Experiment 3.3

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1.Aim: Create JSP application for addition, multiplication and division..

2.Software/Hardware Requirements: VS Code or Eclipse

3. Algorithm/ PsuedoCode:

STEP 1- Create a index.jsp file in a webapp directory.

STEP 2 - Create a package named as fun and create a java file named as functions.java .

STEP 3 - functions.java file contains the logic for Performing the Operation such as addition, Division and Subtraction.

STEP 4- At Last start the server and display the output on the web browser.

STEP 5- EXIT

CODE:

Index.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Calculator</title>
```

```
<style> body{
background: black;    color:
white;
} h1{
  text-align: center;
} .Paramter{
  border: 2px solid white;background: blue;    padding: 5px;
max-width: 500px;    margin: auto;    font-size: 19px;
} button{
  position: relative;    left: 170px;
  margin: 10px; width: 60px;height:30px;
cursor:pointer;border-radius:5px;
} button:hover{
background: orange;
}
</style>
</head>
<body>
    <br/>
    <div class="Paramter">
        <form name="funcitons" action="<%=request.getContextPath()%>/functions" method="post" >
            <h1>Mathematical Operation</h1>
            <input type="radio" id="add" name="fun" value="+"> Addition <br/>            <input type="radio"
id="mul" name="fun" value="*"> Multiplication <br/>
            <input type="radio" id="sub" name="fun" value="-"> Subtraction <br/><br/>
            Enter the First Value:  <input type="number" name="fst"><br/><br/>
            Enter the Second Value: <input type="number" name="snd"><br/>
            <button type="submit">Submit</button>
            <button value="Reset">Reset</button>
        </form>
        <h1>Ans = <%=request.getAttribute("ans") %></h1>
    </div>

