Regular Expression Quick Reference v1.2

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| Literal Characters | | |
|--------------------|---|--|
| \f | Form feed | |
| \n | Newline | |
| \r | Carriage return | |
| \t | Tab | |
| \v | Vertical tab | |
| \a | Alarm (beep) | |
| \e | Escape | |
| \xHH | The ASCII character specified by the two digit hexadecimal code. For octal use \000 except JS | |
| \x{нннн} | PHP: ASCII character represented by a four digit hexadecimal code. Javascript uses \uHHHH | |
| \cX | The control character ^X . For example, \ci is equivalent to \t and \ci is equivalent to \n | |

| Character Classes | | | | | | | |
|-------------------|--|----------------|----------------|---------------|---------------------|------------|-------|
| [] | Any one cha | aracter betwe | en the bracke | ts. | | | |
| [^] | Any one cha | aracter not be | etween the bra | ickets. | | | |
| | Any charact | ter except ne | wline. Equival | ent to [^\n] | | | |
| \w | Any word ch | naracter. Equ | ivalent to [a- | zA-Z0-9_] a | nd [[:alnur | n:]_] | |
| \W | Any non-wo | rd character. | Equivalent to | [^a-zA-Z0- | 9_] and [^[| :alnum:]_] | |
| \s | Any whitesp | ace characte | r. Equivalent | to [\t\n\r\ | \f\v] and [[| :space:]] | |
| \s | Any non-whitespace. Equivalent to [$\t \in \t = $ | | | | | | |
| \d | Any digit. E | quivalent to [| 0-9] and [[| :digit:]] | | | |
| \D | Any charact | ter other than | a digit. Equiv | alent to [^0- | 9] and [^[:d | digit:]] | |
| [\b] | A literal bac | kspace (spe | cial case) | | | | |
| [[:class:]] | alnum | alpha | ascii | blank | cntrl | digit | graph |
| | lower | print | punct | space | upper | xdigit | |

| Replacement | |
|-------------|--|
| \ | Turn off the special meaning of the following character. |
| \n | Restore the text matched by the nth pattern previously saved by \(and \). n is a number from 1 to 9, with 1 starting on the left. |
| & | Reuse the text matched by the search pattern as part of the replacement pattern. |
| ~ | Reuse the previous replacement pattern in the current replacement pattern. Must be the only character in the replacement pattern. (ex and vi). |
| & | Reuse the previous replacement pattern in the current replacement pattern. Must be the only character in the replacement pattern. (ed). |
| \u | Convert first character of replacement pattern to uppercase. |
| \U | Convert entire replacement pattern to uppercase. |
| \1 | Convert first character of replacement pattern to lowercase. |
| \L | Convert entire replacement pattern to lowercase. |

| Repetition | |
|------------|---|
| {n,m} | Match the previous item at least n times but no more than m times. |
| {n,} | Match the previous item n or more times. |
| {n} | Match exactly n occurrences of the previous item. |
| ? | Match zero or one occurrences of the previous item. Equivalent to {0,1} |
| + | Match one or more occurrences of the previous item. Equivalent to {1,} |
| * | Match zero or more occurrences of the previous item. Equivalent to {0,} |
| {}? | Non-greedy match - will not include the following group/match characters. |
| ?? | Non-greedy match - will not include the following group/match characters. |
| +? | Non-greedy match - will not include the following group/match characters. |
| *; | Non-greedy match. E.g. ^(.*?)\s*\$ the grouped expression will not include trailing spaces. |

| Options | |
|---------|---|
| g | Perform a global match. That is, find all matches rather than stopping after the first match. |
| i | Do case-insensitive pattern matching. |
| m | Treat string as multiple lines: ^ and \$ match internal \n |
| S | Treat string as single line: ^ and \$ ignore \n, but . matches \n |
| х | Extend your pattern's legibility with whitespace and comments. |

| Extended Regular Expression | | |
|-----------------------------|---|--|
| (?#) | Comment, "" is ignored. | |
| (?:) | Matches but doesn't return "" | |
| (?=) | Matches if expression would match "" next | |
| (?!) | Matches if expression wouldn't match "" next | |
| (?imsx) | Change matching rules (see options) midway through an expression. | |

| Grouping | |
|----------|---|
| () | Grouping. Group several items into a single unit that can be used with * , * , * , and so on, and remember the characters that match this group for use with later references. |
| 1 | Alternation. Match either the subexpressions to the left or the subexpression to the right. |
| \n | Match the same characters that were matched when group number n was first matched. Groups are subexpressions within (possibly nested) parentheses. |

| Anchors | |
|---------|---|
| ^ | Match the beginning of the string, and, in multiline searches (/m), the beginning of a line. PHP: Use \A to match beginning of string in all line matching modes. |
| \$ | Match the end of the string, and, in multiline searches (/m), the end of a line. PHP: Use \z and \Z to match the end of a string or end of text respectively. |
| \b | Match a word boundary. That is, match the position between a \w character and a \W character. (Note, however, that [\b] matches backspace.) |
| \B | Match a position that is not a word boundary. |