Unix Navigation & Web Page Design

Project #1
Computational Physics Lab
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[Due by January 15th]

Unix Assignment

Part 1

Starting in your home directory create a comphys/ directory and three subdirectories names Dir1/, Dir2/ and Dir3/. Place a copy of your "~/.cshrc" file in Dir1/, call the copy mycshrc. Create a file in Dir2/ which contains a listing of the files in the directory above your home directory (one file per line), call that file userlist. Create a file in Dir3/ which contains a listing of the files in /usr/local/ (one file per line), call that file locallist. Place a file containing the differences between your .cshrc and the one at /etc/csh.cshrc in Dir2/. Name that file cshdiffs. Create a copy of the manual pages for "diff" in a file named myDiffMan in Dir3/. Now run the "ps" command to see the processes you are running on your terminal. Run the same command with the "ax" options to view all processes (not just yours) including non-terminal controlling processes (See "man ps" for more information). Use the "sort" command with appropriate options to sort numerically on the TIME output of the "ps ax" command (See the sort man page, "man sort", for usage and options on running "sort"). Save the output from your sort to the file psSortOnTime located in the comphys/ directory. When you feel that you have done this correctly run the command "history > ~/comphys/myhistory", and return to your home directory. From your home directory create a "tar" archive file of your comphys/ directory. Use the command "tar -cvf your_name-comphys.tar comphys/".

Part 2

Use the contents of your myhistory file to create a shell script to automate the execution of the commands in part 1. Call this shell script "unix_part2.sh". DO NOT USE the directory name comphys, and do not hard coded a directory name in your script. Rather have the shell script read a directory name (not comphys) from the command line; for example "./unix_part2.sh unix2".   In a shell script, variable "$1" refers to the first command line argument, $2 the second, ..., and $0 refers to the script's own name. To make a text file an executable shell script, the first line of the script must contain "#!/bin/sh".   Also the file must be given execute permission. The command to change permission is "chmod +x unix_part2.sh". Caution: be careful not to over write the files from part 1.

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Web Site Assignment:

Within your public_html directory create a web site that contains the following html files:

1. A home page (index.html) which includes your photo, your contact information, a colored background, and list of hyperlinks to html pages defined below.

   a) Your Computational Physics project web page. This web page will eventually contain the web links to your Computational Physics project and exercise html pages.

   b) A special interest page which contains at least two links to web pages somewhere on the web that you find interesting

2. Create a html page for Project 1. This html page should include the following heading information: exercise title, exercise number, your name, & today's date. Create a link from your project web page to this html page. Also include in this html page a link to a copy* of the archive file from Part 1 and a section containing the text of your "unix_part2.sh" [*Recall that web access is limited to your public_html/ directory and down relative from it.]