

Programming 2
Cptr.212

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Assignment #4 "Text Editor"

Create a command line program that allows users to edit a text file. The program must open a file from an argument to the program, respond in intelligent ways to user input, and save the edited file.

Text editing in C will require us to retrieve and write to files — as before — but will also necessitate that we work more closely with arrays, which we will use as buffers. We will load the contents of the file to character buffers, and use ANSI escape sequences to navigate the printed text. ANSI sequences can also be used to provide appropriate user feedback. It is expected that students will create several different means of editing text in their program; students should consider what they would want in a text editor, what is possible, and what common text editors are often lacking.

To allocate memory for the text, we will use pointers in our code. We will also use the malloc library function. Read chapter 11 (*Pointers*) in Gustedt. It might be easier to grasp where we are going if you look ahead to the next two chapters; if you find it helpful, try skimming or reading chapters 12 (*The C Memory Model*) and 13 (*Storage*). As always, look back in the textbook as necessary; chapter 5 (*Basic Values and Data*) and section 6.1 (*Arrays*) will be helpful for much of the first part of the semester.

[Wikipedia's article on ANSI escape code](#) is a good reference on the subject.