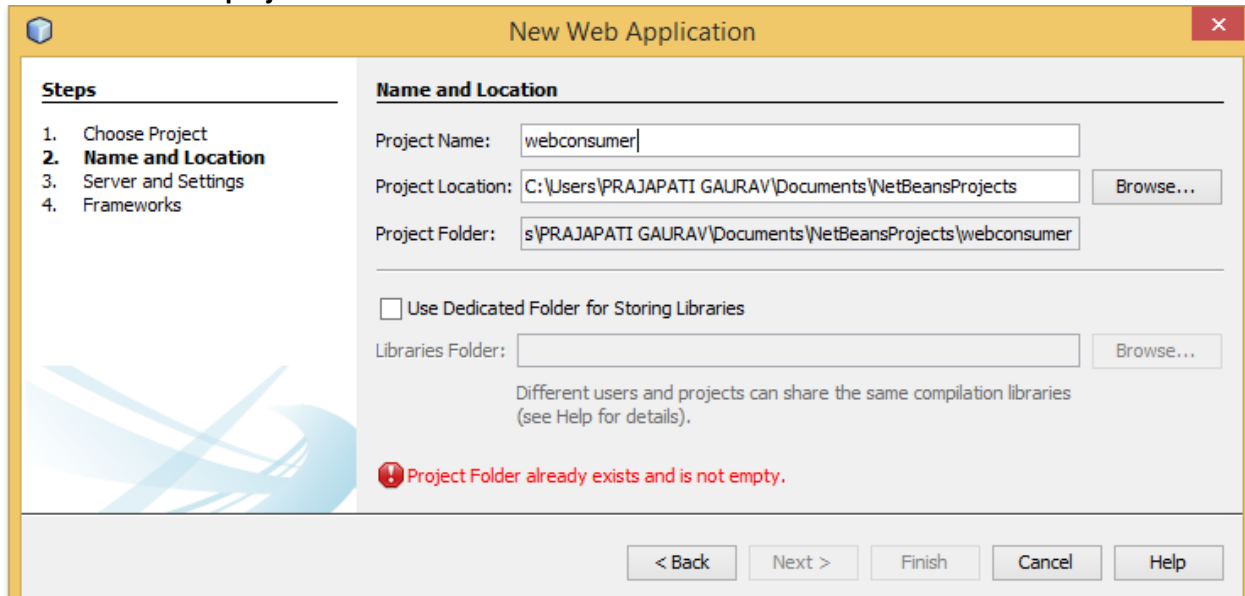


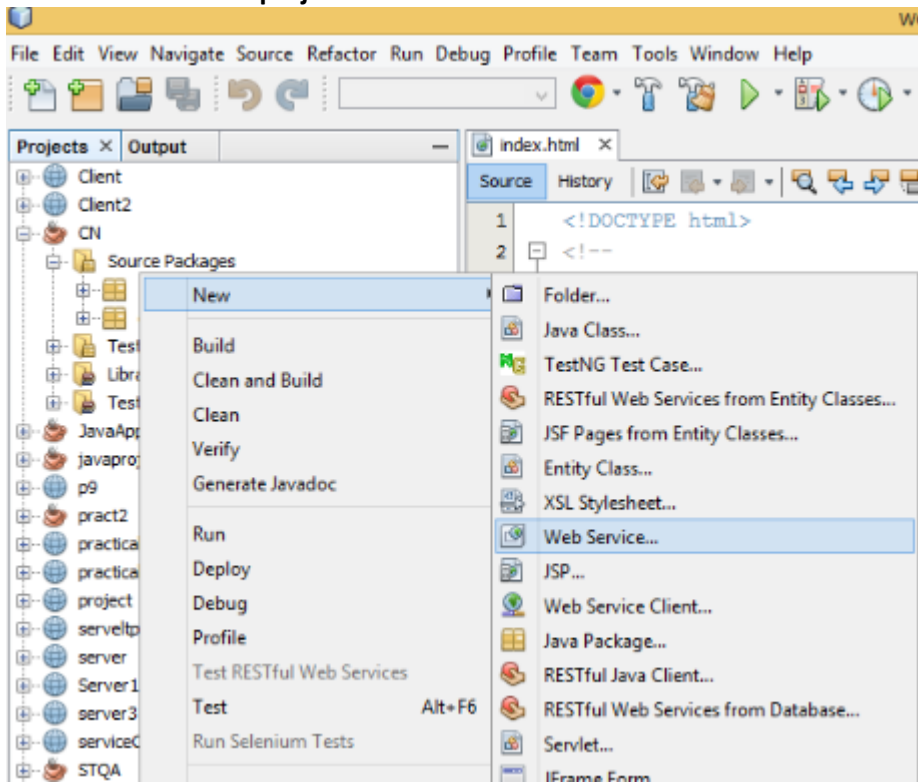
PRACTICAL :6

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 .



Steps

1. Choose File Type
2. **Name and Location**

Name and Location

Web Service Name:

Project:

Location:

