Lab 2 – C# Basics

Purpose: To make sure the coding environment is accessible—Refresh 1250 concepts in C#. Walk students through some basic programming concepts. Enforce coding expectations.

For this assignment, create a console-based application that displays a menu solving each question below. Be sure to validate input and provide an informative environment. (You decide how this should be.) Create as many classes/methods as you deem necessary. Document anything ambiguous. Be sure to provide a welcome and exit screen for this entire program. Clear the screen and give well-organized console outputs.

1. Print the output of adding two numbers from user input.
   Output should be {input1} + {input2} = {sum}

2. Take a user's input number and input its multiplication table. The user can choose how high to multiply by.
   *Output something like num * 0 = 0, num * 1 = num, ... to, num * maxNumber = quotation*

3. Output the number of bytes in memory that each of the following number types uses and the minimum and maximum values they can have: sbyte, byte, short, ushort, int, uint, long, ulong, float, double, and decimal.
   Example Output:

Type	Byte(s) of memory	Min	Max
sbyte	1	-128	127
byte	1	0	255
short	2	-32768	32767
ushort	2	0	65535
int	4	-2147483648	2147483647
uint	4	0	4294967295
long	8	-9223372036854775808	9223372036854775807
ulong	8	0	18446744073709551615
float	4	-3.4028235E+38	3.4028235E+38
double	8	-1.7976931348623157E+308	1.7976931348623157E+308
decimal	16	-79228162514264337593543950335	79228162514264337593543950335

   Use the primitive underlying classes and methods to do this. ***The sizeof operator will help.***

4. Create a 5 function (+, -, *, /, and modulus) calculator. This calculator should loop until 'esc' is typed. For example, I should be asked for num 1, then some operation (+, -, *, /, and modulus) to another num 2. Provide the results, and then provide a way to esc the program or do another operation (+, -, *, /, and modulus) to the result.

Let me know when you have all four of these functionalities in place, and I will check you off for the lab.

Disclaimer: Due dates, rubrics, and submission requirements are attached to the coordinating dropbox. In addition to submitting your code to the appropriate GitHub repository, always submit your GitHub link(s) with your dropbox submission.