JavaScript Assignment 1

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COMP 1073: Client-Side JavaScript

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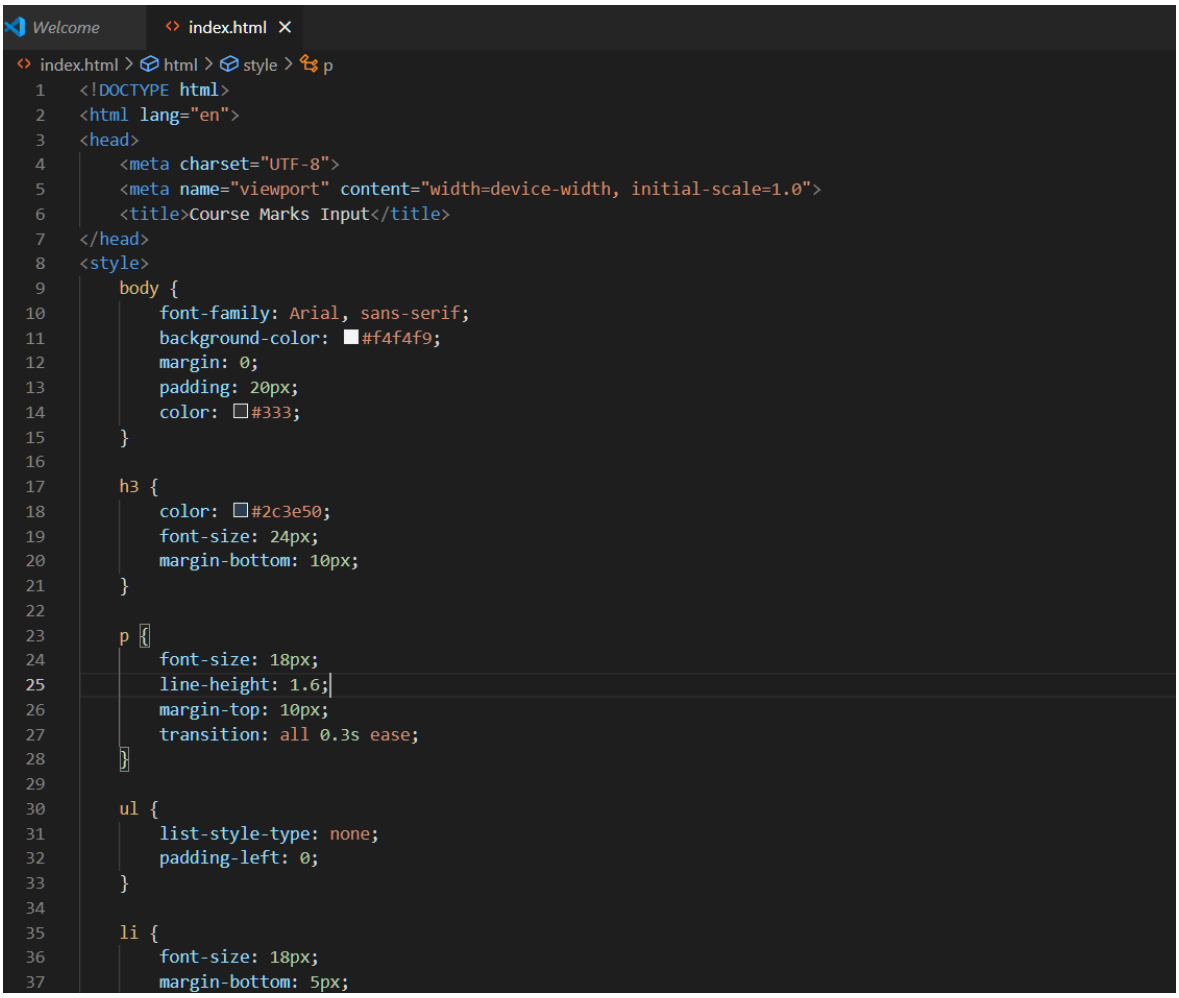
Screenshots of code



Welcome | index.html

index.html > html > style > p

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Course Marks Input</title>
</head>
<style>
    body {
        font-family: Arial, sans-serif;
        background-color: #f4f4f9;
        margin: 0;
        padding: 20px;
        color: #333;
    }

    h3 {
        color: #2c3e50;
        font-size: 24px;
        margin-bottom: 10px;
    }

    p {
        font-size: 18px;
        line-height: 1.6;
        margin-top: 10px;
        transition: all 0.3s ease;
    }

    ul {
        list-style-type: none;
        padding-left: 0;
    }

    li {
        font-size: 18px;
        margin-bottom: 5px;
```

Welcome index.html

index.html > html > style > p

