**CSc 3210 – Assignment #4**

Due Tuesday, July 12th by 11:59pm

Write a program to find and print a Fibonacci sequence of numbers. The Fibonacci sequence is defined as follows:

Your program should prompt the user to enter a limit, print the sequence up to the limit, and then indicate the greatest power of 2 that the final number printed is divisible by. Assume user input will be between 1 and 4096.

Here is what the user will see when the program is executed:

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*This program prints the Fibonacci sequence*

*Enter a limit on the largest number to be displayed: 50 🡨 50 is Input*

***1 1 2 3 5 8 13 21 34***

*The last number 34 is divisible by 2.*

*Do you want to print a different sequence (Y/N): y 🡨 y is Input*

*Enter a limit on the largest number to be displayed: 200 🡨 200 is Input*

*1 1 2 3 5 8 13 21 34 55 89 144*

*The last number 144 is divisible by 16.*

*Do you want to print a different sequence (Y/N): n 🡨 n is Input*

*Goodbye.*

------------------------------ Requirements:

1. Follow the requirements as described above.

2. Name your source file ‘lastname4.m’.

3. Submit the following to D2L by deadline:

* Lastname4.m
* Lastname4.doc (a word file containing your code)

4. Comment your code

Notes:

1. Make sure to declare word elements before declaring bytes or strings.

2. After using the scanf function, you can then use either the ld or ldub commands to access the input values. The command ld is for the word size elements and ldub is for the byte size elements.