

## Assignment One

### Objectives:

- Exercise some basic shell commands  
cd, mkdir, pwd, echo, date, exit, script, cat, more, less, tar, head, tail, a2ps
- Exercise basic git commands:  
git clone, git add, git commit, git push, git log, git status, git pull

### Detail requirements

1. Check out the repository (cs390) on a Linux system (git clone) from gitlab.com
2. Create a directory “hw1” under the working directory cs390
3. Change into directory hw1
4. Make sure you are under hw1 with command pwd
5. Create a few files under hw1 directory as the following:
  - a. redirect the output of “echo <urfirstname> <urlastname>” to file **me.txt**
  - b. redirect the output of “date” to file date.txt (read the man page of ‘date’ and format the output as **yyyymmdd hh:mm:ss**)
  - c. redirect the output of “ls -lt /home/CS” to file users.txt(make sure that you are under hw1 directory)
6. Enter the command “**script -f hw1.txt**” (use **man script** to learn more about program **script**)
7. reversely list all the content of directory hw1 (from Z to A), including hidden files if there are any
8. list the content (long list) of the current directory (should be hw1)
9. execute command: **cat me.txt date.txt > info.txt**
10. print/display file **info.txt** to the screen (use cat, more or less?)
11. display the first FIVE lines of file users.txt
12. display the last FIVE lines of file users.txt
13. type “exit” to exit the “script” command (there should be file hw1.txt under hw1)
14. change back to directory **cs390**
15. add directory hw1 to git repository
  - a. **git add hw1** (this will stage the directory and the files under it to be added to your local git repository)
  - b. **git commit -m "log msg such as added assignment one"**

16. change to directory hw1 and compress “large” file `users.txt` with `gzip` to create file `users.txt.gz` (**keep the original file**), add `users.txt.gz` to git repository
17. change to `cs390` and **compress** directory `hw1` with `tar`, using `gzip` compression ( `z` option) to create a tarball: **`hw1.tar.gz`** (**`tar zcf hw1.tar.gz hw1`**)
18. run: `tar tzf hw1.tar.gz > filelist.txt`
19. add `filelist.txt` to git
20. Run “`git status`” to make sure you have committed **everything** required for this assignment under `cs390`
21. Submit: under `cs390`: `git push`

**Note:** you are encouraged to check out your own `cs390` repository at a different system or/and different location to make sure everything required for this assignment has been pushed to “gitlab”

### Submission

- Print file `hw1.txt` with utility program `a2ps` as explained in class, and email the PDF file to [linh@uah.edu](mailto:linh@uah.edu) using mail command line on the due date.
- "upload" your work to `gitlab.com` before 11:59pm on the Due Date (using `git push`)

### Warning

\*\* I will run a script to "pull" all of your work to my system minute after the deadline. You will get ZERO if your work is not there!

\*\* Please keep the output file (`hw1.txt`) as CLEAN as possible. You can open another terminal to practice, or use “`man`” to learn the needed commands. Your print-out (`a2ps`) should not be longer than ONE page. **There will be 5 point penalty if `hw1.txt` is more than two pages**