

# Linux cheat sheet

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## 1 Bash shortcuts

**CTRL+SHIFT+T** ..... open a terminal in a new tab  
**CTRL+SHIFT+PgUp** ..... scroll up  
**CTRL+SHIFT+PgDown** ..... scroll down  
**CTRL+R** ..... search the history backwards  
**CTRL+A** ..... go to the start of the command line  
**CTRL+E** ..... go to the end of the command line  
**CTRL+U** ..... delete from cursor to the start of the command line  
**CTRL+K** ..... delete from cursor to the end of the command line  
**CTRL+W** ..... delete the word before the cursor  
**CTRL+Y** ..... paste text that was cut after the cursor  
**CTRL+Z** ..... suspend the current foreground process running  
**CTRL+C** ..... kill the current foreground process running  
**CTRL+L** ..... clear the screen  
**CTRL+D** ..... close the bash shell

## 2 Bash commands

### 2.1 Basic commands

**date** ..... print or set the system date and time  
**pwd** ..... print name of current/working directory  
**cd** ..... change the current directory  
**echo** ..... display a line of text  
**man** ..... format and display the on-line manual pages  
**history** ..... display previous commands  
**env** ..... display environment variables  
**alias** ..... define or display aliases  
**exit** ..... cause the shell to exit

### 2.2 File management

**ls** ..... list directory contents  
**mkdir** ..... make directories  
**touch** ..... create file or change file timestamps  
**cp** ..... copy files and directories  
**mv** ..... move or rename files  
**rm** ..... remove files or directories  
**file** ..... determine file type  
**ln** ..... make links between files  
**find** ..... search for files in a directory hierarchy  
**du** ..... estimate file space usage  
**tar** ..... store, list or extract files in an archive  
**gzip** ..... compress or expand files

### 2.3 File operations

**cat** ..... concatenate files and print on the standard output  
**less** ..... display output one screen at a time  
**head** ..... output the first part of files  
**tail** ..... output the last part of files  
**grep** ..... print lines matching a pattern  
**diff** ..... compare files line by line  
**wc** ..... print newline, word, and byte counts for each file  
**sort** ..... sort lines of text files  
**uniq** ..... report or omit repeated lines  
**cut** ..... remove sections from each line of files

## 2.4 User management

**sudo** ..... execute a command as another user  
**chmod** ..... change access permissions  
**chown** ..... change file owner and group  
**umask** ..... set default permissions  
**useradd** ..... create a new user or update default new user information  
**userdel** ..... delete a user account and related files  
**passwd** ..... update user's authentication

## 2.5 Process management

**w** ..... show who is logged on and what they are doing  
**ps** ..... report a snapshot of the current processes  
**top** ..... list processes running on the system  
**kill** ..... terminate a process  
**time** ..... time a simple command or give resource usage  
**jobs** ..... list active jobs  
**bg** ..... run jobs in the background  
**fg** ..... run jobs in the foreground  
**sleep** ..... delay for a specified amount of time  
**nohup** ..... run a command immune to hangups  
**at** ..... execute commands at a later time  
**crontab** ..... schedule periodic background work  
**df** ..... report file system disk space usage  
**halt** ..... reboot or stop the system

## 2.6 Network management

**ping** ..... send an ICMP request to network hosts  
**ssh** ..... open SSH client  
**scp** ..... secure remote file copy  
**ftp** ..... open File Transfer Protocol client  
**whois** ..... query a whois or nickname database  
**ifconfig** ..... configure a network interface  
**netstat** ..... print network informations  
**traceroute** ..... print the route packets trace to network host

## 3 Programming

**gcc** ..... C and C++ compiler  
**gcc -Wall in.c -o out** ..... compile (a C file) and create an executable  
**javac** ..... compile (a Java file) and create a .class file  
**java** ..... execute a .class file  
**make** ..... execute a Makefile

## 4 VIM commands

### 4.1 Normal mode

**0** ..... move cursor to the beginning of current line  
**\$** ..... move cursor to the end of current line  
**w** ..... move forward by one word  
**x** ..... delete characters after the cursor  
**dd** ..... delete the current line  
**dw** ..... delete word from cursor on  
**yy** ..... copy the current line  
**p** ..... paste the copied text before the cursor  
**u** ..... undo your last action  
**CTRL+R** ..... redo your last action  
**/** ..... find a word

### 4.2 Insertion mode

**i** ..... insert text before the current cursor position  
**a** ..... append text following current cursor position  
**A** ..... append text to the end of current line  
**o** ..... begin a new line below the cursor and insert text  
**O** ..... begin a new line above the cursor and insert text  
**Echap** ..... return to normal mode

### 4.3 Command mode

**:w** ..... write file  
**:q** ..... quit the editor  
**:wq** ..... write file and quit the editor  
**ZZ** ..... write file and quit the editor