

EE334 Computer Architecture

Lab 3: Fibonacci Numbers

Spring 2004

Please write a program that implements Fibonacci Numbers. A *difference equation* for Fibonacci numbers has the following form:

$$F_n = F_{n-1} + F_{n-2}, \text{ for } n \geq 2$$

With two boundary conditions:

$$F_0 = 0, F_1 = 1$$

The input for this function/program is an integer number which represents n. The output is the Fibonacci Number that corresponds to n.

Below there are some of the Fibonacci Numbers that correspond to values of n (0,1,2,3,4,5,6,...). These numbers may help you debug your program.

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ...

You can implement this function/program using a loop. Your loop could start with n=1; then, increment n until it reaches the desired number. Thus, your program starts with F1 and then move up until reaches n.

REPORT

Please include the following items in your report.

1. Explain how your program works. You may use a flow chart, pseudo C program, or other way to explain the program.
2. Show a couple of examples.
3. Conclusion section. Explain what you learned here and what was difficult about this lab.
4. A print out of your program. # ***Include comments in your program.***

SHOW AND TELL

Please give a demonstration of your program to your TA. Please make sure that she marks her list that you have done the lab.

REPORT IS DUE: Friday, February 13 (in class).

You can give the report to your TA **before** the deadline.

TAs for this course are:

Name	Office	Email address	Office hours
Ms. Li Zhao	Sloan 337	lzhao@eecs.wsu.edu	Thursday 9AM-12noon
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