

# Notes 8

---

## awk

### Description

- The command is used for processing and displaying text.

### Usage

- `awk + options + file + file to save (optional)`

### Examples

- Print the first column of every line of a file:
  - `awk '{print $1}' ~/Documents/Csv/cars.csv`
- Print the first and last field of the `/etc/passwd`:
  - `awk -F: '{print $1," = ",$NF}' /etc/passwd`
- Print the first and 3 field with line numbers:
  - `awk -F: '{print NR,$1,$3}' /etc/passwd`

## sed

### Description

- The command is used to perform operations on files and standard output. We can find and replace, insert, and deletion. By using sed we can edit files without opening them.

### Usage

- `sed options + sed script + file`

### Examples

- Replacing a string in a given file (replace pizza for rice):
  - `sed 's/pizza/rice/' shopping-list.lst`
- To delete line from range x to y:
  - `sed '2,8d' shopping-list.lst`
- To delete from a given number to last line:
  - `sed '12,$d' shopping-list.lst`

## less

### Description

- Pager programs are used for reading files 1 page at a time. The 3 most common pager programs are "more", "less", and "most".

### Usage

- `pager program + file to read`

## Examples

- Displays the pages of the txt file dracula:
  - `less ~/Documents/Books/dracula.txt`
- Displays the pages of the txt file bible:
  - `more ~/Documents/Books/bible.txt`

>

## Description

- In Linux, we can redirect the input and output of commands to and from files.

## Usage

- `command output + > + file`

## Examples

- Save the output of a command to a file:
  - `ls -lA ~ > all-files-in-home.txt`
- Save the error and success to the same file:
  - `ls -lA downloads/ Pictures &> alloutput.txt`
- Save the error to a file and success to another:
  - `ls -lA downloads/ Pictures > success.txt 2> error.txt`

>>

## Description

- Append means to add more to a file instead of overwriting its content. If a file has any data prior executing the command, that data will be overwritten. To keep the old data we use >>.

## Usage

- `command + >> + file being appended`

## Examples

- To keep old data and add to existing file:
  - `ls -la >> allmyfiles.lst`

## | (Pipe)

## Description

- The pipe allows to redirect the standard output of a command to the standard input of another.

## Usage

- `command_1 + | + command_2 + | + command_3 + | + .... + | + command_N`

## Examples

- Use grep to look for a string in particular man page:
  - `man ls | grep "human-readable"`
- Display only the options of any command from its man page:
  - `man ls | grep "[[:space:]]*[[:punct:]]"`
- Display only the 2nd line in a file:
  - `head -2 file.lst | tail -1`