

CSC 460
Assignment

The openfile program code gives an example of reading parameters from the command line when the program is executed. The program shows how to extract the file name, append extensions, determine if a file exists, remove a file, open files, and read lines from one file and write the lines to another file. The program will prompt the user for an input file name if one is not supplied when the program is executed. The program will use a default .IN extension for the source file if an extension is not given. The program will generate a target file from the source file name. The program will back up an older target file before overwriting it with the newer target file.

Examine the code. Look up the functions that are used. Understand the code and functions.

Write your own open file program that will accept zero, one, or two parameters when the program is executed.

If no parameters are entered:

- The program will prompt the user for the source file name.

- If no extension is given with the source file name, the .IN will be used.

- If the source file exists, the program will prompt the user for a target file name.

- If no target file name is given the program will generate a file name from the source file name and use the .OUT extension.

- If a target file name is given without an extension, the .OUT extension will be used.

- If the target file exists, it will be backed up first and then opened.

If one parameter is entered, it will be used as the source file name.

- If no extension is given with the source file name, the .IN will be used.

- If the source file exists, the program will prompt the user for a target file name.

- If no target file name is given the program will generate a file name from the source file name and use the .OUT extension.

- If a target file name is given without an extension, the .OUT extension will be used.

- If the target file exists, it will be backed up first and then opened.

If two parameters are entered, the first will be used as the source file name and the second will be used as the target file name.

- If no extension is given with the source file name, the .IN will be used.

- If a target file name is given without an extension the .OUT extension will be used.

- If the target file exists, it will be backed up first and then opened.

The program will not allow the target and source to have the same name and same extension.

The file open function should accept the argument parameters from the command line and return an appropriate enumerated error code. The file handles and file name variables can be global for this assignment.

In all cases the program will also create two temp files for writing.

Use a simple line read write main to demonstrate the file open and file close functions.

The file close function should close only the files that are opened. (look at fstat)