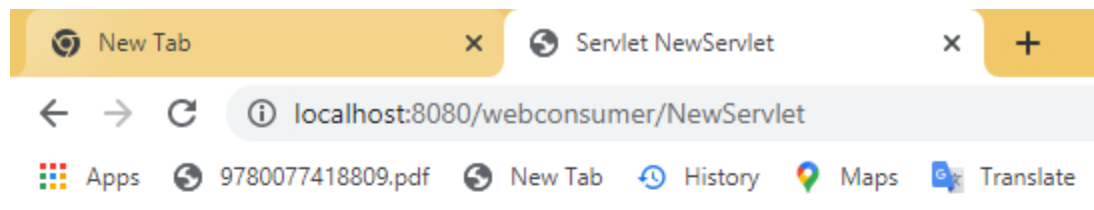
Addition is :15

substraction is :5

multiplicatin is :50

division is :2

Servlet NewServlet at /webconsumer