

```

1 $(document).ready(function () {
2     var resultTextArea = $("#result");
3     var form2Button = $("#form2");
4     var clearButton = $("#clear");
5     var isFaded = false;
6
7     form2Button.click(function () {
8         if (!isFaded) {
9             resultTextArea.fadeOut(1000, function () {
10                 // display "New set of result was executed"
11                 resultTextArea.val("New set of result was executed");
12                 resultTextArea.css("color", "");
13                 resultTextArea.fadeIn(1000, function () {
14                     // after fading in, trigger formValid function
15                     formValid();
16                 });
17             });
18         } else {
19             resultTextArea.fadeOut("slow", function () {
20                 // clear the textarea and remove the fade
21                 resultTextArea.css("opacity", 1);
22                 resultTextArea.val("");
23                 isFaded = false;
24             });
25         }
26     });
27
28     clearButton.click(function () {
29         resultTextArea.fadeIn(100, function () {
30             setTimeout(function () {
31                 // display "You have successfully cleared the form"
32                 resultTextArea.val("You have successfully cleared the form");
33                 resultTextArea.css("color", "");
34                 // after a short delay, fade out the message and clear textarea content
35                 resultTextArea.fadeOut(1500, function () {
36                     // after fading out, clear the textarea content and show textarea
37                     resultTextArea.val("");
38                     resultTextArea.fadeIn(200);
39                     isFaded = false;
40                 });
41             }, 200); // adjust the delay duration
42         });
43     });
44
45     // Student Grade validation
46     function formValid() {
47         // Get input values
48         var number1 = document.getElementById("hwAvg").value;
49         var number2 = document.getElementById("midExam").value;
50         var number3 = document.getElementById("finalExam").value;
51         var number4 = document.getElementById("participation").value;
52
53         var num1 = parseInt(number1);
54         var num2 = parseInt(number2);
55         var num3 = parseInt(number3);
56         var num4 = parseInt(number4);
57
58         var inputFields = document.querySelectorAll(".numField");
59
60         // Flag to track if all conditions are met
61         var isValid = true;
62
63         inputFields.forEach(function(inputField) {
64             var inputValue = parseFloat(inputField.value);
65
66             if (isNaN(inputValue)) {
67                 resultTextArea.val("Please make sure to enter valid numbers in all input fields!");
68                 resultTextArea.css("color", "red");

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69         resultTextArea.css("font-weight", "bold");
70         isValid = false;
71     } else if (inputValue < 0 || inputValue > 100) {
72         resultTextArea.val("Please make sure to enter numbers between 0 and 100
73         only!");
74         resultTextArea.css("color", "red");
75         resultTextArea.css("font-weight", "bold");
76         isValid = false;
77     }
78 });
79
80 if (isValid) {
81     computeGrade(num1, num2, num3, num4);
82 }
83
84 // student grade computed
85 function computeGrade(num1, num2, num3, num4) {
86     var finGrade, retake;
87     var finAve = Math.round((0.5 * num1) + (0.2 * num2) + (0.2 * num3) + (0.1 * num4
88     ));
89
90     switch (true) {
91         case (finAve >= 90):
92             finGrade = "A";
93             break;
94         case (finAve >= 80):
95             finGrade = "B";
96             break;
97         case (finAve >= 70):
98             finGrade = "C";
99             break;
100        case (finAve >= 60):
101            finGrade = "D";
102            retake = true;
103            break;
104        default:
105            finGrade = "F";
106            retake = true;
107    }
108
109    if (retake) {
110        var fail = "Student must retake the course";
111    }
112
113    var form2Result = "Results from form2 function";
114    resultTextArea.val(form2Result);
115
116    var line1, line2, line3, tab;
117    tab = "    ";
118    line1 = `${tab}The final average: ${finAve}`;
119    line2 = `${tab}The final grade: ${finGrade}`;
120    line3 = `${tab}${fail || ""}`;
121
122    var resultText = "\n" + line1 + "\n" + line2 + "\n" + line3;
123    resultTextArea.val(resultText);
124    // Change font to default if red text exists from prior condition
125    resultTextArea.css("color", "");
126    resultTextArea.css("font-weight", "");
127 }
128 });

```