

Lab Two

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1 PROBLEM ONE

Q: How is your console like the ancient TTY subsystem in Unix as described in Linus Akesson's blog post ?

The teletype (TTY) subsystems are the original terminals used for input and output on the first computers. Specifically in Unix environments, the operating system's kernel handled all low-level aspects related to the TTY and line editing. Although no longer in common use today, the operating systems written in the class share some similarities with the TTY subsystems of yore.

The easiest connection to make is how line editing is handled. Both our system and the Unix subsystem offer a basic buffer in which to edit our current line. In our operating system, on a user level, we offer a backspace functionality, but on a kernel level, there are functions that clear the line.

While as of writing we haven't implemented this functionality, the processes and program signaling as stated in the slides look remarkably similar to how Unix handles programs. System calls are placed on a running, suspended, or killed basis. For us to check whether or not any given program is running, we also need to make sure that there aren't any other processes concurrently running.