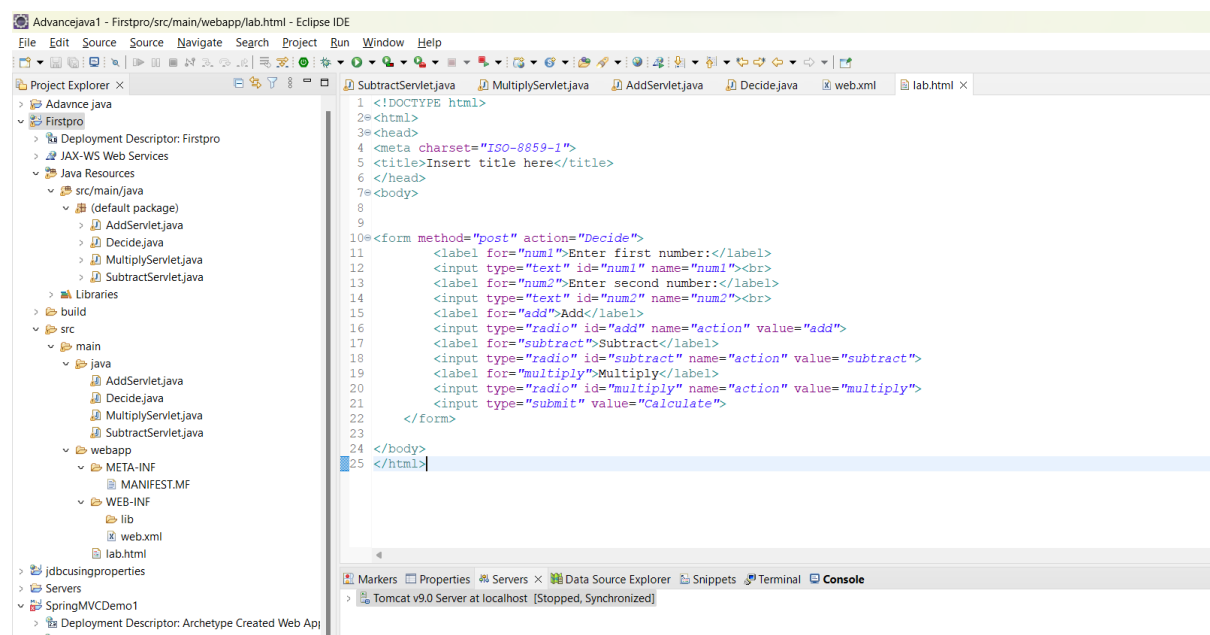


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# 1. Write a java servlet program to do following :

1) Take 2 numbers from user on HTML form and choice of action using 3 radiobuttons with choice as "ADD" , "SUBTRACT" , "MULTIPLY" (form action -> "takeinput")



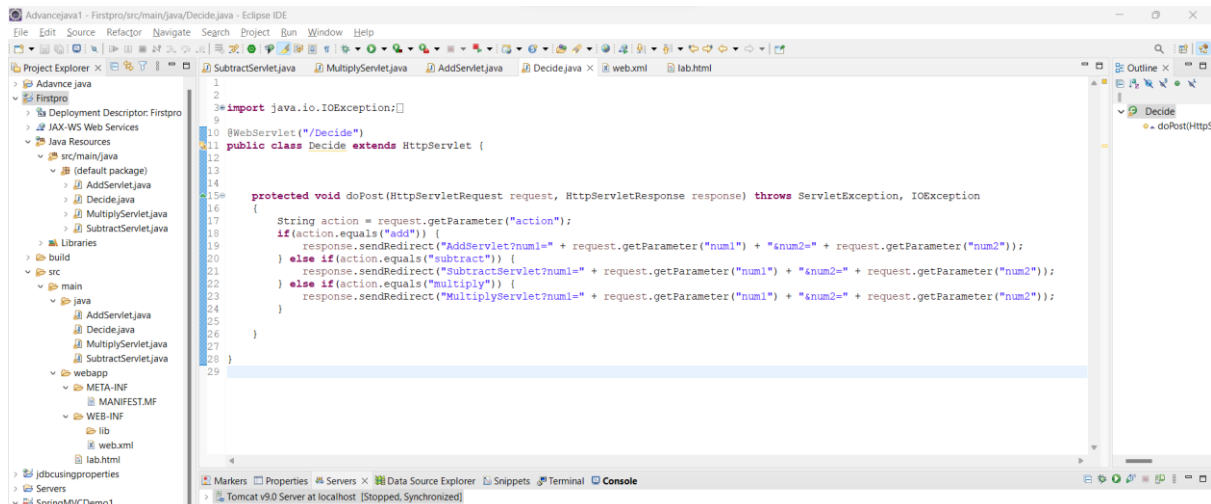
The screenshot shows the Eclipse IDE with a project named 'Advancejava1'. The 'Project Explorer' on the left shows the project structure, including 'src/main/webapp/lab.html'. The 'lab.html' file is open in the editor, displaying the following HTML code:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <meta charset="ISO-8859-1">
5 <title>Insert title here</title>
6 </head>
7 <body>
8
9
10 <form method="post" action="Decide">
11 <label for="num1">Enter first number:</label>
