COP 3502 Suggested Program Edits: Queues, Stacks (Week 4 Programs)

1) Change the main of queuell.c so that instead of hard-coding enqueues and dequeues, you randomly generate 100 enqueues or dequeues, with a probability of 60% of an enqueuer happening and a 40% probability of a dequeue happening. Guard against a dequeue from an empty list and print out appropriate information so you know the simulation is working properly.

2) Change queuell.c so that the node struct stores inside of it another struct, instead of just an integer. Write your own main to test that the code still works.

3) Update stack.c so that the stack doubles the size of the internal array when it fills up instead of not allowing another push operation. If you want, also implement shrinking the internal array by 50% if the array is less than 25% full and larger than size 10.

4) Update evalpostfix.c such that you error check for valid input - break out of the loop after the first invalid token is entered. If the stack size is more than 1 at the end, detect this also and mark as invalid.

5) Update evalpostfix.c to allow character input of operators and read in all tokens as strings initially, assuming all integers are operands.