CSCI 211: Unix Lab
Lab 4 Practice

Note:

1. You must rely on UNIX commands only to solve the problems. No manipulation on Windows is allowed (such as scrolling the PuTTY screen).

Pre-step:

Run the command "source /lab4/prac/prep.sh" exactly once.

(You may get help from the commands listed on next page.)

1. Enter the home directory. Create an archive named "lab4.tar" for everything under the "~/lab4" directory.
2. Compress the archive "lab4.tar" with gzip.
3. Uncompress the compressed archive provided by the previous step.
4. Compress the archive "lab4.tar" with bzip2.
5. Uncompress the compressed archive provided by the previous step.
6. Rename the "lab4" directory to "lab4.old".
7. Extract the archive “lab4.tar” to the home directory.
8. Redo Step 1 and 4 using one single command.
9. Renamed the "lab4" directory to "lab4.bak", extract the compressed archive created by the preceding step to the home directory using one single command.
10. Creata an alias named 'lsac' that does "ls –la --color", which lists all of contents (both visible and invisible) with detailed information and color coded (ls –la --color).
11. Save the above alias to ~/.bashrc.
12. Run a command to show the current date and time in the format of "YY-MM-DD hh:mm:ss", where YY is the last two digits of year, MM is the two digits of month, DD is the two digits of day, hh is the two digits of hour (0 – 23), mm is the two digits of minute and ss is the two digits of seconds. If a value is less than 10, a zero should be added before it. For example, the data and time of "March 03, 2013, 10:30AM" should be shown as "13-03-05 10:30:00".
13. Use the command line calendar to find out the date of the first Sunday of October, 2000.
14. What is the command that invokes the process consuming the most CPU time at present? How many percent of memory does the process use? How much memory is used in total?
15. How many processes are running under your username at present on the whole server?
16. Terminate the process that was invoked by the command "<your username>.exe" (You need multiple commands).

Pick from the following commands to finish the practice problems. You may also need commands learned from previous labs, which are not listed here.

- alias lsac='ls -la --color'
- bzip2 lab4.tar
- cal 10 2000
- bunzip2 lab4.tar.bz2
- date '+%y-%m-%d %H:%M:%S'
- echo "alias lsac='ls -la --color'" >> ~/.bashrc
- gzip lab4.tar
- gunzip lab4.tar.gz
- kill -9 PID (PID is a process ID)
- mv lab4 lab4.bak
- mv lab4 lab4.old
- ps aux | grep $USER.exe
- ps aux | grep $USER
- tar cjf lab4.tar.bz2 lab4
- tar cvf lab4.tar lab4
- tar xvf lab4.tar
- tar xjf lab4.tar.bz2
- top