Regular Expressions Cheat Sheet by DaveChild [http://www.cheatography.com/davechild/]

Regular Expressions Anchors

^	Start of string, or start of line in multi-line pattern
\A	Start of string
$	End of string, or end of line in multi-line pattern
\Z	End of string
\b	Word boundary
\B	Not word boundary
\<	Start of word
\>	End of word

Regular Expressions Character Classes

\c	Control character
\s	White space
\S	Not white space
\d	Digit
\D	Not digit
\w	Word
\W	Not word
\x	Hexadecimal digit
\O	Octal digit

Regular Expressions POSIX

[:upper:]	Upper case letters
[:lower:]	Lower case letters
[:alpha:]	All letters
[:alnum:]	Digits and letters
[:digit:]	Digits
[:xdigit:]	Hexadecimal digits
[:punct:]	Punctuation
[:blank:]	Space and tab
[:space:]	Blank characters
[:cntrl:]	Control characters
[:graph:]	Printed characters
[:print:]	Printed characters and spaces
[:word:]	Digits, letters and underscore

Regular Expressions Assertions

?=	Lookahead assertion
?!	Negative lookahead

Regular Expressions Quantifiers

*	0 or more
+	1 or more
?	0 or 1
{3}	Exactly 3
{3,}	3 or more
{3,5}	3, 4 or 5

Add a ? to a quantifier to make it ungreedy.

Regular Expressions Escape Sequences

\	Escape following character
\Q	Begin literal sequence
\E	End literal sequence

"Escaping" is a way of treating cters which have a special meaning in regular exp s literally, rather than as special characters.

Regular Expression Common Metacharacters

^	[	.
$	{	*
(	\	+
)	|	?
<	>	

The escape character is usually the backslash - \.

Regular Expressions Special Characters

\n	New line
\r	Carriage return
\t	Tab
\v	Vertical tab
\f	Form feed
\xxx	Octal character xxx
\xhh	Hex character hh

Regular Expressions Groups and Ranges

.	Any character except new line (\n)
(a|b)	a or b
(...)	Group
(?:...)	Passive (non-capturing) group
[abc]	Range (a or b or c)
[^abc]	Not a or b or c
[a-q]	Letter from a to q
[A-Q]	Upper case letter from A to Q
[0-7]	Digit from 0 to 7
\n	nth group/subpattern

Ranges are inclusive.

Regular Expressions Pattern Modifiers

g	Global match
i	Case-insensitive
m	Multiple lines
s	Treat string as single line
x	Allow comments and white space in pattern
e	Evaluate replacement
U	Ungreedy pattern

Regular Expressions String Replacement

$n	nth non-passive group
$2	"xyz" in /^(abc(xyz))$/
$1	"xyz" in /^(?:abc)(xyz)$/
$`	Before matched string
$'	After matched string
$+	Last matched string
$&	Entire matched string

Some regex implementations use \ instead of $.

?<=	Lookbehind assertion
?!= or ?<!	Negative lookbehind
?>	Once-only Subexpression
?()	Condition [if then]
?()|	Condition [if then else]
?#	Comment

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[/davechild/] DaveChild [/davechild/]
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Comments

[/doug/] Doug [/doug/] , 10:02 28 Nov 11 [/davechild/cheat-sheets/regular-expressions/#comment1]

Your regex cheatsheet says ^ is "Start of string" and $ is "End of string"

[/davechild/] DaveChild [/davechild/] , 10:02 28 Nov 11 [/davechild/cheat-sheets/regular-expressions/#comment1]

Hi Doug. I've clarified that section. Thanks for the heads up :)

[//] [//] , 10:02 28 Nov 11 [/davechild/cheat-sheets/regular-expressions/#comment1]

It looks unchanged to me. ^ still says it's "start of string" and $ still says "end of string". They should be reversed, right?

