

FactLoop.cpp

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1 /*****
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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 * FactLoop
14 *   This function will calculate the factorial number of user's number
15 *   input using a loop
16 *
17 *   returns integer -> factorial result of the target number
18 *****/
19
20 int FactLoop(int userInp)    //IN & PROCESS - user's input
21 {
22
23     /*****
24     * VARIABLE *
25     *****/
26
27     long long factTot; //PROCESS & OUT - factorial of the user input number
28     int i;             //PROCESS - loop LCV
29
30     //if statement for 1 or 0 input
31     if(userInp == 0 || userInp == 1)
32     {
33         factTot = 1;
34         return factTot;
35     }
36
37     else
38     {
39         for(i = 2; i <= userInp ; i++)
40         {
41             factTot = factTot * i;
42         }
43
44         //returns an integer to the main
45         return factTot;
46     }
47 }
48 }
49
50
```