

# Regex Cheatsheet

Anchors	Description	Example	Matches
^	Matches beginning of line	'^This'	This dog has a tail
\$	Matches end of line	'tail\$'	This dog has a tail

Character Classes and Sets			
[123,%abc]	Any one character in the []	[0-9] [a-z]	Range
[^abc]	Not any one character in the []	[-^abc]	Hyphen, caret or abc
[:alpha:]	Alphabetical character a-z A-Z	[:alnum:]	a-z, A-Z, or 0-9
[:blank:]	Space or tab	[:digit:]	0-9
[:lower:]	Lowercase a-z	[:upper:]	Uppercase A-Z
[:print:]	Printable character	[:punct:]	Any punctuation
[:space:]	Any space - Tab, NL, FF, VT, CR	[:xdigit:]	Hexidecimal digits

Basic Regular Expressions (sed, grep)			
Pattern	Match	Pattern	Match
.	1 character	\{2,4\}	2-4 of previous character
*	0 or more of previous character	\(ab\)	Match group of chars ( <b>ab</b> )
\{0,1\}	0 or 1 of previous character	\(ab\)\{2\}	Multiple groups
\{1,\}	1 or more of previous character		
\{2\}	2 of previous character		

Extended Regular Expressions (sed -r, egrep, awk, bash [[ =~ ]])			
Pattern	Match	Pattern	Match
.	1 character	{2,4}	2-4 of previous character
*	0 or more of previous character	(ab)	Match group of chars ( <b>ab</b> )
?	0 or 1 of previous character	(ab){2}	Multiple groups
+	1 or more of previous character	(cat dog)	Match cat <b>or</b> dog
{2}	2 of previous character		

BASH_REMATCH and back references		
Mechanism	Description	Match
[[ photo.jpg =~ ^(.*)\.[a-Z]*\$ ]]	Entire string is saved in \${BASH_REMATCH}	photo.jpg
	1st match (.*?) is saved in \${BASH_REMATCH[1]}	photo
	2nd match ([a-Z]*) is saved in \${BASH_REMATCH[2]}	jpg
egrep '^(.?).(?.)?\2\1\$'	Matches in () are saved for recall in back references. The first match is saved in \1, second in \2 ... (.?).(?.)?\2\1 = (first)(second)third(second)(first)	radar civic kayak