12 <input type="text" id="num1" name="num1"><br>
13 <label for="num2">Enter second number:</label>
14 <input type="text" id="num2" name="num2"><br>
15 <label for="add">Add</label>
16 <input type="radio" id="add" name="action" value="add">
17 <label for="subtract">Subtract</label>
18 <input type="radio" id="subtract" name="action" value="subtract">
19 <label for="multiply">Multiply</label>
20 <input type="radio" id="multiply" name="action" value="multiply">
21 <input type="submit" value="Calculate">
22 </form>
23
24 </body>
25 </html>
```

The IDE also shows the 'Servers' tab at the bottom, indicating that the Tomcat v9.0 Server at localhost is stopped and synchronized.

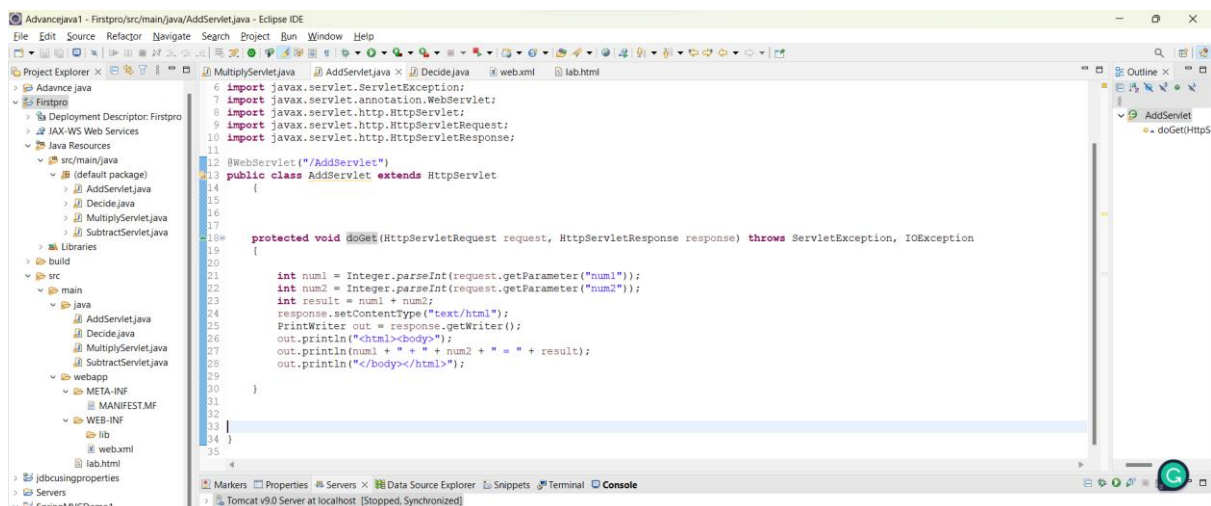
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## 2) This action must map to Decide servlet



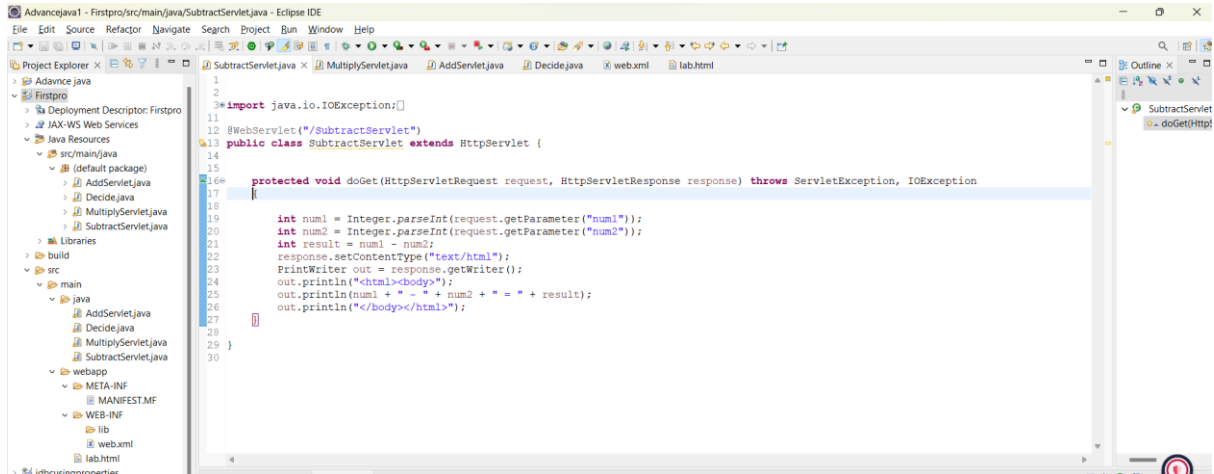
