

## Section 17 Lab LPIC-1, Exam 1 (101-500)

By Christine Bresnahan

### Recommended Linux Distributions for this exercise:

- CentOS version 7
- Ubuntu Desktop 18.04 LTS

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. If you are logged into the CentOS distro, and do not have access to use the **sudo** command for super user privileges, log into the root account, by typing **su -** and pressing Enter, then enter the root account's password, you created when you installed the system. You will need to NOT enter **sudo** whenever it is listed for a step. WARNING: Be careful in the root account!
3. Determine if your system uses UEFI or BIOS firmware, by typing **ls /sys/firmware/efi** and pressing Enter. If you get a "file not found" error message, your system does not use UEFI. If you don't get the message, your system does use UEFI firmware.  
If your system is using UEFI, skip to step #6.
4. Most likely your system is using the GRUB2 bootloader. View the files in the **/boot/grub** directory first, by typing **ls /boot/grub** and pressing Enter.
5. View the files in the **/boot/grub2** directory next, by typing **sudo /boot/grub2** and pressing Enter. From the information displayed in this step and the previous one, which directory does the GRUB2 **grub.cfg** file reside? Record your findings.
6. If your system is NOT using UEFI, skip this step.  
Most likely your system is using the GRUB2 bootloader. View the files in the **/boot/efi/EFI/distribution-name/** directory, by typing **sudo /boot/efi/EFI/\*/** and pressing Enter. Record the exact name of the directory where the **grub.cfg** file resides.
7. Search for the **set root=** settings in your system's GRUB2 configuration file, by typing **sudo grep "set root" /boot/GRUB-Directory/grub.cfg** and pressing Enter. (Don't actually type **GRUB-Directory** but instead type the GRUB2 directory you determined that your **grub.cfg** file was located in, such as **grub** or **grub2**.)
8. Search for the **initrd** settings in your system's GRUB2 configuration file, by typing **sudo grep "initrd" /boot/GRUB-Directory/grub.cfg** and pressing Enter. (Don't actually type **GRUB-Directory** but instead type the GRUB2 directory you determined that your **grub.cfg** file was located in, such as **grub** or **grub2**.)
9. Look at the contents of the default GRUB2 key settings file, by typing **cat /etc/default/grub** and pressing Enter.
10. View the files in the GRUB2 configuration directory, type typing **ls /etc/grub.d/** and pressing Enter.