Operating Systems Assignment 2

Tom Husen

1. For part 1, we needed to use the lseek operator along with the read operator to read a specified section from a file, and than print that section to standard output – with a new line every 64 characters. The first part (reading a file in and using lseek to navigate within it) wasn’t too difficult but the new line every 64 characters had me stumped for a while. After constructing a 30 some line loop that was so close to working but not quite I decided to start fresh and follow the problem statement line by line. This ended up being a great idea because my new loop worked, and since it was only 10 lines long far easier to understand. The program now works properly where if you give it a text file, starting position, and number of bytes to read, it will read that many bytes starting at the start position, unless it reaches the end of the file when it will stop. It then outputs this to standard output. The book was a huge help for this section too I thought.

**Files:** lseekRead.c - the 3 parameters are filename, starting byte, number of bytes to read. Everything in this program works as it’s expected too, but I did run into some issues when executing it on NX (I emailed you about this too). I think it must just be something weird on NX so hopefully it works on your machine.

1. Part 2 ended up being pretty tricky, at least at the very end. A lot of what we did for part 1 ended up being very helpful with this section. I used a similar method of lseek and read to input all of the text into a buffer, and then we had to create a new buffer of the same size (using malloc) and move all the chars over in inverse order. For testing purposes to get the lseek, read, and buffers all working correctly I was just printing to standard output to make sure that it was all working. Once it was all working I tried and tried and tried to get it to properly print to the 2nd parameter file but just could not get it to work!! That’s the only part that does not work properly. Like I said in my email I’m out of town this weekend but on Monday I may come in to figure out what is happening.

**Files:** reverse.c - 2 parameters are fileToRead and fileToSaveTo.