

Task 1:

The screenshot shows the Visual Studio IDE with the 'inlab 1 simple calculator' project open. The main editor displays the source code for 'Program.cs'. The code defines a 'simpleCalculator' class with a 'Main' method that takes string arguments. It uses 'Convert.ToInt32' to parse input and 'Console.WriteLine' to output results. A switch statement handles four cases: 1 (addition), 2 (subtraction), 3 (multiplication), and 4 (division). Case 4 also includes a check for division by zero. The Solution Explorer on the right shows the project structure with 'Program.cs' as the only file.

```

1 using System;
2 namespace simplecalculator;
3 class simpleCalculator
4 {
5     public static void Main(string[] args)
6     {
7         int a = Convert.ToInt32(Console.ReadLine());
8         int b = Convert.ToInt32(Console.ReadLine());
9         Console.WriteLine("1.add\n2.subtraction\n3.Multiplication\n4.division\n5.squareRoot");
10        Console.WriteLine("Enter Choice: ");
11        int choice = Convert.ToInt32(Console.ReadLine());
12
13        switch (choice)
14        {
15            case 1:
16                Console.WriteLine($"sum of two numbers is { a + b}");
17                break;
18            case 2:
19                Console.WriteLine($"Difference of two numbers is { Math.Abs(a - b)}");
20                break;
21            case 3:
22                Console.WriteLine($"Multiplication of two numbers is { a * b}");
23                break;
24            case 4:
25                int res;
26                if (a>b)
27                {
28                    res = a / b;
29                }
30                else
31                {
32                    Console.WriteLine("Division by zero is not possible");
33                }
34                Console.WriteLine($"Division of two numbers is { res}");
35                break;
36        }
37    }
38 }

```

Output:

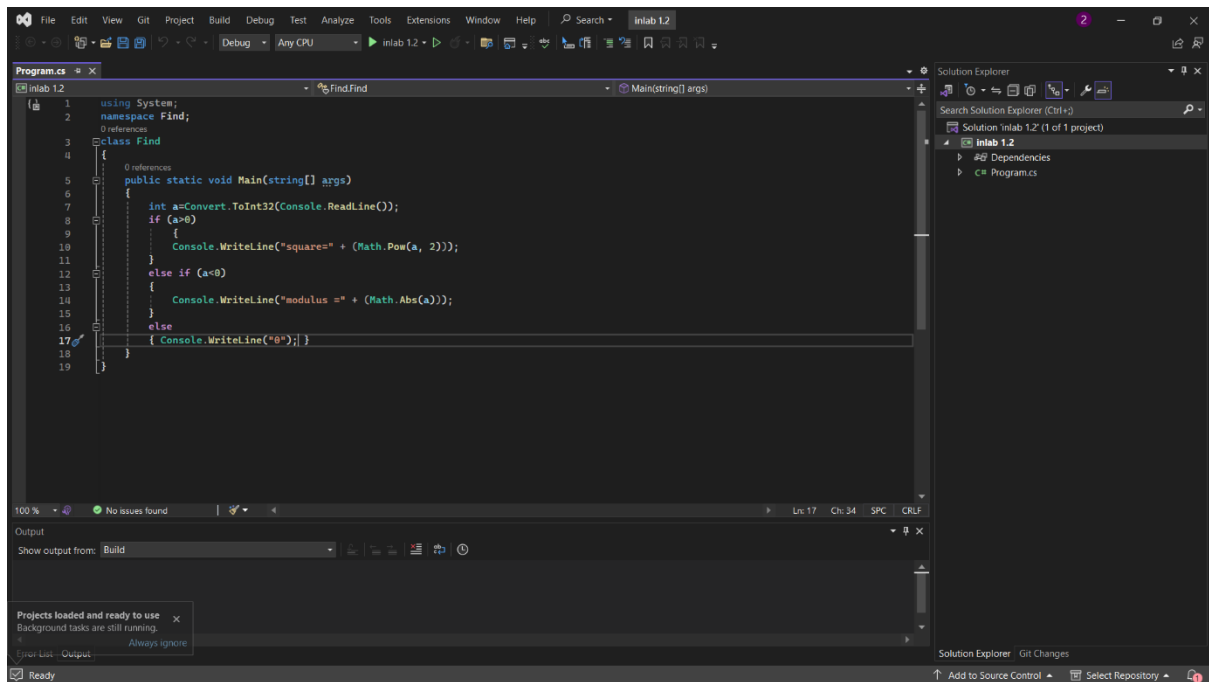
The screenshot shows the Visual Studio IDE with the 'inlab 1 simple calculator' project open. The main editor displays the output of the program. The output shows the program running and displaying the menu options. The user enters '4' for division, and the program outputs 'Division of two numbers is 1'. The console window also shows the program's exit message.

```

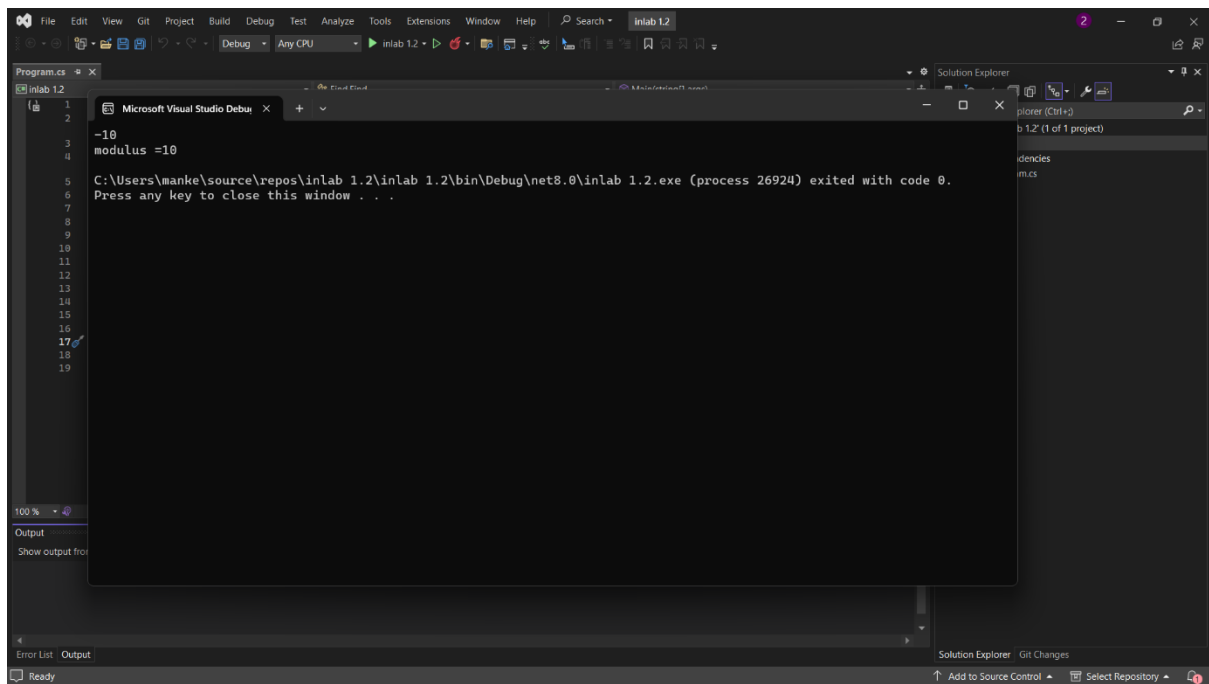
5
3
1.add
2.subtraction
3.Multiplication
4.division
5.squareRoot
Enter Choice:
4
Division of two numbers is 1
C:\Users\manke\source\repos\inlab 1 simple calculator\inlab 1 simple calculator\bin\Debug\net8.0\inlab 1 simple calculator.exe (process 16972) exited with code 0.
Press any key to close this window . . .