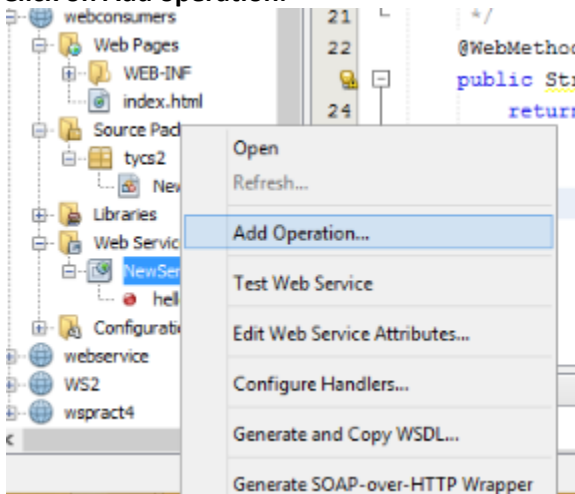
Package:

☒ Create Web Service from Scratch
☐ Create Web Service from Existing Session Bean

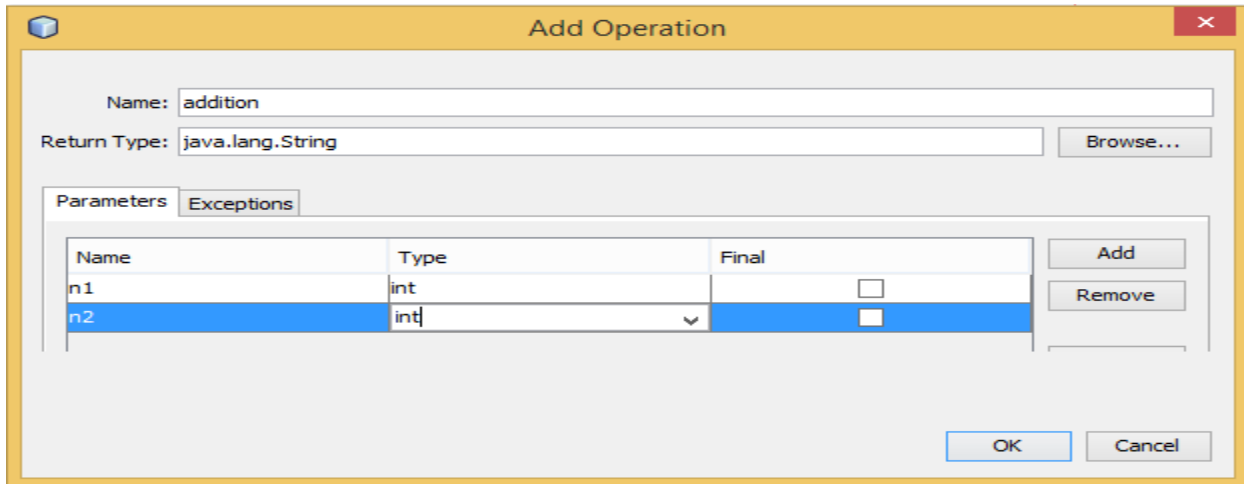
Enterprise Bean:

☐ Implement Web Service as Stateless Session Bean

Click on Add operation.