```
<html lang="en">
<style>
    li {
        transition: transform 0.3s ease;
    }

    h3, p {
        border: 2px solid #2c3e50;
        padding: 10px;
        border-radius: 5px;
        background-color: #ecf0f1;
        width: 80%;
        max-width: 600px;
        margin: 20px auto;
    }

    p {
        background-color: #f9fafb;
        color: #16a085;
    }

    p.grade {
        background-color: #eafaf1;
        color: #27ae60;
        font-weight: bold;
    }

    h3:hover, p:hover {
        background-color: #dfe6e9;
        color: #2c3e50;
        cursor: pointer;
        transform: scale(1.05);
    }
```

Welcome index.html

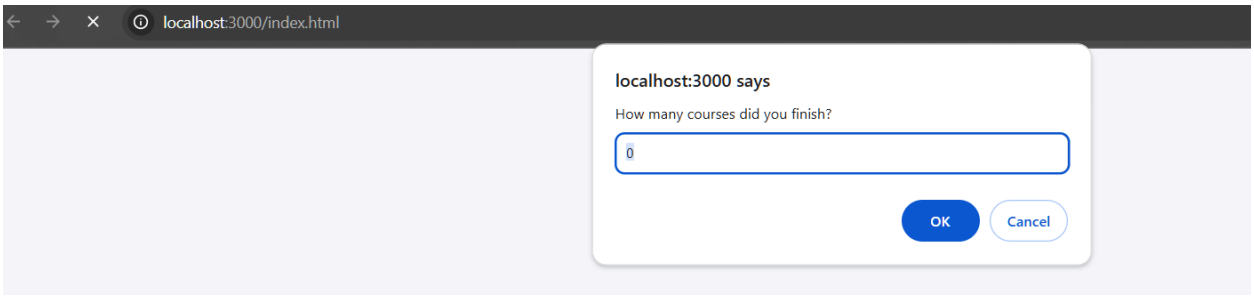
index.html > html > style > p

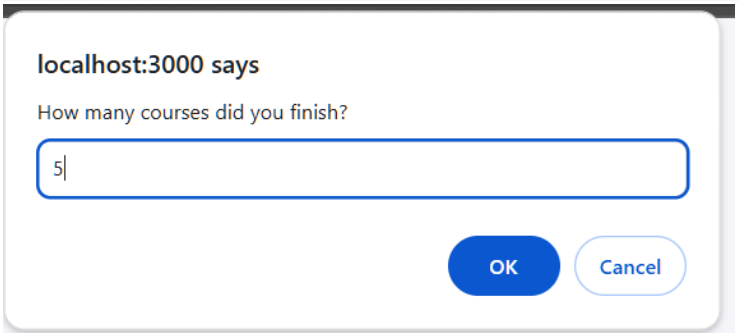
```
<html lang="en">
<style>

    li:hover {
        transform: scale(1.05);
        cursor: pointer;
    }
</style>
<body>
    <script>
        // Prompt the user for the number of courses
        let numOfCourses = prompt("How many courses did you finish?", "0");

        /*
        JS Built-in functions:
        - alert() => pop-up message
        - prompt() => pop-up message with input field
        - confirm() => pop-up message with yes/no buttons
        */

        // Convert input to integer
        numOfCourses = parseInt(numOfCourses);

        // Validate the input
        if (isNaN(numOfCourses) || numOfCourses <= 0) {
            // Printing invalid input message and ending the program
            document.write("<p>Invalid Input!</p>");
            document.write("<p>The end!</p>");
        } else {
            // For Valid input
            // Declare an empty array for course marks and a variable to hold the total
            let courseMarks = []; // declare an empty array
            let total = 0;

