Lab Exercise 1

Submit your work to moodle before the deadline.

1. Write a program in MIPS assembly language that computes the first seven values of the fibonacci sequence* and stores those values in memory. Initialize $F_0 = 0$ and $F_1 = 1$. After running your program, the data segment window should show all seven values.

   Hint: Please use an array to store those values. You can initialize your array as "*Fib: .word 0 1*" (that means Fib[0] = 1, Fib[1] = 1) in the **.data** section, and to get the address of this array, use "*la $s0, Fib*" (that means $s0 = addr(Fib[0])) in the **.text** section. The seventh value of fibonacci sequence is $F_6 = 8$.

   * The sequence F_n of Fibonacci numbers is defined by the recurrence relation: $F_n = F_{n-1} + F_{n-2}$, with $F_0 = 0$ and $F_1 = 1$.