CS232L Operating Systems Lab
Lab 01: Introduction to Bash - Part 1

CS Program
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1 Introduction

The Linux command line follows the Unix Philosophy [1]:

- Write programs that do one thing and do it well.
- Write programs to work together.
- Write programs to handle text streams, because that is a universal interface.

The first principle has resulted in many small programs that excel in doing what they do. These programs are available as binary executable files on your system. Every time you run a command, you are basically running one of these programs. The program will run and do its thing and the output will be displayed on the screen.

2 Resources

This is an introductory lab. We'll be using the following tutorials: https://ryanstutorials.net/linuxtutorial/ Tutorials 1-7 (excluding 6) will be the subject of this lab.

3 Exercises

See if you can answer the following questions/commands in the command line:

1. What's a shell and which shell are you in?
2. What's a Home Directory and what's your Home Directory?
3. What's a Working Directory and which directory are you in?
4. What's an Absolute Path?
5. What's a Relative Path?
6. What's the largest file inside the directory /usr/bin?
7. What's the most recently created file inside the directory /usr/bin?
8. List all the hidden files and directories in your home directory.
9. What does the command "file" do?
10. Search for the "-h" option of "ls". What does it do? Use it.
11. Make the directory "dir9/subdir8/subsubdir7" using one command only, even if dir9/subdir8 don't exist.

12. While staying in your home directory, create an empty file dummy.txt in dir9/subdir8/subsubdir7.
13. While staying in your home directory, copy the files zip, zipgrep, zipinfo from /usr/bin to dir9/subdir8/subsubdir7
14. Move all files from dir9/subdir8/subsubdir7 to dir9/subdir8
15. Delete the dir9/subdir8 directory
16. List all the files in /etc whose second letter is c.
17. Copy all of them to dir9/subdir8.
18. Among them delete all those which contain a digit.

References

[1] Raymond Eric S. *"Basics of Unix Philosophy" The Art of Unix Programming.* Addison-Wesley, Professional.