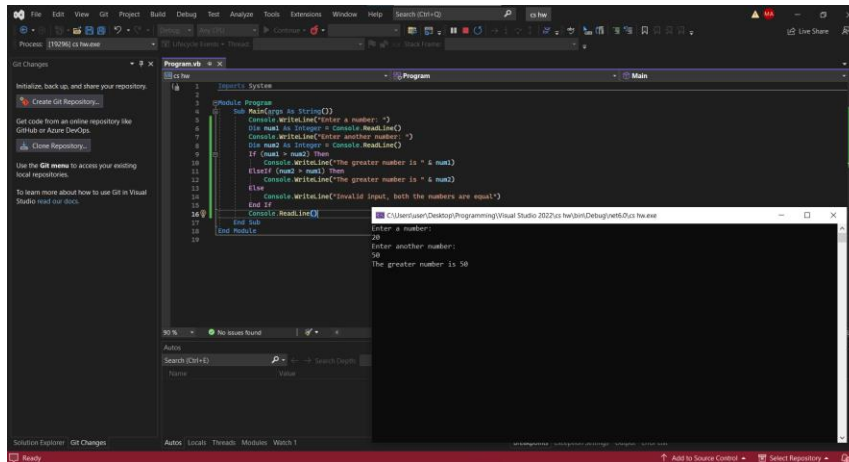


## Topic : Decision Making

1. Write a program to requests two numbers as input and displays the higher of the two numbers.

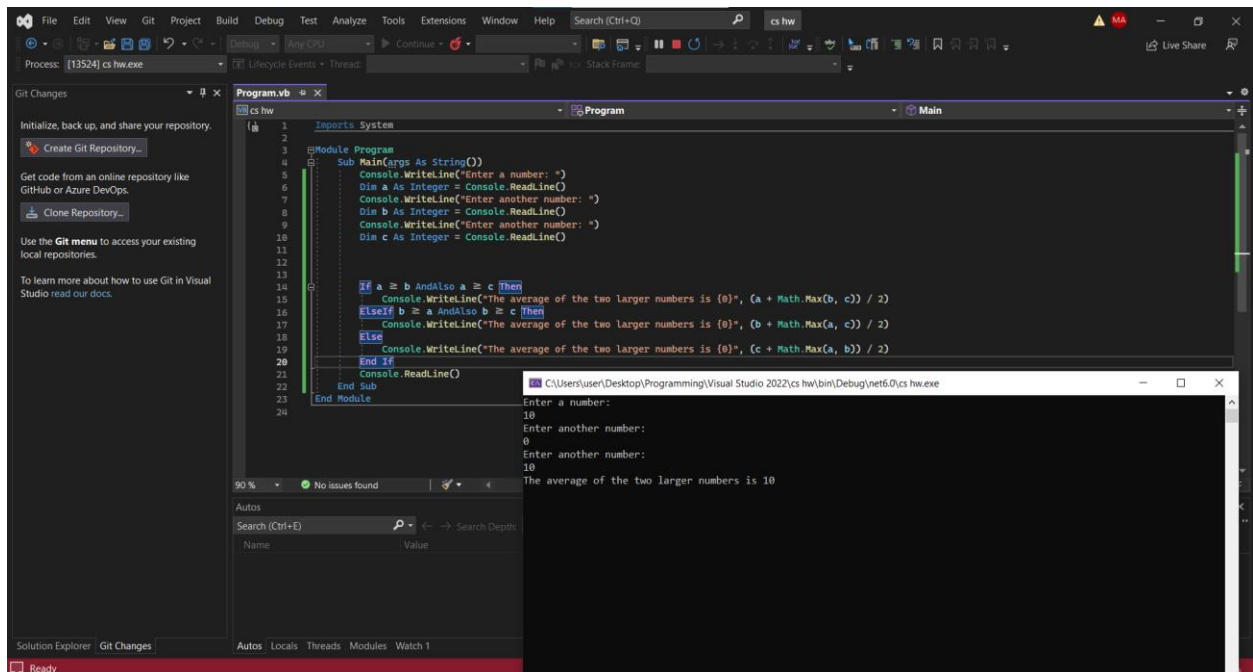


The screenshot shows a Visual Studio IDE with a C# console application. The code in Program.cs is as follows:

```
1 using System;
2
3 namespace Program
4 {
5     class Program
6     {
7         static void Main()
8         {
9             Console.WriteLine("Enter a number:");
10            int num1 = Convert.ToInt32(Console.ReadLine());
11            Console.WriteLine("Enter another number:");
12            int num2 = Convert.ToInt32(Console.ReadLine());
13            if (num1 > num2)
14            {
15                Console.WriteLine("The greater number is " + num1);
16            }
17            else if (num2 > num1)
18            {
19                Console.WriteLine("The greater number is " + num2);
20            }
21            else
22            {
23                Console.WriteLine("Invalid input, both the numbers are equal");
24            }
25        }
26    }
27 }
```

The console output shows the program running and the user inputting 20 and 50, resulting in the output: "The greater number is 50".