## 3) There should be 3 Servlets : AddServlet , SubtractServlet , MultiplyServlet

### AddServlet



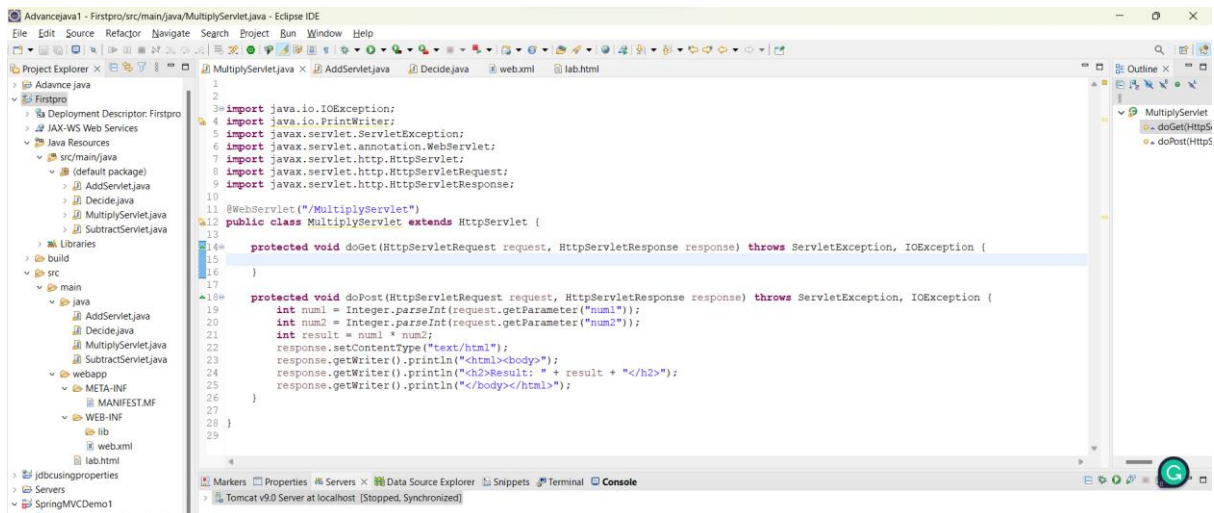
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## SubtractServlet



```
1
2
3import java.io.IOException;
4
5
6
7
8
9
10
11@WebServlet("/SubtractServlet")
12public class SubtractServlet extends HttpServlet {
13
14
15
16protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException
17{
18
19    int num1 = Integer.parseInt(request.getParameter("num1"));
20    int num2 = Integer.parseInt(request.getParameter("num2"));
21    int result = num1 - num2;
22    response.setContentType("text/html");
23    PrintWriter out = response.getWriter();
24    out.println("<html><body>");
25    out.println(num1 + " - " + num2 + " = " + result);
26    out.println("</body></html>");
