

COP 3344 Introduction to Unix, Fall 2007

Assignment 2

Due 8 Oct 2007, 10 pm

Note: All questions require you to work on a computer. Each answer is worth 15 points. The submission procedure, including tar-ing and gzip, is worth 10 points.

1. Write a shell script called `mult`, which is executed as `./mult a b`, where `a` and `b` are integers. This script outputs the product of `a` and `b`.
2. Write a shell script called `mult2` which uses `read` to read in two numbers that are input, and outputs their product.
3. Write a shell script called `ndays` which is executed as `./ndays month year`, where `month` is a number that denotes a month and `year` is a year. The script should output the number of days in that month in that year. For example, `./ndays 2 2007` should output 28. You *should* use `cal`, and possibly other utilities that we have discussed in class.
4. Write a shell script called `ndays2` which is executed as `./ndays2 filename`. This script will output the number of days in whichever month the command is run into the file specified by `filename`. You should append to that file, so that previous contents are not over-written. The output format should be as follows: `Month Year Days`. For example, `./ndays2 file1` will output the following into the file `file1`: `Oct 2007 31`, if it is run before the homework deadline.
5. Write a shell script called `lines`, which is executed as `./lines filename first-line last-line`. This script will output the lines `first-line` through `last-line` in the file `filename`. For example, `./lines file1 5 10` will output lines 5 through 10 of the file `file1`. You may assume that `filename` contains at least `last-line` lines.
6. Write a shell script called `lslw`, which is executed as `./lslw op`, where `op` is either `-w` or `-l`. If `op` is `-l`, then the script should output the names of all the files in the current directory sorted in increasing order of the number of lines in the files. If `op` is `-w`, then it should output the names of all the files in the directory sorted in increasing order of the number of words in the files.

Submission instructions

1. All your files should be under a directory called `HW2`
2. Create a tar file containing `HW2` and all the files under it. This tar file should be called `HW2.tar`
3. Compress `HW2.tar` using `gzip`, to create the file `HW2.tar.gz`
4. Login in to blackboard and select the *Intro. to Unix* course
5. Click on *Student Tools* (alternatively, select *Dropbox* and skip step 7)
6. Click on *Digital Dropbox*
7. Click on *Add File*
8. In the field *Name*, write your name and the number of the assignment
9. In the field *File*, write the path to your file `HW2.tar.gz` (or browse it using the browse button)
10. Write comments in the *comments* field if you need to
11. Click *Submit* and then Click *OK* in the popup window
12. Click on *OK* in the receipt page
13. Click on *Send File*
14. On the *Select Field* list, select the file you need to send
15. Click on *Submit*
16. Click *OK* on the receipt page

Note: If you don't do all these steps, then your file will not be sent! We strongly suggest that you submit the assignment at least a day in advance, so that you will have time to fix any problems that arise. Also, please do not modify any of your original homework files, so that we will have a correct time stamp to look at, if there are problems with your submission.