index.html

```
<!DOCTYPE html>
<html>
<meta lang="en">
<meta charset="UTF-8">
<head>
    <title>Week 4: JavaScript</title>
    <link rel="stylesheet" href="style.css">
    <link rel="icon" href="https://icon-library.com/images/icon-ninja/icon-ninja-15.jpg">

    <script>
        function sumsort() {
            let size = parseInt(prompt("Kindly enter the size of elements in the array: ")
);
            var arr=[],sorted=[];
            var sum=0,temp;
            for(let i = 0; i < size; i++)
            {
                arr.push(+prompt("Enter element " + (i+1) + ": "));
                sorted[i]=arr[i];
                sum+=arr[i];
            }
            for(let i = 0; i < size; i++)
            {
                for(let j = 0; j < size-i-1; j++)
                {
                    if(sorted[j]>sorted[j+1])
                    {
                        temp=sorted[j];
                        sorted[j]=sorted[j+1];
                        sorted[j+1]=temp;
                    }
                }
            }
            alert('Given array: ' + arr.join(', ') + "\n\nSum of elements: " + sum + "
\nSorted array: " +sorted.join(', '));
        }

        function grades() {
            let studsize = parseInt(prompt("Enter the number of students in the class: "))
;
            let subsize = parseInt(prompt("Enter the number of subjects: "));
            let classSumMarks = 0;
            let classSumGrade = 0;
            let output = "<h3>Grades:</h3>";

            for (let i = 1; i <= studsize; i++) {
                let studSumMarks = 0;
                output += "<h4>Student " + i + ":</h4><ul>";
                for (let j = 1; j <= subsize; j++) {
                    let grade = parseFloat(prompt("Enter the grade of Student " + i + "
for Subject " + j + ": "));
                    output += "<li>Subject " + j + ": " + grade + "</li>";
                    studSumMarks += grade;
                }
                let studAvgMarks = studSumMarks / subsize;
                let gradeLetter = calculateGradeLetter(studAvgMarks);
                classSumMarks += studAvgMarks;
                classSumGrade += gradeLetter.charCodeAt(0);
```

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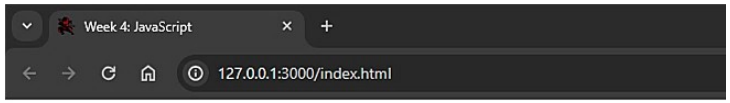
                output += "<li><strong>Student Average Marks:</strong> " + studAvgMarks.toFixed(2) + "</li>";
                output += "<li><strong>Student Grade:</strong> " + gradeLetter + "</li></ul>";
            }
            let classAvgMarks = classSumMarks / studsize;
            let classAvgGrade = String.fromCharCode(Math.round(classSumGrade / studsize));
            output += "<h3>Class Average Marks:</h3><p>" + classAvgMarks.toFixed(2) + "</p>";
            output += "<h3>Class Average Grade:</h3><p>" + classAvgGrade + "</p>";
            document.getElementById("gradesOutput").innerHTML = output;
        }

        function calculateGradeLetter(average) {
            if (average >= 90) {
                return "A+";
            } else if (average >= 80) {
                return "A";
            } else if (average >= 70) {
                return "B";
            } else if (average >= 60) {
                return "C";
            } else if (average >= 50) {
                return "D";
            } else if (average >= 40) {
                return "E";
            } else {
                return "F";
            }
        }
    </script>
</head>

<body>
    <hr style="color:darkgrey ; width: auto; height: 5px; background-color:darkgrey ;">
    <div style="text-align: justify;">
        <h5> (Q1) This is a Javascript program to do the following:-
            <ol type="a">
                <li>Find the sum of array</li>
                <li>Implement Bubble Sorting using a function</li>
            </ol>
            An alert is used to print the output
        </h5>
    </div>
    <button onclick="sumsort()">Calculate Sum & Sort Elements </button>

