

# Bash Cheatsheet

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## 1 Files & Directories

<code>cat a</code>	print a
<code>cd dir/</code>	go to dir/
<code>cd ..</code>	go to parent dir
<code>pwd</code>	print current dir
<code>cp a b</code>	copy a to b
<code>cp a dir/</code>	copy a into dir/
<code>cp -r sub/ dir/</code>	copy sub/ into dir/
<code>mv a b</code>	rename a to b
<code>mv a dir/</code>	move a into dir/
<code>mv sub/ dir/</code>	move sub/ into dir/
<code>rm a</code>	remove a
<code>rm -r dir/</code>	remove dir/
<code>ls</code>	list files
<code>ls -a</code>	list files, incl. hidden
<code>ls -l</code>	list files, show details
<code>ls dir/</code>	list files under dir/
<code>mkdir dir/</code>	create dir/
<code>mkdir -p dir/sub/</code>	create dir/sub/ directly

## 2 Utilities

<code>head -n 5 a</code>	print first 5 lines of a
<code>grep pattern files</code>	grep for pattern in files
<code>grep -i</code>	ignore case
<code>grep -v</code>	invert match
<code>grep -o</code>	only show matched part
<code>grep -E</code>	extended regex
<code>sort file</code>	sort lines in file
<code>sort -f</code>	ignore case
<code>sort -n</code>	numerical order
<code>sort -r</code>	reverse
<code>uniq</code>	remove duplicate lines
<code>comm -12 a b</code>	print lines in both a and b
<code>diff a b</code>	difference between a and b

## 3 Ctrl+

<code>W</code>	delete one word to the left
<code>U</code>	delete everything to the left
<code>K</code>	delete everything to the right
<code>7</code>	undo
<code>C</code>	abort
<code>R</code>	search history
<code>L</code>	clear screen

## 4 Regex (ERE)

<code>.</code>	any character
<code>\.</code>	literal dot
<code>[aeiou]</code>	any vowel
<code>[^aeiou]</code>	anything but a vowel
<code>[0-9]</code>	any digit
<code>[A-Za-z]</code>	any letter
<code>^</code>	beginning of line
<code>\$</code>	end of line
<code>A?</code>	0 or 1 A
<code>A+</code>	$\geq 1$ A's
<code>A*</code>	$\geq 0$ A's
<code>A{,6}</code>	6 A's
<code>A{,6}</code>	0-6 A's
<code>A{4,6}</code>	4-6 A's
<code>(ls cd rm)</code>	one of ls, cd, and rm
<code>\w</code>	letters, digits, _
<code>\s</code>	whitespace
<code>\b</code>	boundary of word
<code>\W \S \B</code>	invert <code>\w \s \b</code>

## 5 Scripting

if [[ <u>TEST</u> ]]; then BODY; fi					
-eq	-ne	-le	-lt	-ge	-gt
=	≠	≤	<	≥	>
-z \$a	empty string				
-n \$a	not empty string				
\$a = \$b	strings are the same				
\$a != \$b	strings are different				
-e \$file	file exists				
-f \$file	is regular file				
-d \$dir	is directory				
if (( <u>TEST</u> )); then BODY; fi					
%	modulo				
**	exponentiation				
== !=	=≠				
< > <= >=	<>≤≥				
&&	logical AND/OR				
for VAR in <u>LIST</u> ; do BODY; done					
{01..10}	01, 02, ..., 10				
{2..10..2}	2, 4, ..., 10				
\$()	output of command				
If necessary, IFS=\$'\n'					