Section 19 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. 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 this system's default systemd initialization target by typing **systemctl get-default** and press Enter. Record your findings.
4. Look at the various service unit files on your system by typing **systemctl -t service list-unit-files** and pressing Enter. This will put the display the service units with the **less** pager.
5. Record a few service names shown in the display from the previous step, and then press the **q** key to quit out of the **less** pager.
6. Pick one (or more) of the services you recorded in the previous step and determine their current status, by typing **systemctl status *service-name*** and pressing Enter. (Don't actually type ***service-name*** but instead type the name of the service you recorded in the previous step.) Note: You don't have to include **.service** in the service's name, but try the command with and without **.service** to see there is no difference. Record whether the service is **active (running)** or **inactive**.
7. View the files and their classification in the **/etc/systemd/** directory, by typing **ls -F /etc/systemd/** and pressing Enter. Notice that some files are actually directories and others are configuration files.
8. View the system's systemd service unit files in the **/etc/systemd/system** directory by typing **ls /etc/systemd/system/*.service** and pressing Enter. This is the typical location for service files that are NOT in **/usr/lib/systemd/**system. (Recall that files in the **/usr/lib/systemd** directories override files in the **/etc/systemd** directories.)
9. View the system's systemd service until files in the **/usr/lib/systemd/system** directory by typing **ls /usr/lib/systemd/system/*.service** and pressing Enter.
10. Use the **systemctl** command to reboot your system using a target file, by typing **sudo systemctl isolate reboot.target** and pressing Enter. Note: You don't have to include **.target** in the target's name, but consider trying the command with and without **.target** to see for yourself.
11. Once the system is rebooted, do step #1 and #2 again in this lab, and then come back to this step. Determine if your account on this TTY terminal has wall messages enabled, by typing **mesg** and pressing Enter. Record whether your received a **is y** or a **is n** message.
12. If you received a **is n** message in the previous step, type **mesg y** to turn on wall messages for your account in this current login session.
13. Shut down the system in two minutes and add a wall message by typing **sudo shutdown +2 "Hello World. I am shutting down"** and press Enter.
14. Once the system shuts down, restart it, log back in and try other methods of shutting down the system.