iProject1 Write Up

Jenna Daly

Jenna.Daly1@Marist.edu

September 15, 2019

1 iProject 1

1.1 Lab 1

1. What are the advantages and disadvantages of using the same system call interface for manipulating both files and devices?
An advantage of using the same system call interface to manipulate files and devices is we can treat the devices like files, and files and devices are already similar to start, so we can apply system calls like read(), write(), and reposition() as we would to a file. It makes it easier because we can call the two in the same system calls. A disadvantage is it may come across with the files and devices seeming very similar, when in fact the system calls are not the same below the surface.

2. Would it be possible for the user to develop a new command interpreter using the system call interface provided by the operating system? How?
The user could develop a new command interpreter. We use system calls to provide different functionalities, some of which we could hand off for use and development of a command interpreter.

1.2 Lab 2

1. How is your console like the ancient TTY subsystem in Unix as described in https://www.linusakesson.net/programming/tty
My console is like the TTY subsystem in Unix for a few reasons. One is both provide backspace functionality within the OS. Though, for the TTY subsystem, apps can disable it and do it on their on if they choose that option. Also, the TTY driver can handle multiple programs at once and choose to suspend ones when they try to write to the terminal. I believe my console will also use that functionality as we move through the projects. They also have similar processes, ie running, uninterruptible sleep which is equivalent to my OS's idle, etc.

2. LaTex?
My console is like LaTex in that it can handle input and provide an output. LaTex takes in certain things like two back slashes to indicate a new paragraph. Likewise my console takes in strings after status and then displays it in the taskbar. Both can work dynamically with different text functions.