2. Write a program to input three number and output the average of the two larger values.

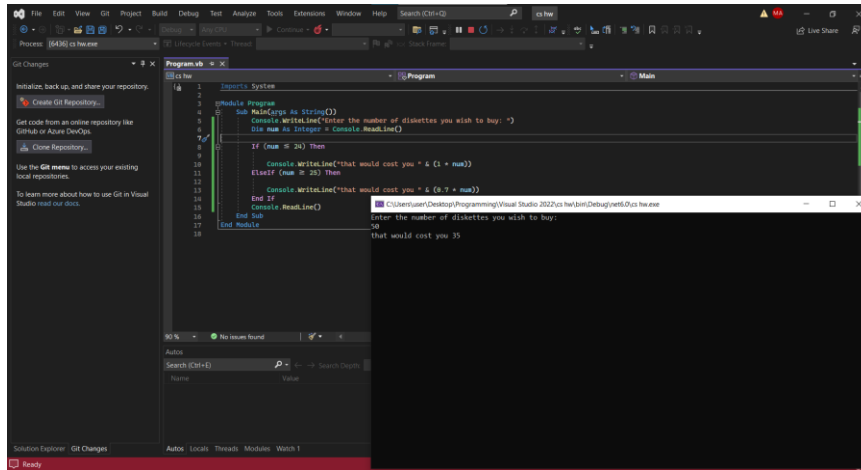


The screenshot shows a Visual Studio IDE with a C# console application. The code in Program.cs is as follows:

```
1 using System;
2
3 namespace Program
4 {
5     class Program
6     {
7         static void Main()
8         {
9             Console.WriteLine("Enter a number:");
10            int a = Convert.ToInt32(Console.ReadLine());
11            Console.WriteLine("Enter another number:");
12            int b = Convert.ToInt32(Console.ReadLine());
13            Console.WriteLine("Enter another number:");
14            int c = Convert.ToInt32(Console.ReadLine());
15
16            if (a >= b && a >= c)
17            {
18                Console.WriteLine("The average of the two larger numbers is {0}", (a + Math.Max(b, c)) / 2);
19            }
20            else if (b >= a && b >= c)
21            {
22                Console.WriteLine("The average of the two larger numbers is {0}", (b + Math.Max(a, c)) / 2);
23            }
24            else
25            {
26                Console.WriteLine("The average of the two larger numbers is {0}", (c + Math.Max(a, b)) / 2);
27            }
28        }
29    }
30 }
```

The console output shows the program running and the user inputting 10, 0, and 10, resulting in the output: "The average of the two larger numbers is 10".

3. A computer store sells diskettes at \$1 each for small orders or at 70 cents a piece for orders of 25 diskettes or more. Write a program that requests the number of diskettes ordered and displays the total cost.