```

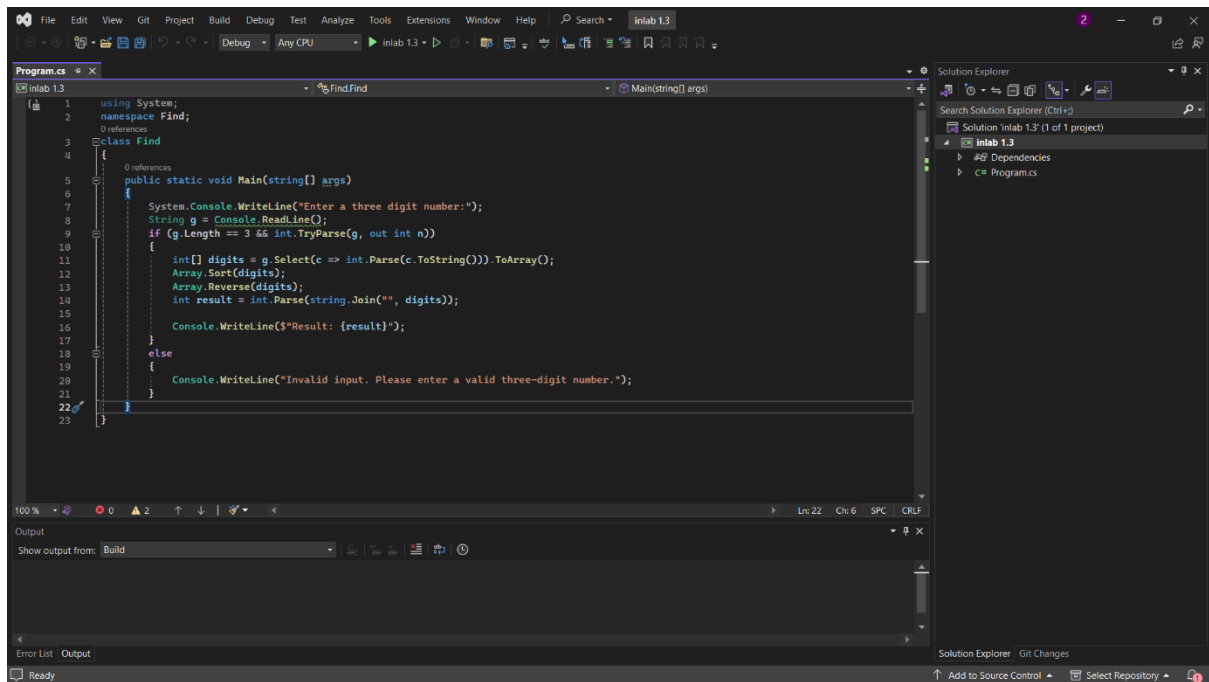
Task 2:



