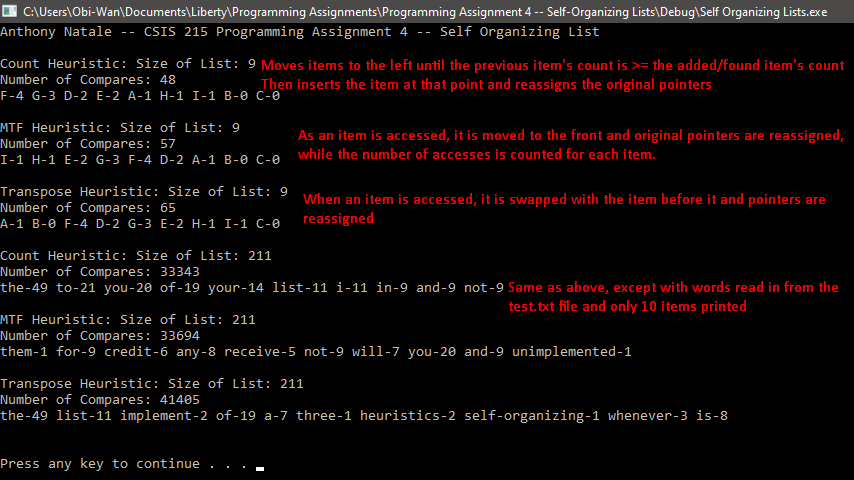
Running Output:



Notes:

This program was difficult to check for accuracy, other than counting frequency and verifying the first few iterations, because to do so I would have had to hand-write each heuristic’s output after each iteration. I did this somewhat with the first part (the char heuristics) to make sure things were working properly, and reused the functions for the string-file tests.

Also, I’ve done the best I could given the instructions, but my count heuristic may have been slightly off-for example, if an item was searched for in the count heuristic, the assignment instructions didn’t seem very clear on whether that item should be moved to the front of its frequency group (those items with the same count value) or moved to the end of those items.

The book, when describing this heuristic on page 320, said

“Whenever a record is accessed, it *might* move toward the front of the list *if* its number of accesses becomes *greater* than a record preceding it”

I found the word “might” used there to be a bit ambiguous, so I took my best guess.

My requirement, then, for items to be moved left was that the count of the preceding item must have been *greater* than that of the item being moved, else the item would stop moving left.

As a result, such an item was left on the end, hence the appearance of “I-1” in the 3rd to last position in the char count heuristic print out rather than in the 5th to last position.

# Integrity Statements

1. I have not shared the source code in my program with anyone other than my instructor’s approved human sources.
2. I have not used source code obtained from another student, or any other unauthorized source, either modified or unmodified.
3. If any source code or documentation used in my program was obtained from another source, such as a text book or course notes, that has been clearly noted with a proper citation in the comments of my program.
4. I have not knowingly designed this program in such a way as to defeat or interfere with the normal operation of any machine it is graded on or to produce apparently correct results when in fact it does not.