

CS270 - System Software

Lab Assignment #6

Spring 2021

The purpose of this assignment is to give you practice using some of the UNIX system calls to build a new utility program.

You are to write a C/C++ program, using system calls, that implements a command that has similar functionality to the standard `ls` command. It should support the following options:

- If invoked without any options, it should simply list the names of the files in the current directory, like the regular `ls` command.
- If invoked with the `-t` option, it should list the files, along with the dates/times associated with each file - i.e., the last accessed date, the last modified date, and the last status change date.
- If invoked with `-f`, it should print a list of files, along with a “guess” at which type of file it is. In other words, this option should list the files, and then utilize the functionality you built for assignment #5. Specifically, this command should try to guess postscript, pdf, DOS/Windows, other ASCII, ELF object and executable, and unspecified binary files.