Name the operation as addition add parameters n1,n2 .follow the same for subtraction,multiplication,division.

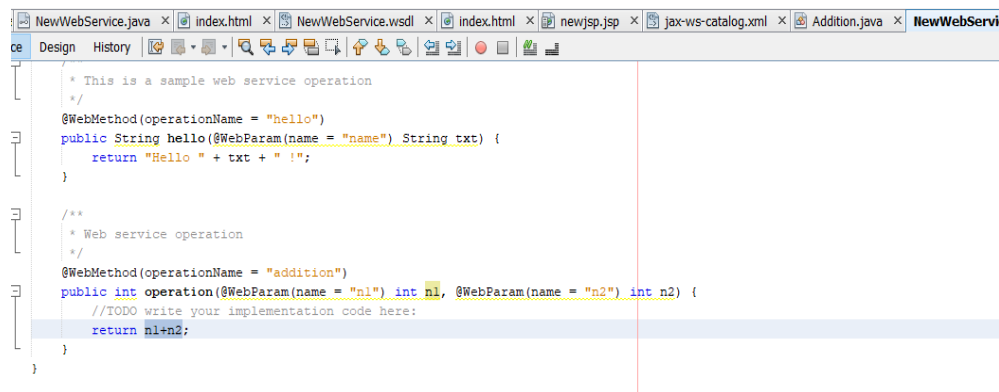


The 'Add Operation' dialog box is shown with the following details:

- Name:** addition
- Return Type:** java.lang.String
- Parameters:**

Name	Type	Final
n1	int	<input type="checkbox"/>
n2	int	<input type="checkbox"/>
- Buttons:** Add, Remove, OK, Cancel

Change the return type in code as per the operation .



The screenshot shows the Eclipse IDE with the 'Addition.java' file open. The code is as follows:

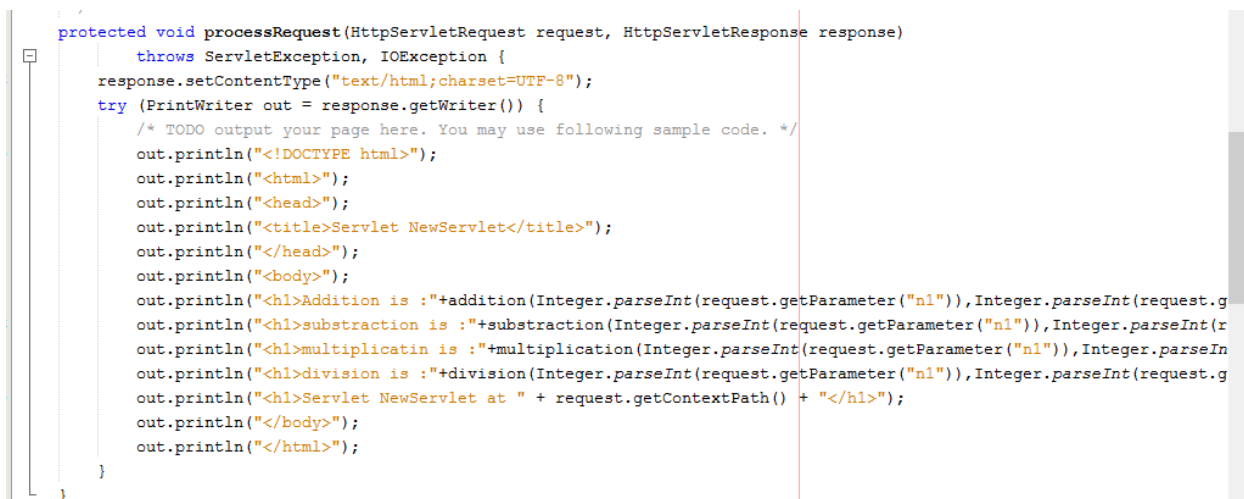
```

/* 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



The screenshot shows the Eclipse IDE with a new servlet file. The code is as follows:

