

Day 01 - TASK 2

C# Numeric Formats

Discuss

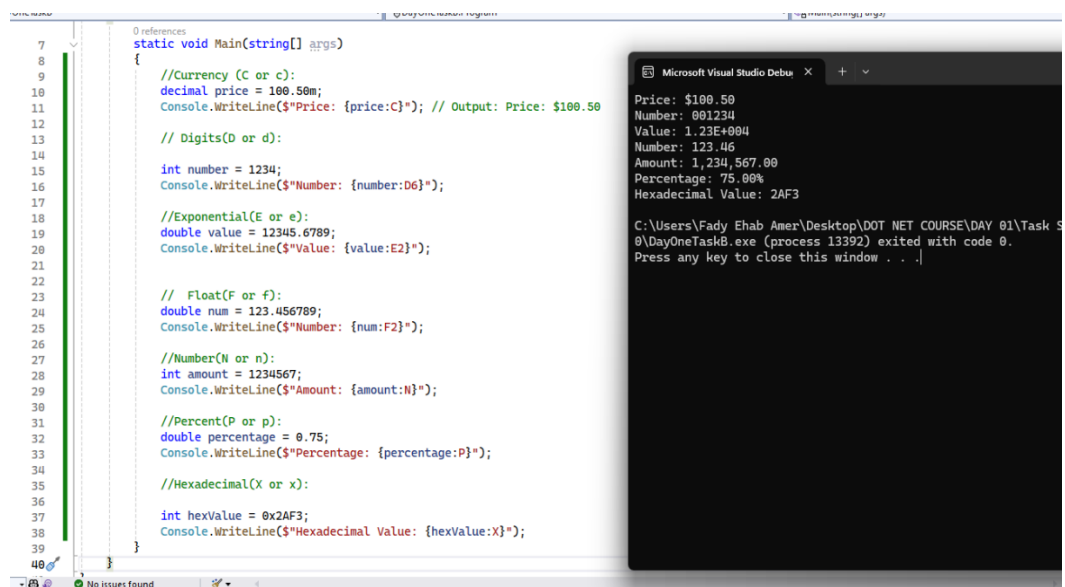
X is 10 and Y is 20 so $x+y = 30$, but in the format `{X+Y:c}` the output will be formatted as **\$30.00**

Because of **C# Numeric Formats** which helps in:

- Readability**: Using numerical formats simplifies the output by arranging the numbers in a way that is more understandable to people. To improve readability, you might use currency symbols or thousands separators.
- Numerical formats guarantee **uniformity** in the way that numbers are presented across an application. Maintaining a consistent look for numerical values through the usage of format specifiers enhances the user experience overall.
- Localization**: Numerical forms are adaptable to many geographical locations and cultural norms. Including digit grouping symbols, decimal separators, and currency symbols, C# comes with built-in support for formatting numbers based on the active cultural settings. Applications can now be more easily adapted for use by users worldwide.
- Control of Precision**: You can define the number of decimal places for floating-point numbers or the number of digits for integers in numerical formats, which provide you control over the precision of numerical values. By doing this, the appropriate degree of precision in the display of numbers is guaranteed.

Usability: Format specifiers make the code easier to read and need less human formatting. By using built-in format specifiers, you can quickly and easily produce the necessary output without having to write bespoke formatting logic.

MORE EXAMPLES



```
static void Main(string[] args)
{
    //Currency (C or c):
    decimal price = 100.50m;
    Console.WriteLine($"Price: {price:C}"); // Output: Price: $100.50

    // Digits(D or d):
    int number = 1234;
    Console.WriteLine($"Number: {number:D6}");

    //Exponential(E or e):
    double value = 12345.6789;
    Console.WriteLine($"Value: {value:E2}");

    // Float(F or f):
    double num = 123.456789;
    Console.WriteLine($"Number: {num:F2}");

    //Number(N or n):
    int amount = 1234567;
    Console.WriteLine($"Amount: {amount:N}");

    //Percent(P or p):
    double percentage = 0.75;
    Console.WriteLine($"Percentage: {percentage:P}");

    //Hexadecimal(X or x):
    int hexValue = 0x2AF3;
    Console.WriteLine($"Hexadecimal Value: {hexValue:X}");
}
```

The screenshot shows the output of the program in the Visual Studio console:

```
Price: $100.50
Number: 001234
Value: 1.23E+004
Number: 123.46
Amount: 1,234,567.00
Percentage: 75.00%
Hexadecimal Value: 2AF3
```

At the bottom of the console window, it says: "C:\Users\Fady Ehab Amer\Desktop\DOT NET COURSE\DAY 01\Task 2\DayOneTask8.exe (process 13392) exited with code 0. Press any key to close this window . . ."