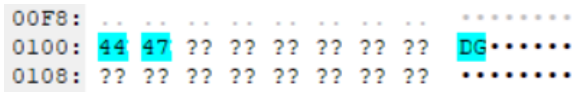
Homework 0

(With all homework assignments in this course you must show your work to receive credit.)

1. Write AVR instructions that put the ASCII values for your initials starting at SRAM memory address 0x0100. For example, here is a screenshot of the SRAM with my initials:

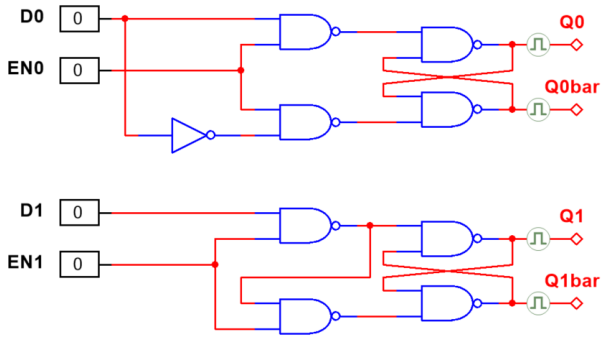


   Note: the posted solution only has 6 lines.

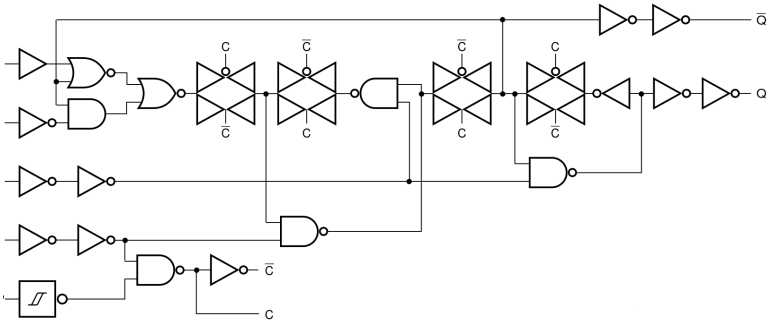
   As with all code submissions in this class, cut and paste your code as plain text into your homework. (Never paste images of code!) Also, include a screenshot of the affected SRAM memory after the code runs.

2. Design an SR latch using a single DFF from a 7474 IC and no other components.

3. Compare the functionality of the two sequential circuits shown. Which circuit performs better and why?



4. Analyze the flip-flop circuit shown. Determine and briefly describe the function of each input.



5. From Wakerly, problems 10.8 and 10.9