RASM-4

Due Apr 27 by 3:30pm **Points** 100 **Submitting** a file upload
Available until Apr 27 at 3:30pm

This assignment was locked Apr 27 at 3:30pm.

For this assignment, you will be creating a Menu driver program that serves as a text editor and save the resulting text to a file. You must be able to enter new strings manually and/or via a file (input.txt). All additions are additive (i.e. i can call 2b 5 x times and 5 copies of the text file would be stored in the data structure (linked list of strings). Use the enclosed file for possible input. Do not load automatically, only via the menu.

input.txt

```
               MASM4 TEXT EDITOR
        Data Structure Memory Consumption: 00000000 bytes
        Number of Nodes: 0
<1> View all strings

<2> Add string
    <a> from Keyboard
    <b> from File. Static file named input.txt

<3> Delete string. Given an index #, delete the entire string and de-allocate memory (including the node).

<4> Edit string. Given an index #, replace old string w/ new string. Allocate/De-allocate as needed.

<5> String search. Regardless of case, return all strings that match the substring given.

<6> Save File (output.txt)

<7> Quit
```

Testing: If you read in the input file and then immediately save, the output file should be identical to the input file in every way (i.e. # of bytes).

Upload your .s file.

s/

Prof. B.

Test Case #1:

- Option <1> View all strings

    - Result: [EMPTY]
- Option <2><a>
    - Input: "Given to you during demo time"
- Option <1> View all strings
    - Result: [0] Given to you during demo time
- Option <7>
    - Result: Exit the program

Test Case #2:

- Option <2><b>
- Option <6>
- Option <7>
    - Result: Exit the program
- console: diff -s input.txt output.txt
    - Result: [SAME]

Test Case #3:

- Option <2><b>
- Option <2><a>
    - Input: "Segmentation Fault"
- Option <1> View all strings
    - Result: input file + new string from above
- Option <5>Search (with_the_intention_of_deleting_one_of_those_lines)
    - Input a string determined by me during demo time
- Option <3> Delete
    - Enter the index from above
- Option <1> View all strings
    - Result
- Option <5>Search (with_the_intention_of_deleting_one_of_those_lines)
    - Input same same string as before (verifying that delete worked)
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