

# Notes 5

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## cat

### Definition

The cat command is used for displaying the content of a file.

### Usage

`cat + option + file(s)` to display

### Examples

- display the content of a file located in the pwd
  - `cat todo.lst`
- display the content of a file with line numbers
  - `cat -n ~/Documents/todo.md`
- display the content of a file showing non-printing characters
  - `cat -v ~/Documents/todo.md`

## tac

### Definition

The tac command is used for displaying the content of a file in reverse order.

### Usage

`tac + option + file(s)` to display

### Examples

- display the content of a file located in the pwd
  - `tac todo.md`
- display the content of a file using absolute path
  - `tac ~/Documents/todo.md`

## head

### Definition

The head command displays the top N number of lines of a given file.

### Usage

`head + option + file(s)`

### Examples

- display the first 10 lines of a file
  - `head ~/Documents/Book/dracula.txt`
- display the first 5 lines of a file
  - `head -5 ~/Documents/Book/dracula.txt`
- display the first line of multiple files using wildcards
  - `head -n 1 *.csv *.py`

## tail

### Definition

The tail command displays the last N number of lines of a given file.

### Usage

`tail + option + file`

### Examples

- display the last 10 lines of a file
  - `tail ~/Documents/Book/dracula.txt`
- display the last 5 lines of a file
  - `tail -5 ~/Documents/Book/dracula.txt`
- display a given number of lines of the output of a given command
  - `ls -l ~/cis106/ | tail -n 2`

## cut

### Definition

The cut command is used to extract a specific section of each line of a file and display it to the screen.

### Usage

`cut + option + file(s)`

### Examples

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

## sort

### Definition

The sort command is used for sorting files.

## Usage

`sort + option + file`

## Examples

- sort a file
  - `sort users.lst`
- sort by column number
  - `sort -k 2 users.txt`
- sort and remove duplicate entries
  - `sort -u users.lst`

## WC

### Definition

The `wc` command is used for printing the number of lines, characters, and bytes in a file.

### Usage

`wc + option + file(s)`

### Examples

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

## diff

### Definition

The `diff` command compares files and displays the differences between them

### Usage

`diff + option + file1 + file2`

### Examples

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

## grep

## Definition

The grep command is used to search text in a given file

## Usage

```
grep + option + search criteria + file(s)
```

## Examples

- search any line that contains the word "dracula" in the given file
  - `grep 'dracula' ~/Documents/dracula.txt`
- search any line that contains the word "dracula" regardless of the case
  - `grep -i 'dracula' ~/Documents/dracula.txt`
- search any line that contains the word "dracula" regardless of case and with number line
  - `grep -in 'dracula' ~/Documents/dracula.txt`