

# Command Line: Essentials

## Basic Shell Commands

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- ``pwd``: print the absolute path to the current directory
- ``ls <target>``: lists the files in the current directory, or in `<target>` if it is supplied
  - `'-l'` option for longform
  - `'-a'` option for all
  - `'-R'` option for recursive
- ``cd <dir>``: change directory you are in to `<dir>`
- ``mv <source> <dest>``: move a directory/file at `<source>` to `<dest>`; this is also used to rename a file
- ``cp <source> <dest>``: copy a directory/file at `<source>` to `<dest>`
  - `'-r'` option (*recursive*) for all sub-directories
- ``rm <target>``: delete a directory/file called `<target>`
  - `'-r'` option (*recursive*) for all sub-directories
  - `'-i'` option (*interactive*) to prompt for confirmation (helps to prevent accidental deletions)
- ``sudo <command>``: execute `<command>` with temporary elevated privileges; be careful with this, and us
- ``mkdir <dir>``: create an empty directory called `<dir>`
- ``touch <file>``: create a new empty file called `<file>`
- ``less <file>``: page through a file/file-like object
- ``nano <file>``: edit a file inside the terminal
- ``man <command>``: bring up the manual page for `<command>` in the less pager
- ``whatis <command>``: print a brief description for `<command>`
- ``help <built-in>``: print some useful information for `<built-in>`, which is a command defined primarily by the choice if there are no man pages for a command, for example in the case of ``alias``.
- ``apropos <criteria>``: search the man page descriptions of all commands for `<criteria>`; use this to find the their function.

## Bash Hotkeys

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- ``Ctrl + C``: Kill whatever command is currently running
- ``Ctrl + D``: Exit the current shell (bash itself, or others), or send an end-of-file message to a command.
- ``Ctrl + Z``: Suspends whatever command is running; ``fg``, which stands for foreground, restores it; ``bg`` background.
- ``Tab``: Auto-complete file and folder names, or give possible options for completion
- ``Ctrl + Up`` or ``Down`` arrow: Go back or forward, respectively, through your command history
- ``Ctrl + R``: Search through your history of commands
- ``Ctrl + A``: Jump to beginning of line
- ``Ctrl + E``: Jump to end of line
- ``Ctrl + Right`` or ``Left`` arrow: Jump to the next word in whichever direction on the command line; provide holding down left or right.

## Less Paging Hotkeys

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- arrow keys: move up, down, and even to the right and left to see more.
- ``q``: Quit the pager
- ``f`` or ``space``: Go forward one page
- ``b``: go backward one page
- ``h``: bring up the help page
- ``/<characters>``: search for `<characters>` inside the pager; press `'n'` for next occurrence; press `'p'` for prev