CSC 3210 – Assignment #5
Spring 21
Due 4/26/21, 11:59 pm

1. **(15 points)**

   A. **(10 points)** Write a recursive procedure in assembly language that take a 16-bit unsigned integer, **n** as input, and computer the following series:
   `1 +2+3+ .. + n`
   For example, if n = 4, the procedure computes `1 + 2 + 3 + 4`
   - The procedure stores the result in EAX register.
   - Use **stack frame** to implement the procedure.
   - Run your program using the debugger to verify your answers.
     - Use Step Into instead of Step Over to keep track of the stack, ESP, EBP, EIP during debugging.

     Submit the following:
     - Rename the asm file using your last name as Lastname.asm and submit it.
     - Screenshot of the code
     - Then run the code until you reach INVOKE ExitProcess, 0
     - Then take a screenshot of the EAX register containing the result.

   B. **(5 point)** How many bytes of stack space will be used by the Factorial subroutine just before it executes the first return statement, when n=3?

   - **Submit the answers to B in the following:**
     - Lastname.pdf

Note:

- **Submit** your source code by **only** uploading **.ASM file** and your pdf file using **iCollege** in the respective assignment dropbox:
- Lastname1.ASM
- **Comment header** for .ASM files:

  Class: CSC3210

  Assignment#: 7

  Description: This program …….
- Follow the program standards as presented in your book.
- Pay more attention to code comments and consistent indentation.
- Create a new project for every question. Do not use one project with multiple .asm files.