



# Uttara University

## **Assignment-02**

**Course Title : INTERNET PROGRAMMING**  
**Course Code : CSEC422**  
**Department : Computer Science and Engineering**

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# Title: Result Average Calculation Web-Page Using Bootstrap and JavaScript

## Working Procedure:

1. **Introduction:**
  - The objective of this lab is to create a web-based application that calculates the average score of three subjects. The user inputs the scores for each subject, and the application computes the average and displays the result.
2. **Design & Layout:**
  - The web page is designed using HTML for structure, CSS for styling, and JavaScript for functionality.
  - The page contains:
    - Three input fields for entering scores for each subject.
    - A result field that displays the average score.
    - A "Calculate AVG" button that triggers the calculation.
  - The UI is enhanced using **Bootstrap 5** for responsiveness and better design, including gradients and custom buttons.
3. **Input Fields:**
  - The application provides three input fields where the user enters scores for Subject 1, Subject 2, and Subject 3.
  - Each input field accepts numerical values only.
4. **Calculation Process:**
  - When the user clicks the "Calculate AVG" button:
    - The values entered in the input fields are retrieved by JavaScript.
    - These values are converted into floating-point numbers using the `parseFloat()` function.
    - The application checks if the inputs are valid (ensuring they are numbers) using `isNaN()`.
    - If valid, the average is calculated by summing the three scores and dividing by 3.
    - The result is displayed in the "Result" input field with two decimal places using `toFixed(2)`.
5. **Error Handling:**
  - If any of the input fields contain invalid or non-numeric data, the application displays an error message prompting the user to enter valid numbers.

## Source Code:

```
< Assignment 2.html X
C: > Users > ASUS > Desktop > Spring 25 > Internet Programming > Lab > < Assignment 2.html > html
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Result Average Calculation</title>
7      <!-- Bootstrap CDN -->
8      <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">
9      <style>
10         /* Background Gradient for Body */
11         body {
12             background: linear-gradient(135deg, #0072ff, #00c6ff);
13             height: 100vh;
14             display: flex;
15             justify-content: center;
16             align-items: center;
17         }
18         /* Card (Container) with Different Gradient */
19         .card {
20             background: linear-gradient(135deg, #87CEFA, #FFFFFF);
21             color: black;
22             border-radius: 15px;
23             box-shadow: 0 8px 16px rgba(0, 0, 0, 0.3);
24             padding: 20px;
25         }
26         /* Custom Button */
27         .btn-custom {
28             background-color: #0072ff;
29             color: white;
30             font-weight: bold;
31             border: none;
32             transition: 0.3s;
33         }
34         .btn-custom:hover {
35             background-color: #00c6ff;
36         }
37     </style>
38 </head>
39 <body>
40     <div class="container">
41         <div class="row justify-content-center">
42             <div class="col-md-6">
43                 <div class="card">
44                     <h3 class="text-center mb-4">Result Average Calculation</h3>
45                     <div class="mb-3">
46                         <label class="form-label">Subject 1</label>
47                         <input type="number" class="form-control" id="subject1">
48                     </div>
49                     <div class="mb-3">
50                         <label class="form-label">Subject 2</label>
51                         <input type="number" class="form-control" id="subject2">
52                     </div>
53                     <div class="mb-3">
54                         <label class="form-label">Subject 3</label>
55                         <input type="number" class="form-control" id="subject3">
56                     </div>
57                 </div>
58             </div>
59         </div>
60     </div>
61 </body>
62 </html>
```

```
37     /* Input Fields */
38     .form-control {
39         border-radius: 10px;
40         border: 1px solid #0072ff;
41         background: white;
42         color: black;
43     }
44     .form-control:focus {
45         border: 2px solid #00c6ff;
46         box-shadow: none;
47     }
48 </style>
49 </head>
50 <body>
51
52     <div class="container">
53         <div class="row justify-content-center">
54             <div class="col-md-6">
55                 <div class="card">
56                     <h3 class="text-center mb-4">Result Average Calculation</h3>
57                     <div class="mb-3">
58                         <label class="form-label">Subject 1</label>
59                         <input type="number" class="form-control" id="subject1">
60                     </div>
61                     <div class="mb-3">
62                         <label class="form-label">Subject 2</label>
63                         <input type="number" class="form-control" id="subject2">
64                     </div>
65                     <div class="mb-3">
66                         <label class="form-label">Subject 3</label>
67                         <input type="number" class="form-control" id="subject3">
68                     </div>
69                 </div>
70             </div>
71         </div>
72     </div>
73 </body>
74 </html>
```

```

69         <div class="mb-3">
70             <label class="form-label">Result</label>
71             <input type="text" class="form-control" id="result" readonly>
72         </div>
73         <button class="btn btn-custom w-100" onclick="calculateAverage()">Calculate AVG</button>
74     </div>
75 </div>
76 </div>
77 </div>
78
79 <!-- JavaScript Logic -->
80 <script>
81     function calculateAverage() {
82         // Get values from input fields
83         let sub1 = document.getElementById("subject1").value;
84         let sub2 = document.getElementById("subject2").value;
85         let sub3 = document.getElementById("subject3").value;
86
87         // Convert values to numbers
88         let num1 = parseFloat(sub1);
89         let num2 = parseFloat(sub2);
90         let num3 = parseFloat(sub3);
91
92         // Validate inputs
93         if (isNaN(num1) || isNaN(num2) || isNaN(num3)) {
94             alert("Please enter valid numbers in all fields.");
95             return;
96         }
97
98         // Calculate average
99         let avg = (num1 + num2 + num3) / 3;
100
101         // Display result
102         document.getElementById("result").value = avg.toFixed(2);
103     }
104 </script>
105
106 <!-- Bootstrap JS -->
107 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"></script>
108 </body>
109 </html>
110

```

## Output:

