COLORADO SCHOOL OF MINES
ELECTRICAL ENGINEERING & COMPUTER SCIENCE DEPARTMENT

CSCI-410
Elements of Computing Systems
Spring 2014

ECS-04A

Read the Chapter 4 Supplement (SUP-04).

In this assignment, you will implement subroutines for the thirteen shift/rotate functions listed in the supplement. A seed program is provided for you and all you have to do is add the subroutines where indicated. Note that the first subrouting, SLL, is done for you so that you can see what is being looked for in terms of level of documentation.

Be sure to follow the subroutine naming conventions presented in the supplement, as these provide the interface between the driver program and your code. For your reference, note that the driver program is, itself, implemented as the MAIN subroutine.

You should note that the seed program follows the same pattern that your Python code has and that your VM and Jack code will. First, there is a short bootstrap code that is invoked which calls the main subroutine. The main function then implements the top level logic and invokes other subroutines as needed.

Efficiency of implementation is not a concern (though each function does need to complete in a reasonable amount of time), thus it is completely reasonable to build up functions hierarchically which should significantly speed development.

Your submission project and directory should both be named using “04B” since this is a completely separate project from 04A. The assembly program that is to be graded MUST be called “sup04B.asm” as that is what the grader’s script will be looking for.