

# Notes7

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## cat

### \* usage

- Used for displaying content of a file

### \* formula

- `cat+option+file to display`

### \* examples

- display content of a file
  - `cat todo.lst`
- display content of file with line numbers
  - `cat -n todo.md`
- display content of file using absolute path
  - `cat ~/Documents/todo.lst`

## tac

### \* usage

- Used for displaying content of a file in reverse

### \* formula

- `tac+option+file to display`

### \* examples

- display content of a file in reverse
  - `tac todo.lst`
- display content of file with line numbers in reverse
  - `tac -n todo.md`
- display content of file using absolute path in reverse
  - `tac ~/Documents/todo.lst`

## head

### \* usage

- displays top lines of a file

### \* formula

- `head+option+file`

## \* examples

- display first ten lines of a file
  - `head ~/Documents/Book/dracula.txt`
- display first five lines of a file
  - `head -5 ~/Documents/Book/dracula.txt`
- display first line of multiple files using wildcards
  - `head -n 1 *.csv *.py`

## tail

### \* usage

- displays bottom lines of a file

### \* formula

- `tail+option+file`

## \* examples

- display last ten lines of a file
  - `tail ~/Documents/Book/dracula.txt`
- display last five lines of a file
  - `tail -5 ~/Documents/Book/dracula.txt`
- display last line of multiple files using wildcards
  - `tail -n 1 *.csv *.py`

## cut

### \* usage

- extracts a specific section of each line from a file then displays it.

### \* formula

- `cut+option+file`

## \* examples

- display list of all users in your system
  - `cut -d ':' -f1 /etc/passwd`
- display list of all users in system with their login shell
  - `cut -d ':' -f1,7 /etc/passwd`
- cuts a range of bytes per line
  - `cut -b 1-5 usernames.txt`

## paste

### \* usage

- Joins files horizontally in columns

#### \* formula

- `paste+option+file`

#### \* examples

- merges two files
  - `paste users.lst ip_address.lst`
- merge two files using a delimiter
  - `paste -d ":" users.lst ip_address.lst`

## sort

#### \* usage

- sorts files in a certain order

#### \* formula

- `sort+option+file`

#### \* examples

- sort a file
  - `sort users.lst`
- sort a file in reverse order
  - `sort -r users.txt`
- sort by column number
  - `sort -k 2 users.txt`

## WC

#### \* usage

- prints number of lines/characters/bytes in a file

#### \* formula

- `wc+option+file`

#### \* examples

- display number of characters in a file
  - `wc -m users.txt`
- display number of lines in file
  - `wc -l users.txt`
- display number of words
  - `wc -w users.txt`

## tr

### \* usage

- translating or deleting characters from standard output

### \* formula

- Standard output | `tr+option+set+set`

### \* examples

- Translate one character to another
  - `cat file.txt | tr '.' ','`
- Translate white spaces into tabs
  - `cat program.py | tr ":space:" '\t'`
- Translate tab to space
  - `cat file.py | tr -s ":space:" ' '`

## diff

### \* usage

- compares files and shows difference between them

### \* formula

- `diff+option+file+file2`

### \* examples

- display difference between two files
  - `diff cars.csv cars-backup.csv`
- display difference between two files in column format
  - `diff -y cars.csv cars-backup.csv`

## grep

### \* usage

- searches for text in given file

### \* formula

- `grep+option+search criteria+file`

### \* examples

- search for any line that has dracula
  - `grep 'dracula' ~/Documents/dracula.txt`
- search for any line that has dracula regardless of case

- `grep -i 'dracula' ~/Documents/dracula.txt`
- display how many lines contain matched string
  - `grep -c 'dracula' ~/Documents/dracula.txt`