

## SeriesFibLoop.cpp

```
1 /*****
2 * AUTHOR      : Ali Eshghi
3 * STUDENT ID   : 1112261
4 * ASSIGNMENT #4 : Assessing Recursion Performance
5 * CLASS        : CS 1B
6 * SECTION      : MW - 7:30 pm - 9:50 pm
7 * DUE DATE     : 11/26/2019
8 *****/
9
10 #include "MyHeader.h"
11
12 /*****
13 * SeriesFibLoop
14 *   This function will calculate the fibbinacci result number of
15 *   user's number input using a loop
16 *
17 *   returns integer -> fibonacci result of the target number
18 *****/
19
20 int SeriesFibLoop(int userInp) //IN & PROCESS - user's input
21 {
22     /*****
23      * VARIABLE *
24      *****/
25
26     //INTEGERS
27
28     long long i;          //PROCESS & OUT - fibonacci series of user input num
29     long long x;          //PROCESS - number for n - 1
30     long long y;          //PROCESS - number for n - 2
31     int z;
32
33     /*****
34      * INITIALIZE *
35      *****/
36
37     i = 1;
38     x = 0;
39     y = 1;
40     z = 2;
41
42     //While loop for number of times
43     while (z <= userInp)
44     {
45         x = y;
46         y = i;
47
48         i = x + y;
49
50         z++;
51     }
52
53     //returns an integer to the main
54     return i;
55 }
```

```
56 }  
57
```