            //Initializing the loop counter
            let i = 1;
```

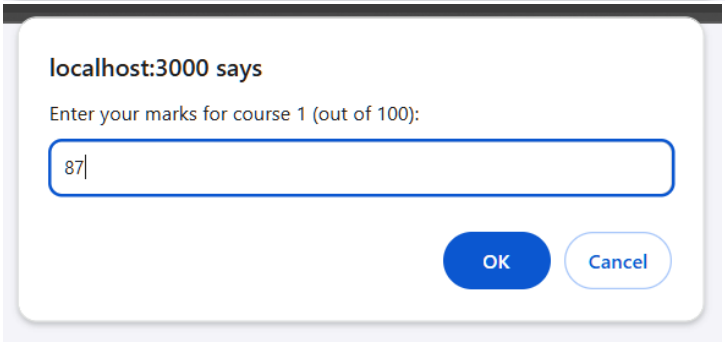
```
index.html > html > style > p
  2   <html lang="en">
 74   <body>
 75       <script>
102
103           // Loop to populate the array with marks and calculate the total
104           while (i <= numOfCourses) {
105               // Nested functions: prompt() -> convert to number -> push to array
106               let mark = parseFloat(prompt("Enter your marks for course " + i + " (out of 100):"));
107               courseMarks.push(mark); // Add the mark to the array
108               total += mark;  // Add the mark to the total
109
110               // Increment the counter
111               i++;
112           }
113
114           // Calculation for the average
115           let average = total / numOfCourses;
116
117           // Round the average to 2 decimal places
118           average = average.toFixed(2); // The `toFixed(2)` method rounds the number to 2 decimal places and returns it as a string.
119
120           // Displays the average and grade based on conditions
121           document.write("<h3>Your final average is: " + average + "</h3>");
122
123           if (average >= 90 && average <= 100) {
124               document.write("<p>Your grade is A+</p>");
125           } else if (average >= 80 && average < 90) {
126               document.write("<p>Your grade is B</p>");
127           } else if (average >= 70 && average < 80) {
128               document.write("<p>Your grade is C</p>");
129           } else if (average >= 60 && average < 70) {
