Section 12 Lab
LPIC-1, Exam 1 (101-500)
By Christine Bresnahan
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. Try the three commands that display environment variables: **set**, **env**, and **printenv** (If you desire to look at the information more slowly, pipe the STDOUT into the **less** pager.)
3. View the settings of the following environment variables, using the commands listed (Be aware that not all the variables will be set on your system, so they'll display a blank line if not set). Using what you have learned in the session, make an attempt to record for what each variable is used and its current setting on your system:
   echo $USER
   echo $LOGNAME (notice same as above)
   echo $EDITOR
   echo $VISUAL
   echo $BASH_VERSION
   echo $GROUPS
   echo $HISTFILE
   echo $HISTSIZE
   echo $HOSTNAME
   echo $LANG
   echo $LC_ALL
   echo $LD_LIBRARY_PATH
   echo $TZ
   echo $UID
   echo $PATH
   echo $PWD
   echo $PS1
   echo $PS2
4. Modify your shell prompt, by typing **PS1="NewPrompt: "** and pressing Enter. Your command-line prompt should change as soon as you pressed the Enter key, if you issued the command correctly.
5. View the new variable setting again, by typing **echo $PS1** and pressing Enter.
6. Display your Bash shell level, by typing **echo $SHLVL** and pressing Enter. Record the number displayed.
7. Enter into a subshell, by typing **bash** and pressing Enter. You should notice your command-line prompt has changed, because the PS1 environment variable was not set to survive entrance into a subshell.
8. Check that you are in a subshell, by typing **echo $SHLVL** and pressing Enter. Notice the number displayed. The number should be one higher than the number you recorded in step #6.
9. Leave the subshell by typing **exit** and pressing Enter. You **NewPrompt:** prompt should return.

10. Use the **export** command on your $PS1 environment variable setting, by typing **export PS1="NewPrompt: "** and pressing Enter. Your command-line prompt's appearance won't change in this case, since you changed your prompt earlier, but now the setting should survive a subshell (unless the PS1 environment variable is set in an environment file.)
11. Enter into a subshell, by typing **bash** and pressing Enter. You should notice your command-line prompt did NOT change.
12. Check that you are in a subshell, by typing **echo $SHLVL** and pressing Enter. Notice the number displayed. The number should be one higher than the number you recorded in step #6.
13. Leave the subshell by typing **exit** and pressing Enter.
14. Try modifying your prompt, by changing the **PS1** variable to different settings.