

Mystery

- Design and Implementation

The mystery program is an algorithm that can compute the Fibonacci sequence. The output is based on the number at the index that user entered. The number that user imputed is within 200.

I write the mystery.c based on professor's assembly. My mystery.c contain three functions:

- add function
 - This function compute the sum of two parameters
- dothething function
 - The parameter's parameter is n
 - This function will first check if the nth number of the array is -1
 - If it is not -1, then the Fibonacci number has been computed before, it will return the nth number of the array
 - If it is 0, then the 1st Fibonacci number is 0
 - If it is 1, then the 1st Fibonacci number is 1
 - If it is not -1, 1 and 0, then the nth Fibonacci number has not been computed, we will call dothething(n-1) and dothething(n-2), and make the sum as the value of the nth number of array, then return the sum
- main function.
 - The main function uses an array to store first 200 Fibonacci number.
 - When the main program runs, the array will be initialized to -1

- They this program will begin computing the nth Fibonacci number

The optimization mainly is about the array. I think the optimization no longer uses array because its waste of space.