

# REGEX [Regular Expressions]

- PHP has 2 "languages" for Regex, POSIX & **PCRE** [Perl Compatible Regular Expressions]
- PCRE functions start with "preg-" ↳ more powerful.
- quick alternatives

`$x = strpos($string, $findMe);`

`x` is the position where `$findMe` appears first or (`=== false`).

- using a regex needs 2 delimiters ↳ anything inside will be searched for in the entire given string
- OR is `|` ex: `'ab|cd'` is true for `abx`, `acd`, `xcd`, `xcdn`, etc...
- Flags: added to the end of a regex that add options (can be stacked)

`g` search globally for all occurrences  
`i` ignore case sensitivity  
`m` multiple lines (ignore newline)

- Start/End Limiters: apply as placeholders

`^` beginning of string  
`$` end of string  
`\b` both beginning or end depending on where it is used  
`\B` opposite of `\b` (char inside a word)

- Quantifiers: apply to item to the left

`?` 0 or 1  
`+` 1 or more  
`*` 0 or 1 or more  
`{x}` x times  
`{x,y}` x to y times  
`{x,}` x or more times

- Character Classes

`[xyz...]` x or y or z or ...  
`[a-n]` a to n  
`[a-n0-7...]` a to n or 0 to 7 or ...  
`[^...]` means not this

- Special Classes:

`[[:xxxx:]]`

↳ alpha letter

lower lowercase letter

upper uppercase letter

alnum alphanumeric

digit number

punct `!@#$%^&*()-+=`

space white space

blank space or tab

graph printable

cntrl escape

xodigit hexadecimal

print printable character except ctrl + n

- Metacharacters: need `\` before them `[ ] ! ( ) { } ^ $ ? . + * \ #`

Notes: doesn't apply inside `[ ]`.

- Short classes:

• any character  
`\w` `[a-zA-Z0-9_]`  
`\W` not `\w`  
`\d` `[0-9]`  
`\D` not `\d`  
`\s` `[\t\n\r]`  
`\S` not `\s`

- PCRE functions:

`preg-match` (string pattern, string subject, `/` optional `$result`);  
true if pattern matches subject  
`$result[0]`: part of subject that satisfies pattern  
`$result[1]`: part that satisfies first `()`.  
etc...

`preg-match-all` (string pattern, string subject, `$res`); ex: `$res[0][1]`  
`$res[0]` is an array of all substrings of `↑` that match the pattern.

`preg-replace` (string p1, string p2, string subject, `/` int limit);  
replaces occurrences of p1 (up to limit) with p2

`preg-quote` (string subject); adds `\` before metacharacters