27
28
29
30}
```

## MultiplyServlet

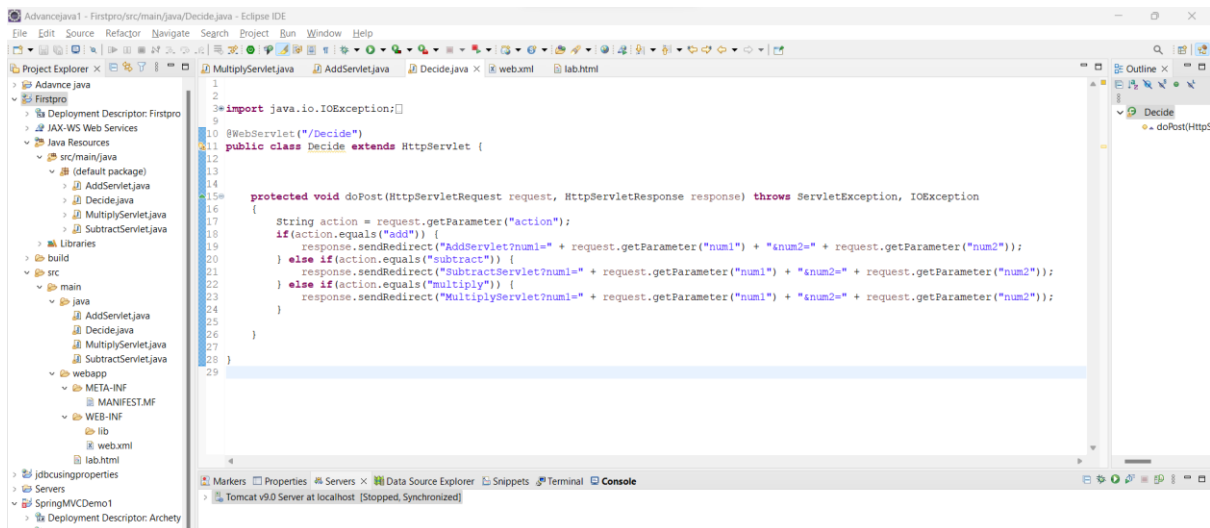


```
1
2
3import java.io.IOException;
4import java.io.PrintWriter;
5import javax.servlet.ServletException;
6import javax.servlet.annotation.WebServlet;
7import javax.servlet.http.HttpServlet;
8import javax.servlet.http.HttpServletRequest;
9import javax.servlet.http.HttpServletResponse;
10
11@WebServlet("/MultiplyServlet")
12public class MultiplyServlet extends HttpServlet {
13
14
15
16protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
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Name: Hemal Bagwe  
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4) On Decide servlet check which choice has been done by the user and depending on the choice redirect the user to the corresponding servlet and display the result of the operation.



