Section 18 Lab
LPIC-1, Exam 1 (101-500)
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Recommended Linux Distributions for this exercise:

- CentOS version 7
- Ubuntu Desktop 18.04LTS

Note: For a successful lab session, it is assumed you are using the recommended Linux distribution(s) and the recommended version, and that your Linux systems are booted. In addition, it is assumed that you can log into the system as a standard user as well as either the root account or a user with super user privileges. Also, you should have successfully completed the prior sections' labs and sessions & viewed this section's videos.

Follow these actions to explore concepts and commands covered in this section (but please feel free to explore as much as you want. And don't forget that you can get help on the usage of these commands through the man pages. Type in **man** and follow it with the utility name, then press Enter to view information on the utility):

1. Log into either your Ubuntu or CentOS distro tty2 terminal, using the username and password you created when you installed the system.
2. Be ready for the next two steps (I suggest you go ahead and read those steps), because after you complete this step, the action needed in the next few steps may need to happen quickly.
   At the command prompt, start a reboot of the system by typing **reboot** and pressing Enter.
3. If needed, press the Esc key to see the boot menu. (If you are using the recommended Linux distributions for this lab, the boot menu will be a GRUB2 bootloader menu.)
4. Press the **e** key to enter into edit mode for the first item in the boot menu.
5. Press the Ctrl+c key combination to enter into the GRUB command line from the GRUB2 boot menu's edit mode.
6. At the grub> prompt, type **help** and press Enter. You may need to press the spacebar key multiple times to get back to the grub> prompt.
7. At the grub> prompt, type **date** and press Enter to see what the system thinks is the current date and time.
8. Leave the GRUB command line, by pressing the **Esc** key. You should be back to the GRUB2 edit mode.
9. Using the down **arrow key**, move your cursor down to the line that starts with the word **linux** or **linux16**.
10. Press the **end** key on your keyboard to move your cursor to the end of the line that starts with the word **linux** or **linux16**.
11. Press the spacebar key on your keyboard to add a space between the last kernel parameter and your cursor.
12. Type in **single** (do NOT press Enter).
13. Press the Ctrl+x key combination to accept the edit to the GRUB2 boot menu line, and start the boot process with the new kernel parameter being passed.
14. When you get the (or press Control-D to continue): prompt, take a moment to read what is on the screen. You have entered the system into the systemd rescue target (which was called single user mode, when SysVinit was used for system initialization).
15. Press the Ctrl+d key combination to leave the systemd rescue target, and allow the system to boot into a fully functioning Linux system.
16. Once the system has completed booting, log into the tty2 terminal, using the username and password you created when you installed the system.
17. At the prompt, type **dmesg** to view the current kernel ring buffer (lots of information will go by on the screen, and that is OK).
18. Determine which boot log files you have, if any. At the prompt, type **ls /var/log/boot*.*** and press Enter. Record what you find.