    <hr style="color:darkgrey ; width: auto; height: 5px; background-color:darkgrey ;">
    <div style="text-align: justify;">
        <h5> (Q2) This is a Javascript program to do the following:-
            <ol type="a">
                <li>Calculate grades of students</li>
                <li>Calculate average grade of class</li>
            </ol>
            Use prompt to get input, use document.write() to display the output
        </h5>
    </div>
    <button onclick="grades()">Calculate Grades</button>
    <div id="gradesOutput" style="text-align: justify;"></div>
</body>
</html>
```



(Q1) This is a Javascript program to do the following:-

a. **Find the sum of array**
b. **Implement Bubble Sorting using a function**

An alert is used to print the output

Calculate Sum & Sort Elements

(Q2) This is a Javascript program to do the following:-

a. **Calculate grades of students**
b. **Calculate average grade of class**

Use prompt to get input, use document.write() to display the output

Calculate Grades

Grades:

Student 1:

- Subject 1: 96
- Subject 2: 86
- Subject 3: 91
- **Student Average Marks:** 91.00
- **Student Grade:** A+

Student 2:

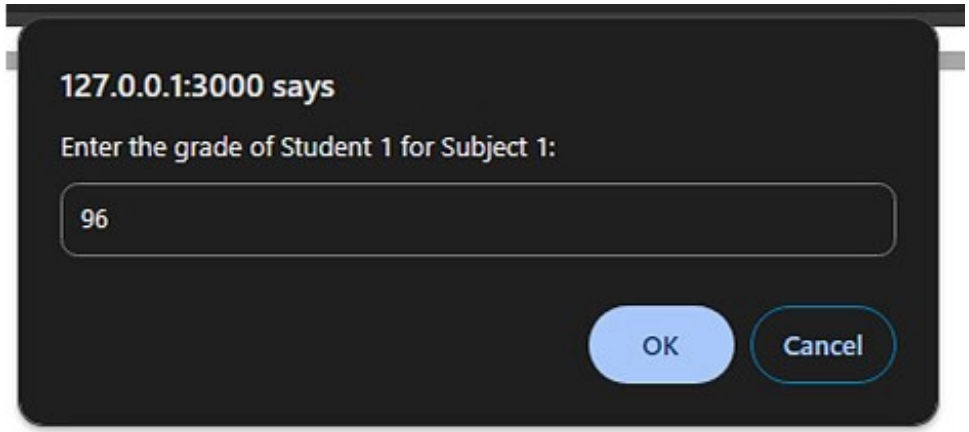
- Subject 1: 85
- Subject 2: 75
- Subject 3: 69
- **Student Average Marks:** 76.33
- **Student Grade:** B

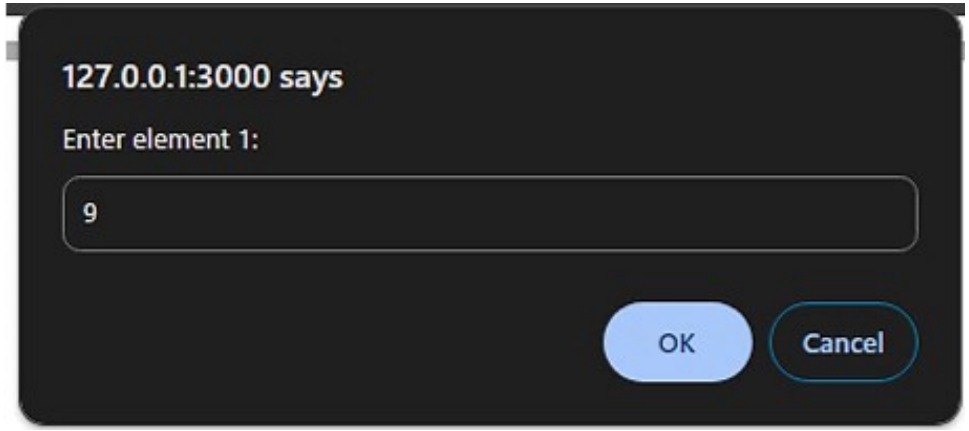
Class Average Marks:

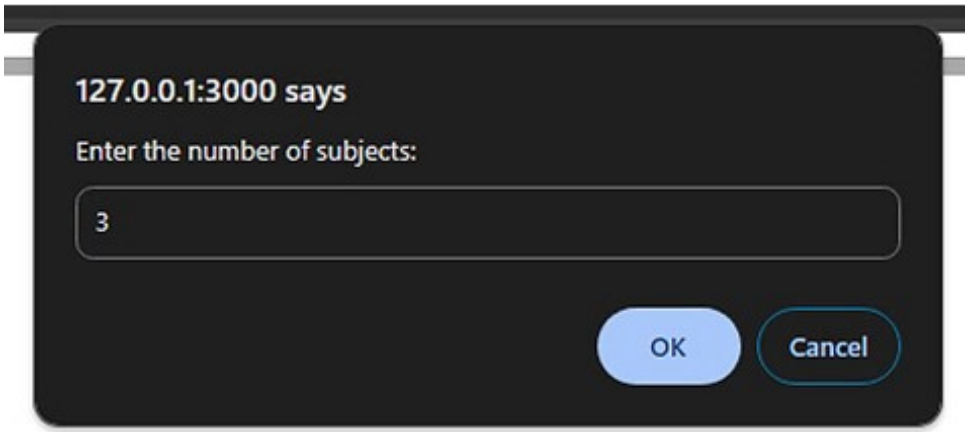
83.67

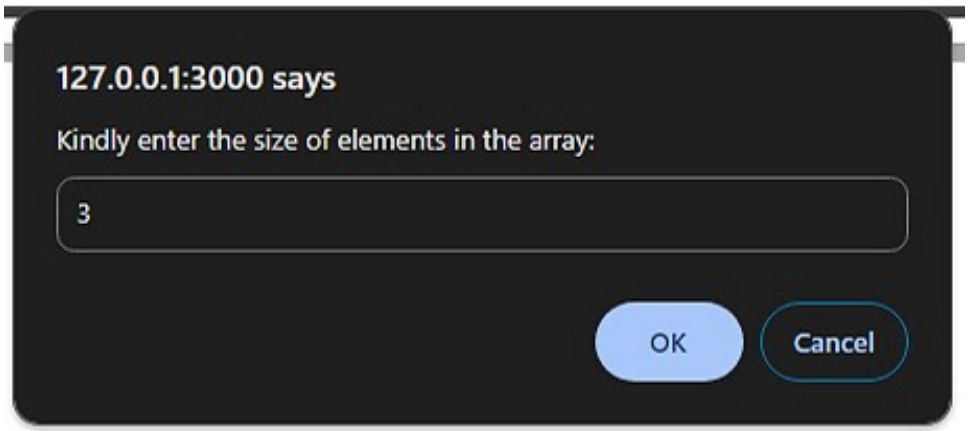
Class Average Grade:

B


127.0.0.1:3000 says
Enter the grade of Student 1 for Subject 1:
96
OK
Cancel


127.0.0.1:3000 says
Enter element 1:
9
OK
Cancel


127.0.0.1:3000 says
Enter the number of subjects:
3
OK
Cancel


127.0.0.1:3000 says
Kindly enter the size of elements in the array:
3
OK
Cancel