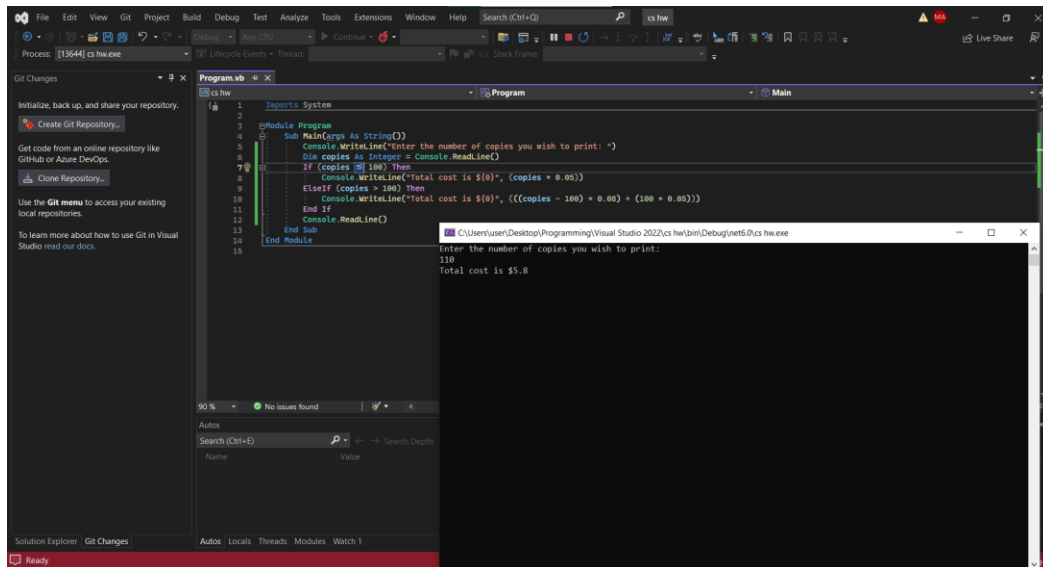


The screenshot shows a Visual Studio IDE with a VB.NET program. The code is as follows:

```
1 Imports System
2
3 Module Program
4     Sub Main(args As String())
5         Console.WriteLine("Enter the number of diskettes you wish to buy: ")
6         Dim num As Integer = Console.ReadLine()
7
8         If (num <= 24) Then
9             Console.WriteLine("That would cost you " & (1 * num))
10        ElseIf (num >= 25) Then
11            Console.WriteLine("That would cost you " & (0.7 * num))
12        End If
13        Console.WriteLine()
14        End Sub
15    End Module
```

The console window shows the program execution: "Enter the number of diskettes you wish to buy:" followed by the input "35" and the output "That would cost you 35".

4. A copying center charges 5 cents per copy for the first 100 copies and 3 cents per copy for each additional copy. Write a program that requests the number of copies as input and displays the total cost.

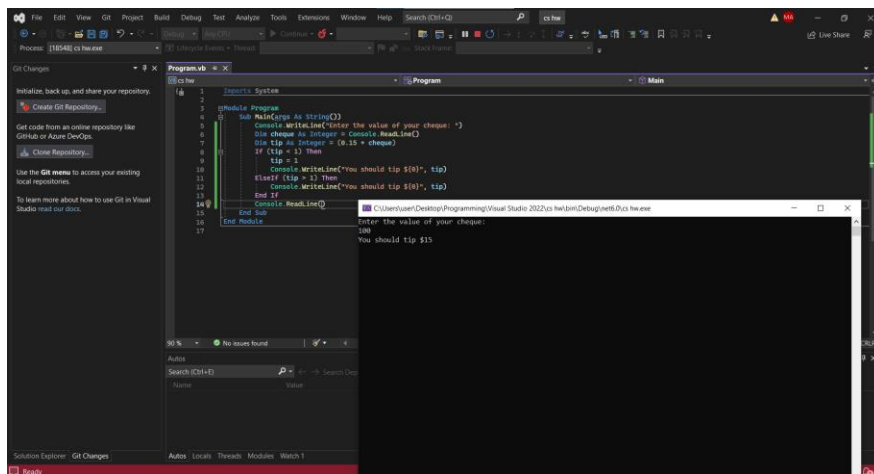


The screenshot shows a Visual Studio IDE with a C# program. The code is as follows:

```
1 Imports System
2
3 Module Program
4     Sub Main(args As String())
5         Console.WriteLine("Enter the number of copies you wish to print: ")
6         Dim copies As Integer = Console.ReadLine()
7
8         If (copies <= 100) Then
9             Console.WriteLine("Total cost is $(0)", (copies * 0.05))
10        ElseIf (copies > 100) Then
11            Console.WriteLine("Total cost is $(0)", (((copies - 100) * 0.03) + (100 * 0.05)))
12        End If
13        Console.WriteLine()
14        End Sub
15    End Module
```

The console window shows the program execution: "Enter the number of copies you wish to print:" followed by the input "110" and the output "Total cost is \$5.8".

5. Write a program to determine how much to tip the waiter in a fine restaurant. The tip should be 15 percent of the check, with a minimum of \$1.



6. Write a program which accepts a temperature value and then offers the user a choice between converting from C to F or from F to C.

Formula

$$^{\circ}\text{C} \times \frac{9}{5} + 32 = ^{\circ}\text{F}$$

$$(^{\circ}\text{F} - 32) \times \frac{5}{9} = ^{\circ}\text{C}$$

