

```
1 using System;
2
3 namespace LinearEquationSolver
4 {
5     internal class Program
6     {
7         static void Main(string[] args)
8         {
9
10             Console.ForegroundColor = ConsoleColor.Blue;
11             Console.WriteLine
12                 ("=====");
13             Console.WriteLine("Hi, This program was written by Mohamad
14                 Saleh Hajkarami");
15             Console.WriteLine("This program solves the linear equation: ax
16                 + b = 0");
17             Console.WriteLine
18                 ("=====");
19             Console.ResetColor();
20
21             while (true)
22             {
23                 try
24                 {
25                     Console.WriteLine("Please enter the value of a :");
26                     string inputA = Console.ReadLine();
27                     double a = double.Parse(inputA);
28
29                     Console.WriteLine("Please enter the value of b :");
30                     string inputB = Console.ReadLine();
31                     double b = double.Parse(inputB);
32
33                     if (a == 0)
34                     {
35                         throw new Exception("The coefficient 'a' cannot be
36                             zero in a valid linear equation.");
37                     }
38
39                     double x = -b / a;
40
41                     Console.ForegroundColor = ConsoleColor.Green;
42                     Console.WriteLine($"The solution to the equation {a}x +
43                         {b} = 0 is: x = {x}");
44                     Console.ResetColor();
45                     break;
46                 }
47                 catch (FormatException)
```

```
44         {
45             Console.ForegroundColor = ConsoleColor.Red;
46             Console.WriteLine("Invalid input! Please enter valid    ↗
numerical values.");
47             Console.ResetColor();
48             Console.WriteLine("Let's try again...");
49         }
50         catch (Exception ex)
51         {
52             Console.ForegroundColor = ConsoleColor.Red;
53             Console.WriteLine($"Error: {ex.Message}");
54             Console.ResetColor();
55         }
56     }
57
58
59     Console.ForegroundColor = ConsoleColor.Green;
60     Console.WriteLine                                           ↗
        ("=====");
61     Console.WriteLine("Thank you for using this program!");
62     Console.WriteLine                                           ↗
        ("=====");
63     Console.ResetColor();
64 }
65 }
66 }
67
```