Section 5 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 as well as viewed the videos in this section.

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. Start the process of creating a simple text file, by typing **echo "Hello World" > lab5.txt** and pressing Enter.
3. Add a second line to the file, by typing **echo "Berry Good" >> lab5.txt** and pressing Enter.
4. Add a third line to the file, by typing **echo "Zero Problems" >> lab5.txt** and pressing Enter.
5. Add a fourth line to the file, by typing **echo "Apple Tough" >> lab5.txt** and pressing Enter.
6. View the file's contents, by typing **cat lab5.txt** and pressing Enter.
7. Try using STDIN redirection by typing **tr o O < lab5.txt** and pressing Enter.
8. Try using STDOUT redirection by typing **cat lab5.txt > lab5New.txt** and pressing Enter.
9. View the new file's contents by typing **cat lab5New.txt** and pressing Enter. This file's contents should be the exact same as the **lab5.txt** file's contents.
10. Append content via STDOUT redirection by typing **echo "Appended text" >> lab5New.txt** and pressing Enter.
11. View the appended text by typing **cat lab5New.txt** and pressing Enter. You should see the text from the preceding step at the file's end.
12. Cause an error message to display to STDERR by typing **cat lab5NoSuchFile.txt** and pressing Enter. You should see an error message display to your screen.
13. Trying using STDERR redirection, by typing **cat lab5NoSuchFile.txt 2>> lab5New.txt** and pressing Enter. If done properly, this command will append the error message to the end of the **lab5New.txt** file.
14. View the file's contents by typing **cat lab5New.txt** and pressing Enter. You should see the text from the preceding step at the file's end.
15. Add more text to the **lab5New.txt** file, by typing **cat lab5.txt >> lab5New.txt** and pressing Enter.
16. View the file's contents by typing **cat lab5New.txt** and pressing Enter. You should see the text from the preceding step at the file's end.
17. Determine how many times the word "Hello" is in the file using a pipe redirection, by typing **grep Hello lab5.txt | wc -l** and pressing Enter. (If you have trouble with this command, make sure you are using a lowercase L as an option on the **wc** command, and not a number one.) The resulting number should be the number of times the word "Hello" is in the file.
18. Try saving the information from the above step as well as viewing it using pipe redirection and the **tee** command, by typing **grep Hello lab5.txt | wc -l | tee keep.txt** and pressing Enter.
19. View the **keep.txt** file, by typing **cat keep.txt**. Does the number contained in the file match the number you received in the previous step? It should.
20. Using redirection and command building try to remove all the text files you just created in this lab, by typing **rm -i $(ls *.txt)** and pressing Enter. Only type in **y** and press Enter for files you wish to delete.