

Unix Navigation & Web Page Design

Computational Physics Laboratory Project #1

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Unix Assignment

Part 1

Starting in your home directory, create a `comphys/` directory and three subdirectories named `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 `localist`. Place a file containing the differences between your `~/.cshrc` file 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-code 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.]