

Lab Two

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1 PROBLEM ONE

1. How is your console like the ancient TTY subsystem in Unix as described in <https://www.linusakesson.net/programming/>?

My operating system shares a few similarities with the TTY subsystem in Unix. The first of which being, how it handles kernel and user modes. Both systems operate with a clear distinction between kernel mode, where privileged operations occur (mode 0), and user mode. In user mode, regular applications run with limited access to system resources (mode 1). This separation ensures that user-level applications cannot directly interact with the hardware or critical system resources, enhancing security and stability.

Additionally, both systems rely on device drivers as intermediaries between software and hardware. A device driver provides the necessary interface, allowing the operating system and applications to communicate with hardware devices. By abstracting hardware control to the software layer, these drivers ensure efficient and controlled access to hardware components, without requiring applications to handle the low-level specifics of the hardware directly.