```

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>subtraction is :"+subtraction(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:

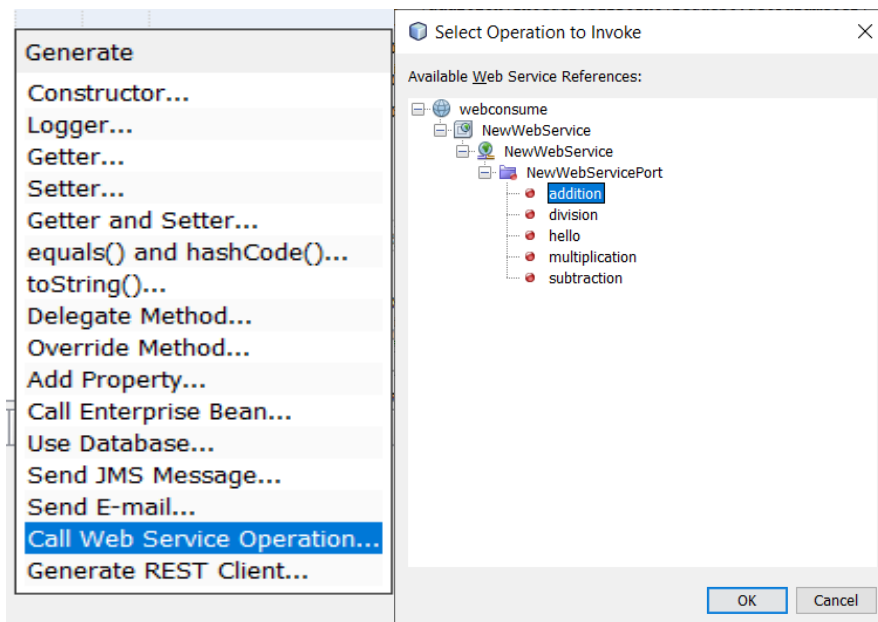
```
out.println("<!DOCTYPE html>");
```

```

        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
:" + subtraction(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>");

```

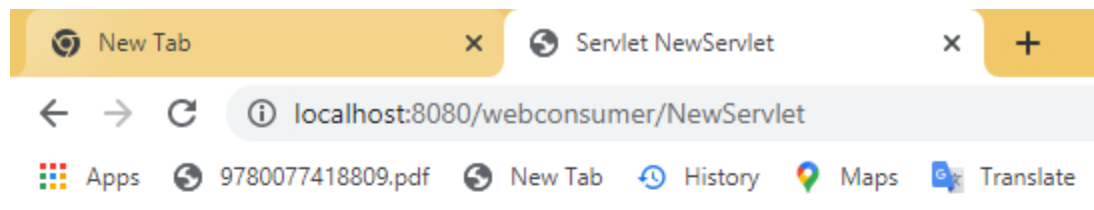
Insert code in Servlet. Add the 4 operations.



```
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 subtraction(int n1, int n2) {  
107     return n1-n2;  
108 }  
109
```

Output:

The screenshot shows a web browser window with two tabs: 'New Tab' and 'TODO supply a title'. The address bar displays 'localhost:8080/webconsumer/'. Below the address bar, there are links for 'Apps', a PDF file '9780077418809.pdf', 'New Tab', 'History', and a location pin icon. The main content area of the browser shows a web form with two input fields. The first field is labeled 'Enter 1st number :' and contains the value '10'. The second field is labeled 'Enter 2nd number :' and contains the value '5'. Below these fields is a button labeled 'submit'.



Addition is :15

substraction is :5

multiplicatin is :50

division is :2

Servlet NewServlet at /webconsumer