</body> </html>
```

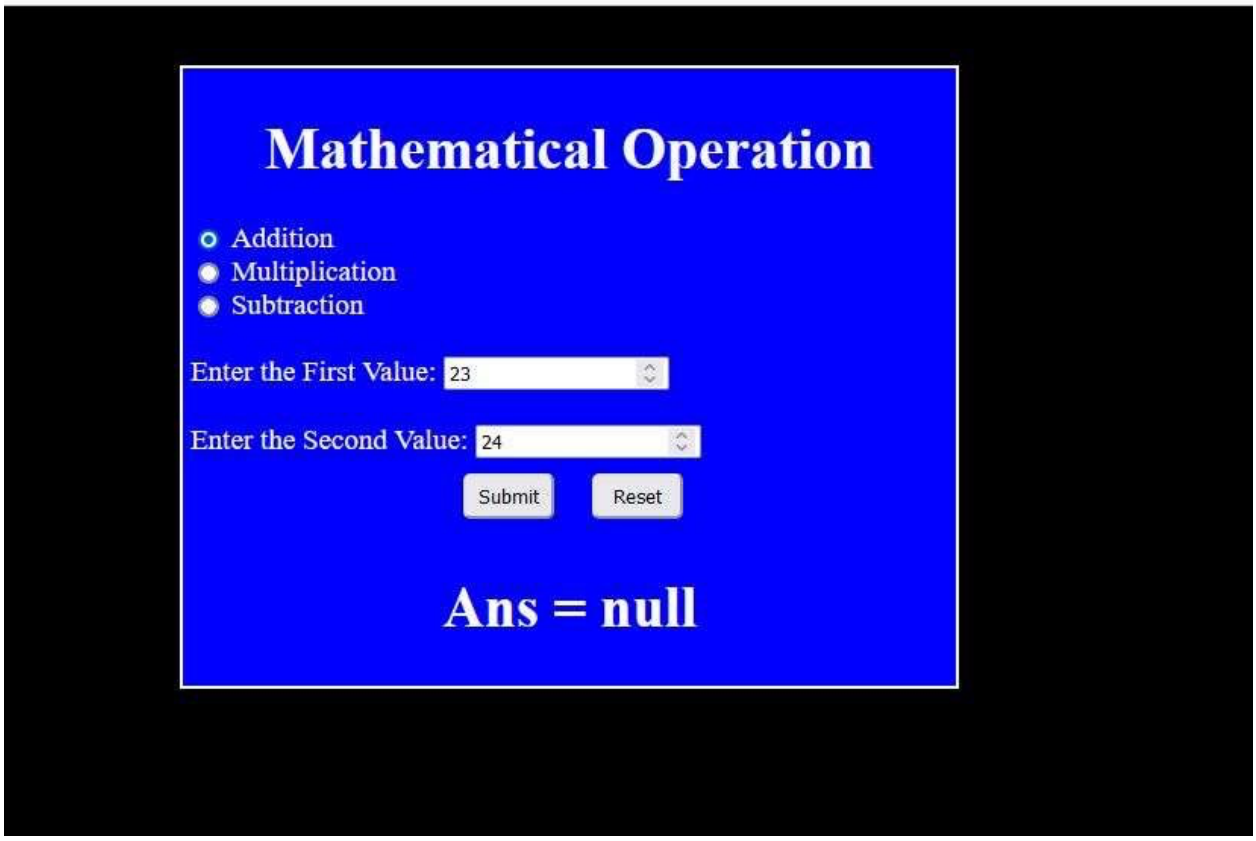
Functions.java

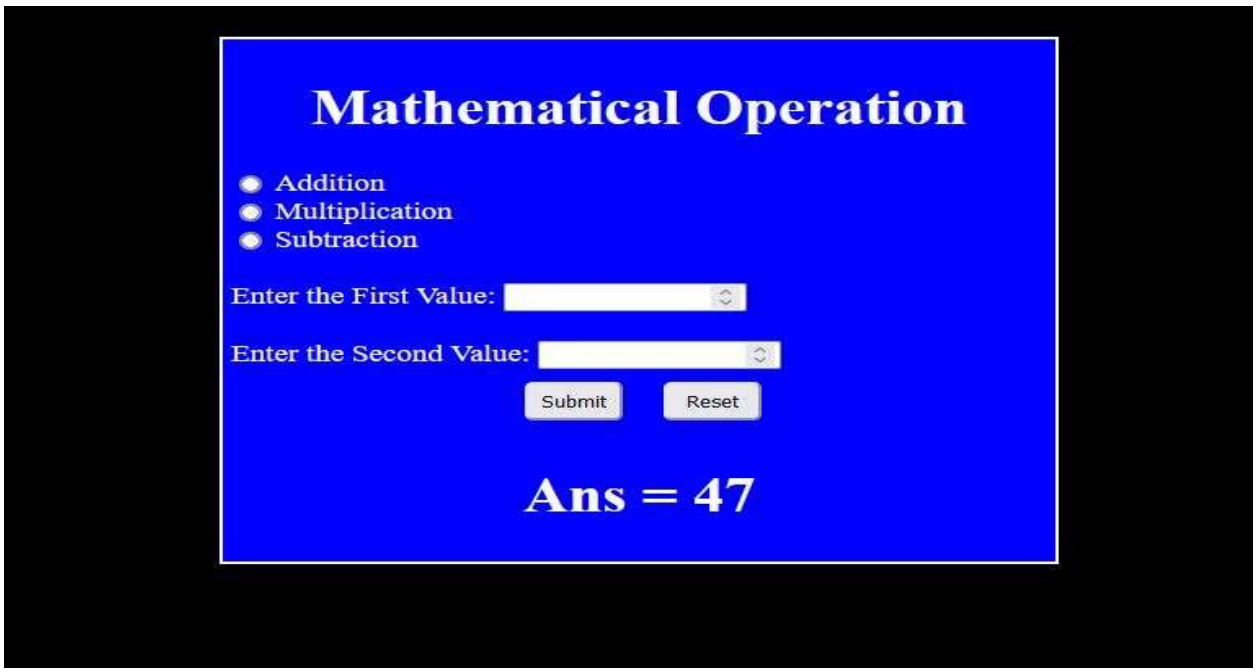
```
package fun;

 import java.io.IOException; import

javax.servlet.ServletException; import

javax.servlet.annotation.WebServlet; import

javax.servlet.http.HttpServlet; import
```

```
javax.servlet.http.HttpServletRequest; import

javax.servlet.http.HttpServletResponse;


/**

 * Servlet implementation class functions

 */

@WebServlet(name="functions",urlPatterns={"/functions"}) public class

functions extends HttpServlet {

        protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {

                        String a=request.getParameter("fst");

                String b=request.getParameter("snd");                String

fun=request.getParameter("fun");

                 try {

                        System.out.println(a+fun+b);

                    int i1=Integer.parseInt(a);

        int i2=Integer.parseInt(b);

                      int ans=0;

                        if(fun.equals("+")) {

                              ans=i1+i2;

                          }else if(fun.equals("-")) {

                              ans=i1-i2;

                          }else if(fun.equals("*")) {

                              ans=i1*i2;

                    }
```

```
//                                  System.out.println(ans);

request.setAttribute("ans", ans);


                            request.getRequestDispatcher("index.jsp").forward(request,response);

                             }catch(Exception e) {

                                        System.out.println(e);

                        }


            }


}
```

OUTPUT:


Mathematical Operation
Addition
Multiplication
Subtraction
Enter the First Value: 23
Enter the Second Value: 24
Submit
Reset
Ans = null


Mathematical Operation
Addition
Multiplication
Subtraction
Enter the First Value:
Enter the Second Value:
Submit
Reset
Ans = 47

Learning outcomes (What I have learnt):

1. Learn About the servlet
2. Learn about jsp and dynamic web project
3. Learn about the tomcat server and its integrations with the java.