

PF-Project: Ultimate Text Editor

Objective

- Command over CString handling

PART 1: **THE EDITOR - File Making**

Write a program which must hold the document in the following format. [The Main Structs are the following.](#)

<pre>struct Line { int Size; char* Cs; };</pre>	<pre>struct Document { int NofLines; Line* Ls; };</pre>
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Make the CONSOLE text editor which should allow arrow keys to move cursor up and down and right/left and must allow adding character string anywhere in the console screen. The main data must be held inside **Line** and **Document** struct. After the user finishes writing USER can enter/Press SAVE-Document (option) and the document must be written in the TEXT-FILE. How to read with KEYBOARD FILE-LINK is [HERE](#) and [HERE Ctrl based Key Hook](#).

PART 2: THE EDITOR - Processing the Text File

Here are the functionalities

1. **const char* ToUpper(const char* A)** (Takes an array as input and convert it into upper case letters)
2. **const char* ToLower(const char* A)** (Takes an array as input and returns its into lower case letters)
3. Finding a word (You will read a file and search for a word inside that file)
 - a. Case sensitive
 - b. Case Insensitive
4. Finding a sentence (You will read a file and search for a sentence inside that file)
5. Finding a substring(sub-word)
6. Replace with new word
 - a. Replace the first word only
 - b. Replace the whole file words
7. AddPrefixToWorld(replace a specific word let's say "abc" with "Prefixabc")
8. AddPostfixToWorld(replace a specific word lets say "abc" with "abcPostFix")
9. AvgWordlength(Find the average length of the file word)
10. SubstringCount
11. Find special characters count.
12. Find Number of Sentences - Paragraphs count
13. Find Largest-Word length
14. Merge multiple files into one file
15. Find Smallest-Word length word
16. *find a word that contains the alphabets for highest number of other words in the file:

• *this is used in games, where they give you a big word, and ask you to make smaller words out of it, for example: make words from the letters in ENCYCLOPEDIA e.g. CYCLE, POD, CLAD etc. **Your words should be from the same file***

(Maximum points)

17. **FIND - REPLACE FROM CURRENT CURSOR**

- a) Next
- b) Next All
- c) Previous

d) Previous All

18. Largest paragraph Word length

19. Read function that will output txt file but your file should be password protected your program first ask the password before the reader starts reading.

20. Encoding the file: you will be provided a file containing an encodings of each character with some special character. Your program should encode the text file and output it into ProcessedFileEcoded.txt, and if the same file.

Try Using: [VIM Text Editor - https://www.vim.org/](https://www.vim.org/)

JUST LIKE VIM - Text Editor Start - your program must have two modes - Processing mode and one editing mode. In processing mode the current loaded program should be instructed with the tasks (20 required Tasks) to perform in such a way that the loaded document must be edited at run-time and on saving the option the edited document should be updated in the text file.

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