**CS 131 Exercises**

**C#—A Beginner’s Guide**

**Pat McGee**

ISBN: 978-0-07-183581-7

**CS 131 Exercises - Chapter 2 : Variables, Constants, Arrays, Enums**

**Exercise 1.** Create a C# Console application called Types.

* Declare and initialize one variable of type integer, one of type float and one of type string. Give the integer variable the value 77, the float 22.25, and the string ‘Value 100’. Give the variables names of your choosing but use names that would give someone examining your code some idea as to what these values are used for.
* Create a fourth variable by casting the float value to integer. Name the variable appropriately.
* Output the values of all four variables using Console.WriteLine, and confirm the values of the variables when you run the program.
* Use the code in Figure 2-1 Data Types and Variables as a guide.

What happens to the number when you cast a double to an integer?

This exercise is intended to practice on initializing variable of types integer float, and string. It also includes explicit casting. In the event that we cast a double to an integer, the number becomes a whole number. It is similar to casting float to an integer.

A picture containing flower, bird

Description automatically generated

Figure 1.1: Output of all four variables

A screenshot of a cell phone

Description automatically generated

Figure 1.2: Confirming value of num1 is 77

A screenshot of a cell phone

Description automatically generated

Figure 1.3: Confirming value of num2 is 22.25

A screenshot of a cell phone

Description automatically generated

Figure 1.4: Confirming value of num3 is “Value 100”

A screenshot of a cell phone

Description automatically generated

Figure 1.5: Confirming value of num2ToInt is 22

**Exercise 2.** Create a new C# Console project called StringArray.

* Using Example 2-2 as a guide, create a program that declares an array with four string elements.
* Give the elements values of your choosing.
* Sort the array, then output the number of array elements and the sorted element values.

In this exercise, we are to create an array of size [4] and to output the number of array elements and the sorted element values. I have chosen to create an array that contains different pizza types.



Figure 2.1: Output that shows the number of array elements

A screenshot of a cell phone

Description automatically generated

Figure 2.2: Output that shows the sorted element values

A picture containing bird

Description automatically generated

Figure 2.3: Output completed

A screenshot of a cell phone

Description automatically generated

Figure 2.4: Confirming that pizzaType size is 4

A screenshot of a cell phone

Description automatically generated

Figure 2.5: Confirming indexes contain sorted values