[//] [//] , 10:02 28 Nov 11 [/davechild/cheat-sheets/regular-expressions/#comment1]

Actually, I'm sorry, you're right! I was pretty confused there, sorry if I've confused anyone else.

[/davechild/] DaveChild [/davechild/] , 10:02 28 Nov 11 [/davechild/cheat-sheets/regular-expressions/#comment1]

No worries Keith - easy mistake to make!

Tom Hunter, 10:02 28 Nov 11 [/davechild/cheat-sheets/regular-expressions/#comment6]

Can you tag this as 'regex'? Searching for regex on cheatography yields two other results, but not this one.

[/doug/] Doug [/doug/] , 22:52 12 Apr 12 [/davechild/cheat-sheets/regular-expressions/#comment7]

Would you add \Q... \E to the cheatsheet?

Jorge, 12:16 4 May 12 [/davechild/cheat-sheets/regular-expressions/#comment8]

It would be nice to see the list of white space characters

Jeff, 15:44 9 May 12 [/davechild/cheat-sheets/regular-expressions/#comment9]

Great resource! Thanks for putting this together and sharing.

david, 08:58 20 May 12 [/davechild/cheat-sheets/regular-expressions/#comment10]

What language/flavor is this? Or I should also ask, if non is specified, what tends to be the default? I'm specifically looking for php or javascript, and I know they're all mostly the same, but not 100%.

Thanks!

Chris, 09:19 7 Jun 12 [/davechild/cheat-sheets/regular-expressions/#comment11]

David, Regex is programming language neutral, as in, it doesn't matter if you are programming regex expressions in javascript, c#, c++, PHP, or even command line *nix, makes no difference. Only thing you have to watch out for is some programming languages may require different various regex characters to be escaped differently (so the programming language doesn't try to interpret it). Usually a backslash. For instance \\ means ONE backslash in many languages.

Andy Grosland, 09:45 28 Jun 12 [/davechild/cheat-sheets/regular-expressions/#comment12]

Very handy, thank you!

Don't forget Perl ;-)

littleguy, 15:23 6 Aug 12 [/davechild/cheat-sheets/regular-expressions/#comment13]

Great and useful stuff!

Chilean, 14:03 23 Aug 12 [/davechild/cheat-sheets/regular-expressions/#comment14]

Hi, I'm trying to learn REGEX, and I need to find this: "Page 1 Of 60", ... "Page 50 of 60", But I can't find it using reg. expressions! :(. How would you do that? Thank you!

kris w, 08:50 13 Sep 12 [/davechild/cheat-sheets/regular-expressions/#comment15]

Is there a cheat sheet to the cheat sheet? Is this in plain english anywhere?..."negative lookahead"..huh?

Travis, 13:07 4 Oct 12 [/davechild/cheat-sheets/regular-expressions/#comment16]

@david, this cheat sheet is pretty neutral. The most common flavor is Perl Compatible Regular Expressions (PCRE). Javascript's engine is close to that and PHP also has Perl Compatible functions for Regex; they use the PREG prefix. Most everything on this sheet should be supported by PHP's engine (I think POSIX character classes are not). Javascript's engine isn't as featureful. Some advanced features aren't supported, but all the basics are there. If you need a multiline match and you can't use the flag, you can use an inverted class range such as [\s\S] in place of the . (dot) to match anything including newlines.

@Chilean+kris w, You need to find a resource for learning Regular Expressions. This cheat sheet is for reference, not learning. Check out http://www.regular-expressions.info/

fsnow55, 16:17 22 Oct 12 [/davechild/cheat-sheets/regular-expressions/#comment17]

I was confused by the first comment (which was wrong, but you compounded the error with an acknowlegement). ^ is the start of string or line. Period.

Also, your cheat sheet is better organized than the more comprehensive http://www.regular-expressions.info/ since its more succinct. The latter has a 1-page summary but its too verbose.

ty, 12:50 22 Nov 12 [/davechild/cheat-sheets/regular-expressions/#comment18]

Nice sheet.

