

Main.cs

1 using System;  
2  
3 class Program  
4 {  
5 static void Main()  
6 {  
7 int totalScores = 0;  
8 double sumScores = 0;  
9 string again;  
10  
11 do  
12 {  
13 Console.Write("Enter a numerical score (0-100): ");  
14 string input = Console.ReadLine();  
15  
16 // Try parsing the input safely  
17 bool isValidNumber = int.TryParse(input, out int score);  
18  
19 // Check if the input is a valid number and within the range 0-100  
20 if (isValidNumber && score >= 0 && score <= 100)  
21 {  
22 char grade; // all the possible outcome if the input grade:  
23  
24 if (score >= 90) { grade = 'A'; }  
25  
26 else if (score >= 80) { grade = 'B'; }  
27  
28 else if (score >= 70) { grade = 'C'; }  
29  
30 else if (score >= 60) { grade = 'D'; }  
31  
32 else { grade = 'F'; }  
33  
34 Console.WriteLine("\nYour letter grade is: " + grade + "\n");  
35 }

```
34     ....     Console.WriteLine("\nYour letter grade is: " + grade + "\n");
35
36     ....     switch (grade)
37 {
38         ....     case 'A':
39             ....     Console.WriteLine("Excellent work!");
40             ....     break;
41         ....     case 'B':
42             ....     Console.WriteLine("Good job!");
43             ....     break;
44         ....     case 'C':
45             ....     Console.WriteLine("You passed.");
46             ....     break;
47         ....     case 'D':
48             ....     Console.WriteLine("You need to improve.");
49             ....     break;
50         ....     case 'F':
51             ....     Console.WriteLine("You failed. Please try again.");
52             ....     break;
53     }
54
55     ....     // Add score to total
56     ....     totalScores = totalScores + 1;
57     ....     sumScores = sumScores + score;
58 }
59 else
60 {
61     ....     Console.WriteLine("Invalid input. Please enter a number between 0 and 100
62     ....     .\n");
63 }
64
65     ....     // Ask user if they want to enter another
66     ....     Console.Write("\nDo you want to enter another score? (yes/no): ");
67     ....     again = Console.ReadLine().ToLower();
68     ....     Console.WriteLine();
69 }
70
71     ....     } while (again == "yes"); // loop
72
73     ....     // Display summary if valid scores exist
74     ....     if (totalScores > 0)
75     {
76         ....     double average = sumScores / totalScores;
77         ....     Console.WriteLine("You entered a total of " + totalScores + " valid scores.");
78         ....     Console.WriteLine("The average score is: " + average.ToString("F1"));
79     }
80
81     ....     Console.WriteLine("\nGoodbye!");
82 }
```

```
68     } while (again == "yes"); // loop
69
70
71     // Display summary if valid scores exist
72     if (totalScores > 0)
73     {
74         double average = sumScores / totalScores;
75         Console.WriteLine("You entered a total of " + totalScores + " valid scores.");
76         Console.WriteLine("The average score is: " + average.ToString("F1"));
77     }
78
79     Console.WriteLine("\nGoodbye!");
80 }
81 }
82 }
```

### Output

Clear

```
Enter a numerical score (0-100): 100
Your letter grade is: A
Excellent work!
Do you want to enter another score? (yes/no): yes
Enter a numerical score (0-100): 70
Your letter grade is: C
You passed.
Do you want to enter another score? (yes/no): yes
Enter a numerical score (0-100): 30
Your letter grade is: F
You failed. Please try again.
Do you want to enter another score? (yes/no): yes
Enter a numerical score (0-100): 107
Invalid input. Please enter a number between 0 and 100.

Do you want to enter another score? (yes/no):
==== Session Ended. Please Run the code again ====
```