IT 1100 : Introduction to Operating Systems

Chapter 1

Shell vs Bash vs Terminal vs TTY vs PTS vs Virtual Console

What is the difference between all of these things? This is a commonly asked question. Many people use them synonymous and many people use them incorrectly.

The obvious difference is this:

A shell is the home of a turtle, bash is what you do to a pinata, a terminal is at the end of an electric wire, tty should be a texting shorthand, pts is the abbreviation for points, and a console is a kind of cabinet. Smile - that was funny.

In terms of Linux:

Shell is the wrapper around our connection. Basically it is the shell in which we will type our commands.

Bash is the language of our commands that the shell uses. It stands for Bourne Again Shell.

Terminal is the program used to open/view the Shell which speaks in the Bash language. Software now does what hardware used to do. Terminal, TTY and Console used to mean pretty much the same thing.

TTY stands for teletype. It is our literal input connection that allows us to send commands to a computer. Such as a keyboard, mouse and other serial devices.

PTS stands for pseudo-teletype. It is a pseudo input connection that allows us to send commands to a computer. It acts like a physical connection without being directly connected. Such as an SSH connection.

Virtual Console allows us to have multiple desktops on one machine. To switch between virtual consoles in a Linux GUI it is ctrl+Alt+Fn (Alt + F7 is the default console)

Let’s Begin

Most of your homework will be completed through a terminal and on the Linux computer called scratch.

Instructions to access this machine from any computer are provided in the Canvas page called SSH Connect From Home.

Open a terminal connection to scratch and then Read and Complete the Exercises in the Book

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