Rob, 11:47 24 Jan 13 [/davechild/cheat-sheets/regular-expressions/#comment19]

Is there a reason why the ']' character is not listed under metacharacters? Doesn't that character require to be escaped if searched for?

Bill, 11:48 24 Jan 13 [/davechild/cheat-sheets/regular-expressions/#comment20]

Hey Dave. Thanks for the cheat sheet. You may want to change "Not a or b or c" when you describe the [^abc} negated character class, because in English, the negation is ambiguous. It could mean "neither a nor be nor c." Or the "a" could be the only negated disjunct. You could mean (~a v (b v c)).

Edir, 09:17 15 Feb 13 [/davechild/cheat-sheets/regular-expressions/#comment21]

Could be added to the list.

Case Conversion
\l Make next character lowercase
\u Make next character uppercase
\L Make entire string (up to \E) lowercase
\U Make entire string (up to \E) uppercase
\u\L Capitalize first char, lowercase rest (sentence)

Gabe, 17:16 26 Mar 13 [/davechild/cheat-sheets/regular-expressions/#comment22]

I have a database using regex. I am trying to use ^file to get all files with name file_,file ,file_name_date. but it is not working any help

[/david-baird/] david.baird [/david-baird/] , 18:59 15 Jul 13 [/davechild/cheat-sheets/regular-expressions/#comment23]

Is \x supported anywhere? I can't find examples of it in use searching the web. It also does not work in a script on my Macintosh, OSX 10.7.5 using the OS's perl installation.

Drew White, 15:10 13 Feb 14 [/davechild/cheat-sheets/regular-expressions/#comment24]

I'm trying to come up with a regex string to filter results to a directory that includes a-zA-Z but that also includes an underscore ('_'). Do you know of a way to do this?

David, 15:14 13 Feb 14 [/davechild/cheat-sheets/regular-expressions/#comment25]

Is \x supported anywhere? I can't seem to find where it is supported. E.g., perl on MacOS 10.7.5. Searching for on-line examples or help also fails, in that no one knows about it.

David, 15:14 13 Feb 14 [/davechild/cheat-sheets/regular-expressions/#comment26]

Is \x (Regular Expressions Character Classes) supported anywhere? Is this a new class that has just been added, because I am unable to use it in working with IPV6 addresses. Searching for a string containing something like 2001::1a79 with a RegEx 2001::\x{1,4} will fail, but if I use 2001::[a-fA-F0-9]{1,4} will work.

David, 15:14 13 Feb 14 [/davechild/cheat-sheets/regular-expressions/#comment27]

\x is a term in "Regular Expressions Character Classes" for an hexadecimal digit. How does this compare to the \xhh "Special Characters"? Is it supported today?

Benoit, 08:54 14 Feb 14 [/davechild/cheat-sheets/regular-expressions/#comment28]

It would be great to increase in some ways the --> : <---- in the
"(?:...) Passive (non-capturing) group" description. Just after the "?", it is praticaly not visible. Thanks!

Simon, 17:33 17 Feb 14 [/davechild/cheat-sheets/regular-expressions/#comment29]

This is a great cheat-sheet. Two minor niggles:
* Would be great to hint on the characters hidden in the character classes (\s = [\t\n\r\f], \d = [0-9], \w = [a-zA-Z_0-9])
* I think possibly there's a mistake in the section "Special Characters" - \xxx is probably not the octal character xxx. See "Character Classes": it should be \Oxxx (and by the way: why are \O and \x duplicated in "Special Characters" and "Character Classes"...)
And I support Edir's request for a section "Case Conversion".
But again: great sheet, thanks!

Sahana A V, 17:48 17 Feb 14 [/davechild/cheat-sheets/regular-expressions/#comment30]

Thank you for the Regex cheat sheet :-)

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A quick reference guide for regular expressions (regex), including symbols, ranges, grouping, assertions and some sample patterns to get you started.

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