

Description: This program consisted of being given an assembly file and making an equivalent c code.

Design: At first, trying to read mystery.s was a true mystery. But after coding in assembly and having a decent understanding of figuring out what the instruction do I figured out that this file is the Fibonacci sequence. I managed to decipher to what I think is a semi accurate c code that has the same output as the given assembly file. What was confusing was trying to figure out that there was an array of ints there. But after figuring that out it was simple deciphering what was to be done with the array. There were 2 functions, add and dothething and a main. Main called in 1 integer which is then given to the dothething function and the Fibonacci number is given as an output. After doing the c code I converted it to assembly to figure out how it compared to the original code. While there are some resemblances it doesn't seem to be exactly equal to the original code. When optimizing it, the x86 instructions seem to have many shortcut instructions handy to make everything faster.