

PHYS 210 LAB 1 Tuesday 6th, 2016

1 Command line basics

Before starting, play around with the commands covered in the lecture `ls`, `cd`, `pwd`, `chown`, `wc`, `less`, etc. Read their help messages and man pages. If you're new to UNIX command line interfaces, get a feeling for using the terminal and navigating the directory structure. For example,

- Check what directory you are currently in (`pwd`). If it isn't your home directory, move to it (`cd`).
- Show the files and directories in your home directory (`ls`).
- A useful set of options to remember is `ls -halt` to list all files (`-a`), sorted by the last time they were modified (`-t`), showing additional information (`-l`), with easy to read units for the file size (`-h`).

1.1 Creating files and directories, permissions

- Create a new directory somewhere in your home directory with the name `yourusername_assignment_1` to store the files you will create for this assignment.
- Change the permissions to be readable and executable by everyone but writeable only by you.
- Create a text file in your newly created directory containing the exact commands you used to create it and change its permissions. Name this file `assignment_1.1_commands.txt`.

1.2 Listing files

1. List all files in your home directory, sorted chronologically and showing their permissions. Write the result to a file named `assignment_1.2_home.txt`
2. List all files in the root (`/`) directory, showing their permissions. Write the result to a file named `assignment_1.2_root.txt`
3. Create a text file containing the exact commands you used to create it the previous two outputs. Name this file `assignment_1.2_commands.txt`.

1.3 Text file manipulation

- With the editor nano open the file `course_organisation.txt` which resides in your home directory. Justify the entire text (typographic alignment) with the built-in Justify command.
- Using the `grep`, `wc` and pipe (`"|"`) commands, calculate in how many lines the pattern "the" appears in the justified text

- create a text file containing the exact command you typed above. Name this file `assignment_1.3_fileedit.txt`.

1.4 Submitting your assignment

As explained in the lecture, copy the directory with your results to `/home2/phys210/yourusername/`.

1.5 Remote access (TO DO FROM HOME)

- Follow the instructions on Connect on how to set up a remote connection to your account.
- Open an `ssh` session on `ssh.phas.ubc.ca` and ensure that everything is working like in the terminal you've been using in class.