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Practical 07

[A] Write a program in JavaScript to perform arithmetic operations.

Theory:

HTML Form: The HTML <form> element provides a structure for user input. It contains two input fields where users can enter numeric values for calculation. **Input Fields:** Within the form, there are two input fields (<input>) labeled "value of x" and "value of y". These fields allow users to input numerical values.

Buttons: There are four buttons labeled "addition", "subtraction", "multiplication", and "division". These buttons trigger JavaScript functions when clicked.

JavaScript Functions: Each button is associated with a JavaScript function (add(), sub(), mul(), div()). These functions perform arithmetic operations based on the values entered in the input fields and display the result in the <textarea> element labeled "Answer".

Parsing Input Values: Inside each function, the parseInt() or parseFloat() functions are used to convert the input field values from strings to integers or floating-point numbers, allowing mathematical operations to be performed.

Displaying Results: After performing the arithmetic operation, the result is displayed in the <textarea> element labeled "Answer" using document.getElementById("box").value.

Error Handling: In the divide() function, there's a check to prevent division by zero. If the user attempts to divide by zero, an error message is displayed instead of the result.

code:

```
<!DOCTYPE html>
<html lang="en">
<head><title>calculator</title></head>
<body>

  <form>
    <label for="fnumber">value of x :</label>
    <input type="number" id="fnumber"><br><br>
    <label for="snumber">value of y :</label>
    <input type="number" id="snumber"><br><br>
  </form>

  <button onclick="add()">addition</button>
  <button onclick="sub()">subtraction</button>
```

```

<button onclick="mul()">multiplication</button>
<button onclick="div()">division</button><br><br>

<label for="box">Answer :</label>
<textarea id="box" rows="2" cols="15"></textarea>
<script>
    function add() {
        var p1 = parseInt(document.getElementById("fnumber").value);
        var p2 = parseInt(document.getElementById("snumber").value);
        document.getElementById("box").value = p1 + p2;
    }
    function subtract() {
        var p1 = parseInt(document.getElementById("fnumber").value);
        var p2 = parseInt(document.getElementById("snumber").value);
        document.getElementById("box").value = p1 - p2;
    }
    function multiply() {
        var p1 = parseInt(document.getElementById("fnumber").value);
        var p2 = parseInt(document.getElementById("snumber").value);
        document.getElementById("box").value = p1 * p2;
    }
    function divide() {
        var p1 = parseFloat(document.getElementById("fnumber").value);
        var p2 = parseFloat(document.getElementById("snumber").value);
        if (p2 === 0) {
            document.getElementById("box").value = "Cannot divide by
zero";
        } else {
            document.getElementById("box").value = p1 / p2;
        }
    }
</script>

</body>
</html>

```

Output:

value of x :

value of y :

addition

subtraction

multiplication

division

Answer :