

Linux Commands

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1. The command `wc 'grep -l int *'` will show the line, word, and character count for *all* files in the current directory that contain the string `int`. On the other hand, `grep -l int * | wc` will first list all the files that contain the string `int`, and then feed this information into `wc`. This means that it will output the number of lines, words, and characters in the list of files containing `int`.

2. The command

```
ls -A | wc -w
```

Will first list all files except the implied `."` and `."`, and then count the words with `wc`.

3. Using

```
chmod u=rwx IveGotRights/  
chmod g=rx IveGotRights/  
chmod o=x IveGotRights/
```

We first modify the permissions for the current user (letter `'u'`), then the group (letter `'g'`), and finally others (letter `'o'`). `'r'`, `'w'`, and `'x'` denote `'read'`, `'write'`, and `'execute'`, respectively.

4. The command

```
tail -n 10 file | head -n 8 | grep 'C[sS][cC][0-9][0-9][0-9][[:space:]]'
```

Will first extract the desired lines, then match only the lines that contain a valid CSC course code.

5. The command

```
ls | grep '[:alpha:]*[0-9]\.[a-z][A-Z]$'
```

Will work, note that the character `$` matches the end of a line, otherwise we would match filenames with extra characters that are not part of the conditions.

6. With

```
cat file1.txt file2.txt file3.txt |  
awk '{print $5 " " $2 " " $1}' > myFile.txt
```

First, `cat` joins all files together, then `awk` takes care of rearranging and printing only certain columns. Finally, `> myFile.txt` writes the output to the appropriate file.