```
1
2
3 import java.io.IOException;
4
5 @WebServlet("/Decide")
6 public class Decide extends HttpServlet {
7
8     protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException
9     {
10         String action = request.getParameter("action");
11         if(action.equals("add")) {
12             response.sendRedirect("AddServlet?num1=" + request.getParameter("num1") + "&num2=" + request.getParameter("num2"));
13         } else if(action.equals("subtract")) {
14             response.sendRedirect("SubtractServlet?num1=" + request.getParameter("num1") + "&num2=" + request.getParameter("num2"));
15         } else if(action.equals("multiply")) {
16             response.sendRedirect("MultiplyServlet?num1=" + request.getParameter("num1") + "&num2=" + request.getParameter("num2"));
17         }
18     }
19 }
20
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```



Lab Examination- Web Based Java

localhost:8080/Firstpro/

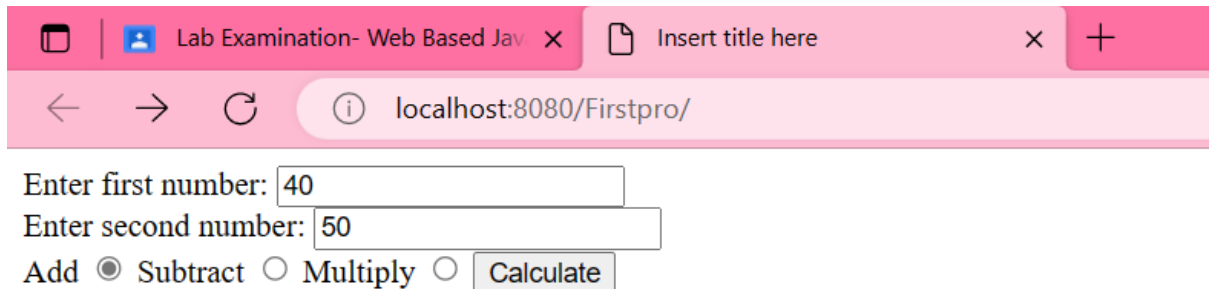
Enter first number:

Enter second number:

Add ☐ Subtract ☐ Multiply ☐

Name: Hemal Bagwe  
Prn: 220960920009

## Addition—



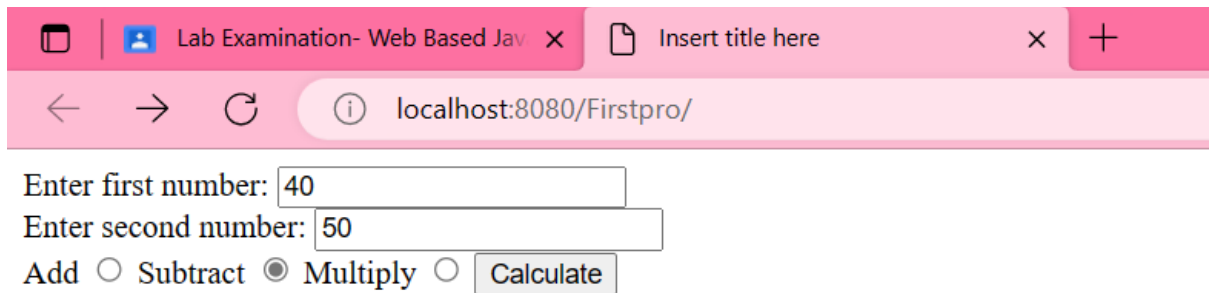
A screenshot of a web browser window. The address bar shows 'localhost:8080/Firstpro/'. The page contains two input fields: 'Enter first number:' with the value '40' and 'Enter second number:' with the value '50'. Below these fields are four radio buttons labeled 'Add', 'Subtract', 'Multiply', and 'Calculate'. The 'Add' radio button is selected. A 'Calculate' button is located to the right of the radio buttons.



A screenshot of a web browser window showing the result of the addition. The address bar shows 'localhost:8080/Firstpro/AddServlet?num1=40&num2=50'. The page displays the result '40 + 50 = 90'.

