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Recitation Section 103

## Task 1

### Command

### Goal

mkdir cs3308

Make a directory named cs3308 and move into that directory.

cd cs3308

cd ..

Rename your directory cs3308 to csci3308.

mv cs3308 csci3308

cd

Change to the root directory.

cp file file2

Make a copy of a file.

rm file2

Delete the copy of your file (Careful!)

mkdir tmp

Make a directory named tmp. Then delete that directory.

rm -r tmp

cat file

View the contents of a file.

less file

2nd way to view the contents of a file.

head file

View just the beginning of a file.

tail file

View just the end of a file.

grep -l "the"

List all files that contain the word the in the file.

find . -name books.txt

List full path to all files named books.txt

zip dir.zip csci3308

Zip the contents in your directory into a file named dir.zip

unzip dir.zip -d tmp

Unzip your zipped file dir.zip into a new directory named tmp.

tar -cf dir.tar csci3308

Tar the contents in your directory into a file named dir.tar

Untar your zipped file dir.tar into a new directory named tmp

mkdir -p tmp && tar -xf dir.tar -C tmp

touch file

Modify a file's last modified timestamp to now. This also creates a new file if it doesn't currently exist.

## Task 2

### Command

### Goal

`sort -t ':' -k1,1 /etc/passwd`

Sort the file based on the userid (first field)

`sort -n -t 't' -k3,3 /etc/passwd`

Sort the file based on the UID. Since it is a number, be sure to specify that it is a number so it sorts the numbers correctly.

Sort first based on GID, then on UID.

`sort -n -t ':' -k4,4 /etc/passwd | sort -n -t ':' -k3,3 /etc/passwd`

`grep -wn "Marx" /etc/passwd`

Show all the lines in the file with `Marx` in it.

`wc -l /etc/passwd`

Get the number of lines in the file (from a Unix command)

`wc -l /etc/passwd | > tmp`

Use your answer from the previous question and now redirect the output to a file named tmp

Now store your answer to the previous question in a separate file with an extension of .sh for example getUniqueGID.sh. Try to run your program. You should get command not found. Try to run ./getUniqueGID.sh You should get Permission denied. Change the permissions on the file to allow users to execute the file. Now, which method runs your program? And why doesn't the other one execute? And what is a second way to have changed the permissions? And do you know a third way?

`wc -l /etc/passwd | > getUniqueGID.sh`

`chmod +x getUniqueGID.sh`

*Change the permissions on the file.*

./getUniqueGID.sh now runs the program. You cannot just type getUniqueGID.sh because Linux thinks we are trying to execute a command. The ./ gives the path to the bash script so that the program can be run (if the file is in the current directory). Another way to change the permissions is in the absolute form. The command `chmod 751 getUniqueGID.sh` gives myself read, write, and execute permissions; gives users in my group read and execute permissions; and gives others only execute permission.