Regex Reference

Syntax	Meaning	Example
Ordinary text	Match those characters in order	`cat` matches `cat` inside `scatter`
`.`	Any one character except a newline	`c.t` matches `cat` or `cut`
`\.`	A literal dot	`a\.b` matches `a.b`
`\d`	One digit	`\d` matches `4`
`\w`	One word character: a letter, digit, or underscore	`\w` matches `a`, `4`, or `_`
`\s`	One whitespace character	`\s` matches a space, tab, or newline
`\S`	One character that is not whitespace	`\S` matches `a` or `!`, but not a space
`[abc]`	One of the listed characters	`[aeiou]` matches a lowercase vowel
`[a-z]`, `[A-Z]`, `[0-9]`	One character from a range	`[A-Z][0-9]` matches `B7`
`[^abc]`	One character outside the set	`[^0-9]` matches a character other than an ASCII digit
`*`	Zero or more of the preceding character or group	`ab*` matches `a`, `ab`, or `abbb`
`+`	One or more	`\d+` matches a run of digits
`?`	Zero or one	`colou?r` matches `color` or `colour`
`{n}`	Exactly `n` repetitions	`\d{3}` matches three digits
`{m,n}`	Between `m` and `n` repetitions	`\d{3,5}` matches three to five digits
`.*`	Zero or more characters, except newlines	`a.*b` matches `ab` or `a long b`
`^`	Start of the string	`^cat` matches `cat nap` but not `the cat`
`$`	End of the string, or just before a final newline	`cat$` matches `the cat` but not `cat nap`
`(...)`	Group a pattern and capture its matched text	`(ab)+` repeats the pair `ab`
`|`	Match either alternative	`cat|dog` matches either word
`\g<1>` in a **replacement**	Insert the text captured by group 1	`r'birthday: (\d+)'` with replacement `r'day \g<1>'` turns `birthday: 14` into `day 14`

Python functions

Function	Arguments	Result
`re.search`	`pattern, text`	First match anywhere in the text: a match object, or `None` if there is no match.
`re.findall`	`pattern, text`	List of non-overlapping matches, in order. Capturing groups determine which parts it returns. No matches gives `[]`.
`re.fullmatch`	`pattern, text`	A match object if the entire string matches; otherwise `None`.
`re.sub`	`pattern, replacement, text`	New string with every non-overlapping match replaced. The original string is unchanged.