130               document.write("<p>Your grade is D</p>");
131           } else if (average < 60) {
132               document.write("<p>Your grade is F</p>");
133           } else {
134               document.write("<p>Sorry, all the marks have to be from minimum 0 to maximum 100!</p>");
135           }
```

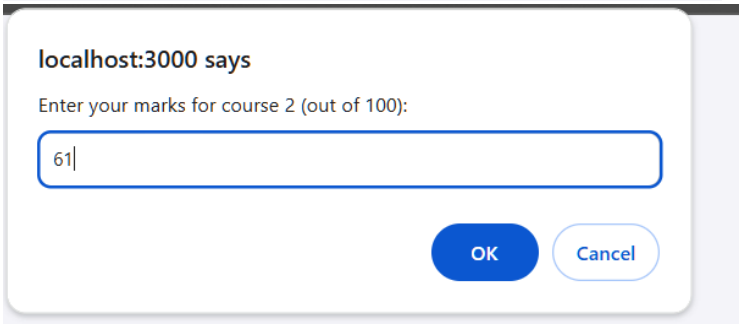
```
123           if (average >= 90 && average <= 100) {
124               document.write("<p>Your grade is A+</p>");
125           } else if (average >= 80 && average < 90) {
126               document.write("<p>Your grade is B</p>");
127           } else if (average >= 70 && average < 80) {
128               document.write("<p>Your grade is C</p>");
129           } else if (average >= 60 && average < 70) {
130               document.write("<p>Your grade is D</p>");
131           } else if (average < 60) {
132               document.write("<p>Your grade is F</p>");
133           } else {
134               document.write("<p>Sorry, all the marks have to be from minimum 0 to maximum 100!</p>");
135           }
136       }
137   </script>
138   </body>
139   </html>
```

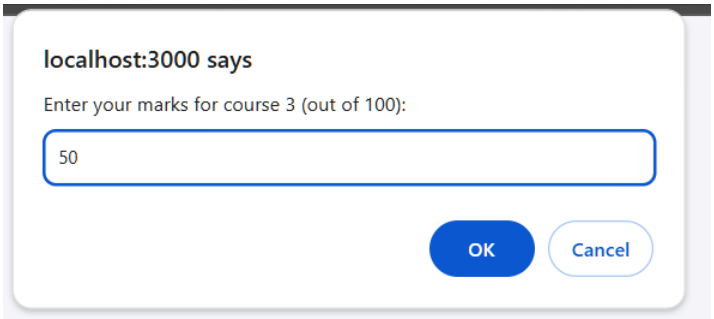
Screenshots of the browser/output

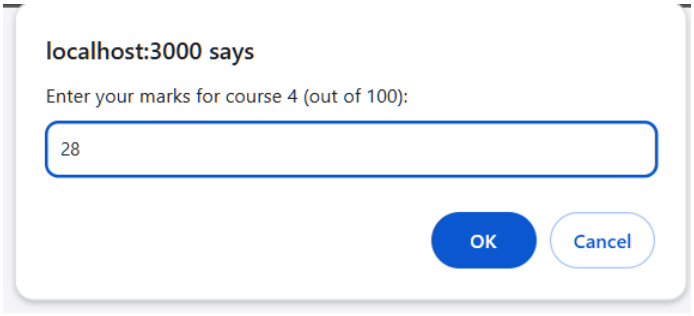


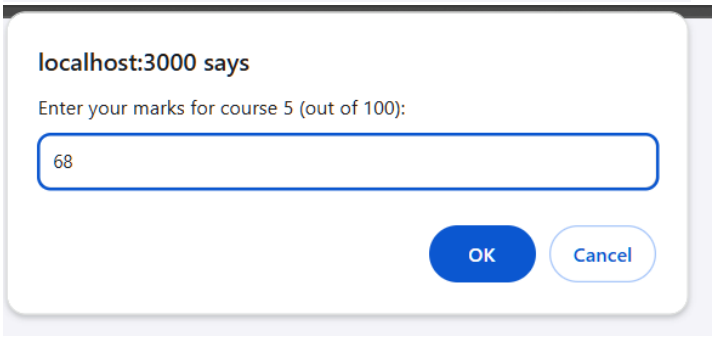


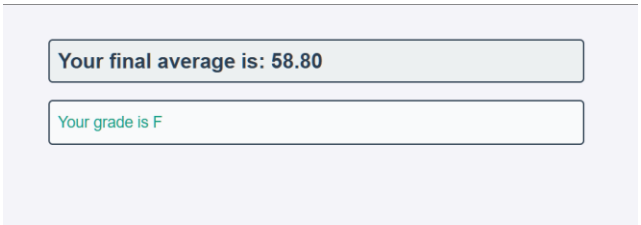




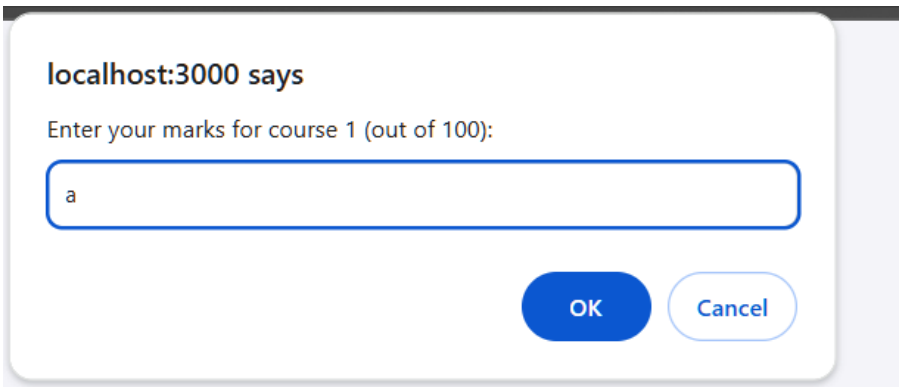


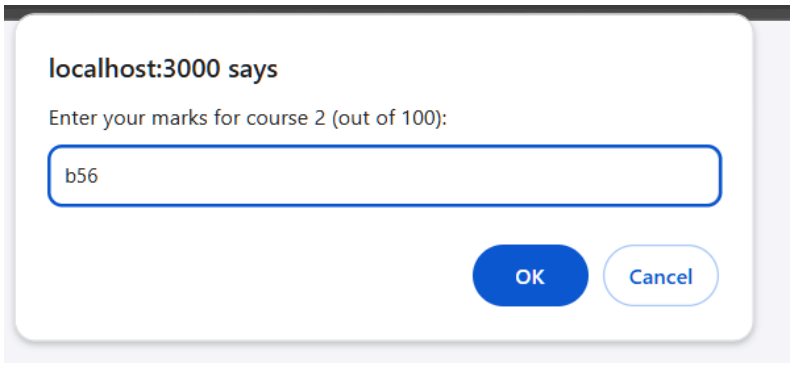






If we put value other than numeric value





Your final average is: NaN

Sorry, all the marks have to be from minimum 0 to maximum 100!