

The Linux Command Line Bootcamp

CHEATSHEET FOR COLT STEELE'S UDEMY COURSE
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- Getting Help

Display the manual page for a command
`man [command] ...`

The **man** pages are a built-in format of documentation. Each man page contains the synopsis of a command syntax. For instance, a simplified synopsis for the **sort** looks like
`sort [-n] [-h] [-k=number] [file] ...`

sort man page synopsis
[-n] the -n option is optional
-k=number the -k option expects an number
[file] ... more than one file can be provided

In summary, **sort** accepts optional argument -n, -h and -k, and -k expects a number, and we can provide more than one file to sort with.

Shortcuts for navigating man pages.

Q	quit man page
B/F	go back/forward a page
/PATTERN	search for a pattern
H	viewing all shortcuts

For certain shell builtins without a manual page entry, the **help** command can be used to generate a help page.

- Navigation

print name of current directory
`pwd`

list contents of a directory, default to current
`ls [dir]`

Options for ls
-a print files that begin with .
-l include permissions, file size and modification time
-h print human readable sizes

move into another directory

`cd [dir]`
Use `cd ..` to move up one level.
Refer to the root directory and user home directory with `/` and `~` respectively.

- Manipulating Files and Directories

create files
`touch [file] ...`

create new directories
`mkdir [dir] ...`
The **-p** option automatically makes parent directories as needed.

copy files and directories
Copy a single file or directory item1 to item2
`cp [item1] [item2]`
Copy multiple items into one directory
`cp [file] ... [dir]`

move and rename files
Move or rename the file or directory item1 to item2
`mv [item1] [item2]`
Move items from one directory to another
`mv [item].. [dir]`

delete files and directories
`rm [file] ...`

Option	Long	Description
-i	--interactive	prompt before removal
-r	--recursive	allow removing non-empty directories
-f	--force	do not prompt

Recipe: remove all files with confirmation
`rm -i [dir]/*`

edit files with nano
`nano file` open file with nano
`nano +line file` open file at a line
nano shortcuts
ctrl+O write out
ctrl+S save
ctrl+X exit nano
ctrl+W search forward
ctrl+\ replace
M+\\, M+// move to the first / last line
ctrl+A, ctrl+E move to the start / end of a line
.....
Edit `/etc/nanorc` for furthur configuration.

- File Manipulation Cont.

concatenate and print the contents of files
`cat file1 file2` outputs file1 first and immediately after prints the contents of file2. For long files, **less** displays the contents one page at a time.
`tac` prints files in reverse order (last line first). **rev** reverse lines characterwise.

Option	Long	Description
-n	--number	number output lines
-S	--squeeze-black	suppress repeated black lines
-A	--show-all	show non-printable characters such as tabs and line endings

print first / last parts of files
The **head** and **tail** command prints the first/last ten lines of the given file. The number of lines can be adjusted with the `-n` option, or simply `-[number]`.

The `-f` option of **tail** views file contents in real time. This is useful for monitoring log files.

print line, word, byte counts
`wc [file] ...` prints newline, word, byte counts for each file and a total line of all files
To limit the output, use

- w: print word counts
- l: print line counts
- m: print character counts
- c: print byte counts

Recipe: count total lines of `.js` files

`wc -l *.js`

sort lines of fines
By default, **sort file** print each line from the specified file, sorted ini alphabetical order. It can also merge multiple files into one sorted whole via `sort file1 file2 ...`.

Option	Long	Description
-n	--numeric-sort	compare based on string numerical value
-h	--human-numeric-sort	compare based on human readable numbers (e.g., 2k 1G)
-k	--key=KEYDEF	sort via a key
-r	--reverse	sort in reverse order
-u	--unique	sort unique values only

Recipe: find the top 10 biggest files inside a directory

`ls -lh [dir] | sort -rhk5 | head -10`