Daee Kang

CS 370

April 26, 2019

Final Project Proposal

For my final project for xv6, I have decided that I would like to focus on implementing a proper copy program. Almost every modern OS has this built in as the command ‘cp’ while xv6 does not have it. Cp is used all the time and the principle of copying files is often overlooked, it’s important not to look over the importance of copying files and how they are done.

Copying files is an essential part of an OS. More often than not, we have personal files that need to be duplicated, even such as this document. Without proper copying, we would have to manually open an old and new file and copy and paste it ourselves while a copy program could happen in the blink of an eye. This is especially the case when you are copying large amounts of data that are in folders as well. In Linux for example, you are not only able to cp only file at a time, you are able to recursively copy every file in a directory.

I will be trying to implement a simple copy and paste program where I will take in a current file and write it to a new file as well. I believe this is as simple as reading the contents of a file and at the same time, writing it to a file of a desired destination. From the get-go, it seems relatively simple so I would also like to implement to recursive directory copying and pasting. I believe that would be the more useful and involved component that I would focus on. If all goes well, I may even look into copying one file into more than 1 directory and even attempt to multi-thread that process, but I believe that would only be applicable for big files.

So the three steps I will be trying to implement would be starting with single file cp’s, multiple file cp’s, and maybe multithreaded cp’s if the recursive cp does not hold me back for too long.