

## Experiment no 10

### Code:

#### ✓ Final Folder Structure

Your folder structure should now look like this:

```
pgsql                                                                    Copy Edit
Java_Calculator/
├─ index.html
├─ result.jsp
├─ WEB-INF/
│   └─ web.xml
│   └─ classes/
│       └─ CalculatorServlet.class
```

### Index.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Calculator</title>
</head>
<body>
  <form action="calc" method="post">
    Number 1: <input type="text" name="num1"><br>
    Number 2: <input type="text" name="num2"><br>
    Operation:
    <select name="op">
      <option value="+">Add</option>
      <option value="-">Subtract</option>
      <option value="*">Multiply</option>
      <option value="/">Divide</option>
    </select><br>
    <input type="submit" value="Calculate">
  </form>
</body>
</html>
```

### CalculatorServlet.java

```
import java.io.*;
import jakarta.servlet.*;
```

```

import jakarta.servlet.http.*;

public class CalculatorServlet extends HttpServlet {
    public void doPost(HttpServletRequest request, HttpServletResponse response) throws
    ServletException, IOException {
        int n1 = Integer.parseInt(request.getParameter("num1"));
        int n2 = Integer.parseInt(request.getParameter("num2"));
        String op = request.getParameter("op");
        int result = 0;

        switch (op) {
            case "+": result = n1 + n2; break;
            case "-": result = n1 - n2; break;
            case "*": result = n1 * n2; break;
            case "/": result = n1 / n2; break;
        }

        request.setAttribute("result", result);
        RequestDispatcher rd = request.getRequestDispatcher("result.jsp");
        rd.forward(request, response);
    }
}

```

## Result.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8" %>
<html>
<head><title>Result</title></head>
<body>
    <h2>Result: <%= request.getAttribute("result") %></h2>
    <a href="index.html">Go Back</a>
</body>
</html>

```

## Web.xml

```

<web-app xmlns="https://jakarta.ee/xml/ns/jakartaee" version="6.0">
    <servlet>
        <servlet-name>calc</servlet-name>
        <servlet-class>CalculatorServlet</servlet-class>
    </servlet>
    <servlet-mapping>
        <servlet-name>calc</servlet-name>
        <url-pattern>/calc</url-pattern>
    </servlet-mapping>
</web-app>

```

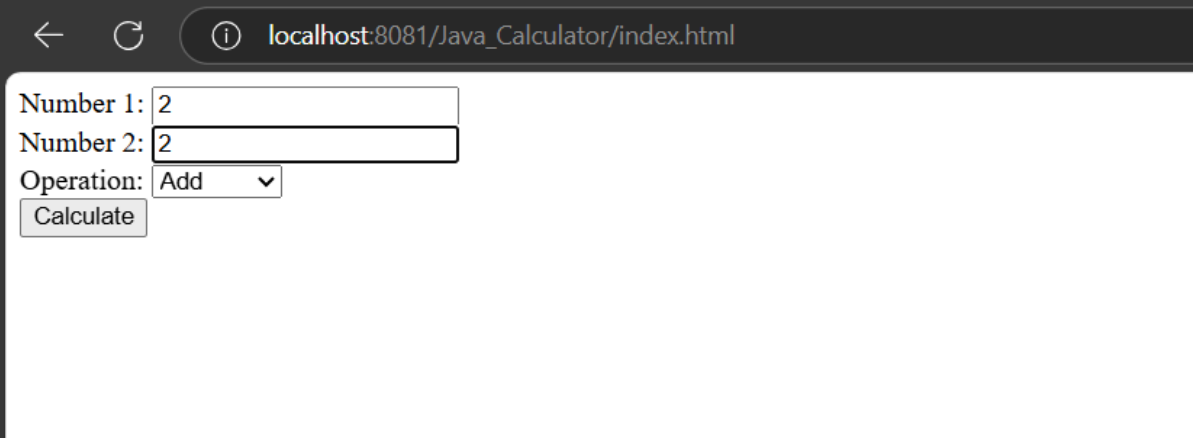
```
</servlet-mapping>
</web-app>
```

## Commands to Run:

```
PS D:\Java_Calculator> cd WEB-INF\classes
PS D:\Java_Calculator\WEB-INF\classes> javac -cp ".;C:\Program Files\Apache Software
Foundation\Tomcat 10.1\lib\jakarta.servlet-api-6.0.0.jar" CalculatorServlet.java
>>
```

```
PS C:\Users\Admin> cd "C:\Program Files\Apache Software Foundation\Tomcat 10.1\bin"
PS C:\Program Files\Apache Software Foundation\Tomcat 10.1\bin> $env:JAVA_HOME =
"C:\Program Files\Java\jdk-22"
PS C:\Program Files\Apache Software Foundation\Tomcat 10.1\bin> .\startup.bat
Using CATALINA_BASE: "C:\Program Files\Apache Software Foundation\Tomcat 10.1"
Using CATALINA_HOME: "C:\Program Files\Apache Software Foundation\Tomcat 10.1"
Using CATALINA_TMPDIR: "C:\Program Files\Apache Software Foundation\Tomcat
10.1\temp"
Using JRE_HOME: "C:\Program Files\Java\jdk-22"
Using CLASSPATH: "C:\Program Files\Apache Software Foundation\Tomcat
10.1\bin\bootstrap.jar;C:\Program Files\Apache Software Foundation\Tomcat
10.1\bin\tomcat-juli.jar"
Using CATALINA_OPTS: ""
```

## Output:



The screenshot shows a web browser window with the address bar displaying "localhost:8081/Java\_Calculator/index.html". The page content includes a form with the following elements:

- "Number 1:" followed by an input field containing the value "2".
- "Number 2:" followed by an input field containing the value "2".
- "Operation:" followed by a dropdown menu currently showing "Add".
- A "Calculate" button located below the operation dropdown.



localhost:8081/Java\_Calculator/calc

**Result: 4**

[Go Back](#)