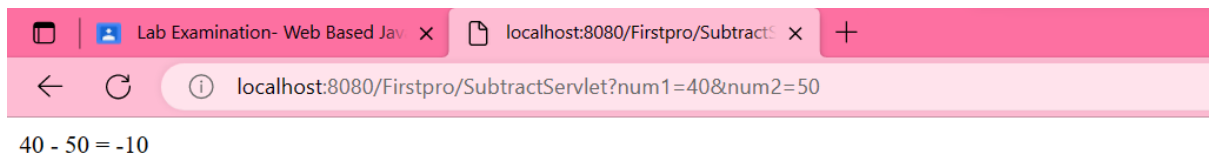
Name: Hemal Bagwe  
Prn: 220960920009

## Subtraction



A screenshot of a web browser window. The address bar shows 'localhost:8080/Firstpro/'. The page contains two input fields: 'Enter first number:' with the value '40' and 'Enter second number:' with the value '50'. Below these fields are four radio buttons labeled 'Add', 'Subtract', 'Multiply', and 'Calculate'. The 'Multiply' radio button is selected. A 'Calculate' button is located to the right of the radio buttons.

Enter first number: 40  
Enter second number: 50  
Add ☐ Subtract ☒ Multiply ☐ Calculate

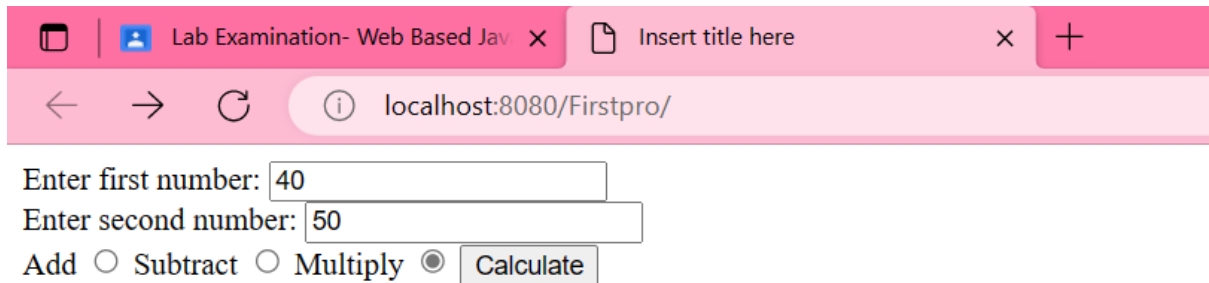


A screenshot of a web browser window. The address bar shows 'localhost:8080/Firstpro/SubtractServlet?num1=40&num2=50'. The page displays the result of the subtraction: '40 - 50 = -10'.

40 - 50 = -10

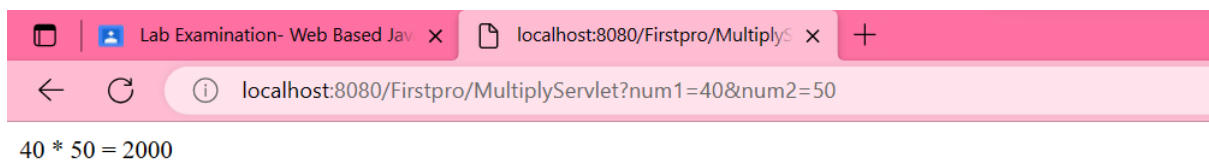
Name: Hemal Bagwe  
Prn: 220960920009

## Multiply—



A screenshot of a web browser window. The address bar shows 'localhost:8080/Firstpro/'. The page contains two input fields: 'Enter first number:' with the value '40' and 'Enter second number:' with the value '50'. Below these are three radio buttons labeled 'Add', 'Subtract', and 'Multiply', with 'Multiply' being selected. A 'Calculate' button is positioned to the right of the radio buttons.

Enter first number: 40  
Enter second number: 50  
Add ☐ Subtract ☐ Multiply ☒ Calculate



A screenshot of a web browser window showing the result of the calculation. The address bar shows 'localhost:8080/Firstpro/MultiplyServlet?num1=40&num2=50'. The page displays the result '40 \* 50 = 2000'.

40 \* 50 = 2000