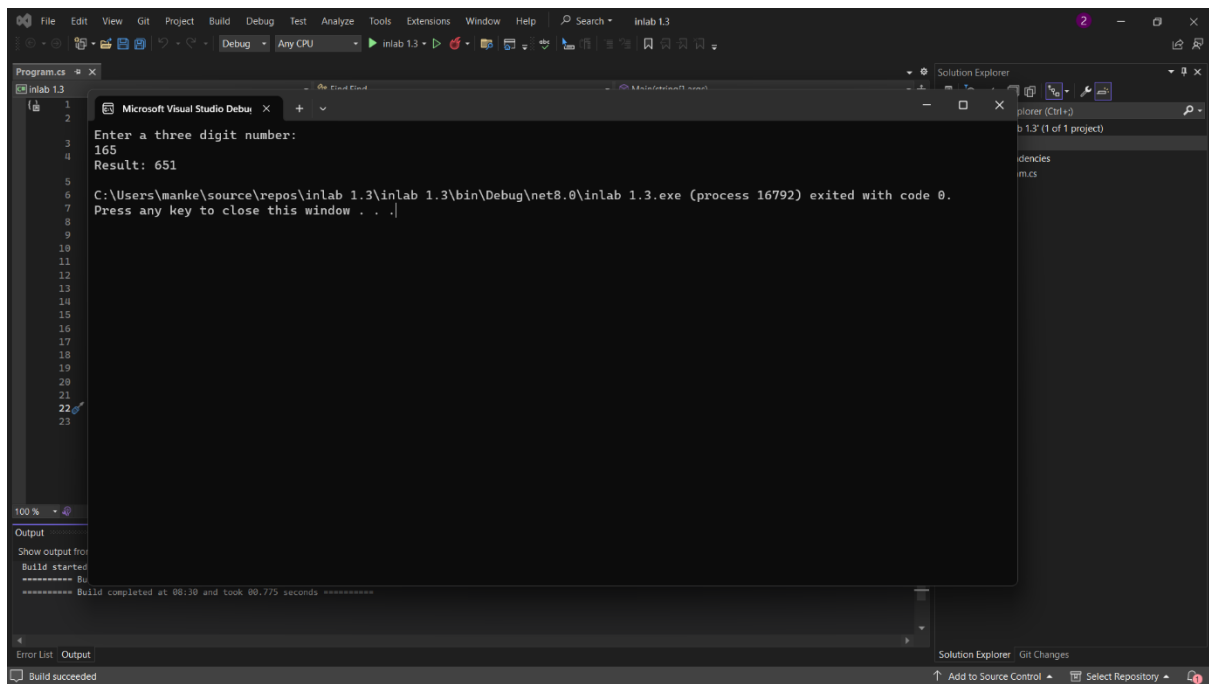
Output:



Task 3:



Output:



Post lab:

```
class Sc
{
    1 reference
    public static int Add(int x,int y)
    {
        return x + y;
    }
    1 reference
    public static int Subtract(int x, int y)
    {
        return Math.Abs(x - y);
    }
    1 reference
    public static int Mul(int x, int y)
    {
        return x * y;
    }
    1 reference
    public static int div(int x, int y)
    {
        if (x>y)
            return x/ y;
        return y / x;
    }
    1 reference
    public static int sqr(int x)
    {
        return (int)Math.Sqrt(x);
    }
    0 references
    public static void Main(string[] args)
```

```
System.Console.WriteLine("Enter your choice:");
string cho= Console.ReadLine();
int ch=Convert.ToInt32(cho);
Sc s=new Sc();
int result = 0;
switch (ch)
{
    case 1:
        result = Add(c, d);
        Console.WriteLine($"Result of addition: {result}");
        break;

    case 2:
        result = Subtract(c, d);
        Console.WriteLine($"Result of subtraction: {result}");
        break;
    case 3:
        result = Mul(c, d);
        Console.WriteLine($"Result of product: {result}");
        break;
    case 4:
        result = div(c, d);
        Console.WriteLine($"Result of divison: {result}");
        break;
    case 5:
        result = sqr(c);
        Console.WriteLine($"Result of divison: {result}");
        break;
    default:
        Console.WriteLine("Invalid choice");
        break;
}
```