Computer Architecture (Spring 2021)

Homework #2

1. In SPIM, write a MIPS assembly program that generates Fibonacci sequence with the first *n* (*n*<40) numbers. Verify that the program is correct by simulation. The variable n is received from the console. The result sequence 0, 1, 1, 2, 3, 5, 8, 13, . . . is shown in the next line on the console with space to separate them.

2. Modify the I/O. Assume n is in the first location of the data segment. Put your output 0, 1, 1, 2, 3, 5, 8, 13, ... starting from the second location in the data segment.

Due day：Submit the text file with the two programs to e-learning by 23:55 on 4/15.

Notes：

1. You could use a register as a counter for the looping. And you might want to use *beq*, *bne*, *blt*, etc. to control your looping.
2. Do your homework on your own. You could have discussion with your classmates, but no copying is allowed.