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JavaScript RegExp Reference

RegExp Object

A regular expression is an object that describes a pattern of characters.

Regular expressions are used to perform pattern-matching and "search-and-replace" functions on text.

Syntax

```
/pattern/modifiers;
```

Example:

```
var patt = /w3schools/i
```

Example explained:

- **/w3schools/i** is a regular expression.
- **w3schools** is a pattern (to be used in a search).
- **i** is a modifier (modifies the search to be case-insensitive).

For a tutorial about Regular Expressions, read our JavaScript RegExp Tutorial (/js/js_regexp.asp).

Modifiers

Modifiers are used to perform case-insensitive and global searches:

Modifier	Description
i (jsref_regexp_i.asp)	Perform case-insensitive matching
g (jsref_regexp_g.asp)	Perform a global match (find all matches rather than stopping after the first match)
m (jsref_regexp_m.asp)	Perform multiline matching

Brackets

Brackets are used to find a range of characters:

Expression	Description
[abc] (jsref_regexp_charset.asp)	Find any character between the brackets
[^abc] (jsref_regexp_charset_not.asp)	Find any character NOT between the brackets
[0-9] (jsref_regexp_0-9.asp)	Find any digit between the brackets
[^0-9] (jsref_regexp_not_0-9.asp)	Find any digit NOT between the brackets
(x|y) (jsref_regexp_xy.asp)	Find any of the alternatives specified

Metacharacters

Metacharacters are characters with a special meaning:

Metacharacter	Description
. (jsref_regexp_dot.asp)	Find a single character, except newline or line terminator
\w (jsref_regexp_wordchar.asp)	Find a word character
\W (jsref_regexp_wordchar_non.asp)	Find a non-word character
\d (jsref_regexp_digit.asp)	Find a digit
\D (jsref_regexp_digit_non.asp)	Find a non-digit character
\s (jsref_regexp_whitespace.asp)	Find a whitespace character
\S (jsref_regexp_whitespace_non.asp)	Find a non-whitespace character
\b (jsref_regexp_begin.asp)	Find a match at the beginning/end of a word
\B (jsref_regexp_begin_not.asp)	Find a match not at the beginning/end of a word

\0 (jsref_regexp_nul.asp)	Find a NUL character
\n (jsref_regexp_newline.asp)	Find a new line character
\f (jsref_regexp_formfeed.asp)	Find a form feed character
\r (jsref_regexp_carriagereturn.asp)	Find a carriage return character
\t (jsref_regexp_tab.asp)	Find a tab character
\v (jsref_regexp_vtab.asp)	Find a vertical tab character
\xxx (jsref_regexp_octal.asp)	Find the character specified by an octal number xxx
\xdd (jsref_regexp_hex.asp)	Find the character specified by a hexadecimal number dd
\uxxxx (jsref_regexp_unicode_hex.asp)	Find the Unicode character specified by a hexadecimal number xxxx

Quantifiers

Quantifier	Description
n+ (jsref_regexp_onemore.asp)	Matches any string that contains at least one *n*
n* (jsref_regexp_zeromore.asp)	Matches any string that contains zero or more occurrences of *n*
n? (jsref_regexp_zeroone.asp)	Matches any string that contains zero or one occurrences of *n*
n{X} (jsref_regexp_nx.asp)	Matches any string that contains a sequence of *X* *n*'s
n{X,Y} (jsref_regexp_nxy.asp)	Matches any string that contains a sequence of X to Y *n*'s
n{X,} (jsref_regexp_nxcomma.asp)	Matches any string that contains a sequence of at least X *n*'s
n$ (jsref_regexp_ndollar.asp)	Matches any string with *n* at the end of it
^n (jsref_regexp_ncaret.asp)	Matches any string with *n* at the beginning of it

?=n (jsref_regexp_nfollow.asp)	Matches any string that is followed by a specific string *n*
?!n (jsref_regexp_nfollow_not.asp)	Matches any string that is not followed by a specific string *n*

RegExp Object Properties

Property	Description
constructor (jsref_regexp_constructor.asp)	Returns the function that created the RegExp object's prototype
global (jsref_regexp_global.asp)	Checks whether the "g" modifier is set
ignoreCase (jsref_regexp_ignorecase.asp)	Checks whether the "i" modifier is set
lastIndex (jsref_regexp_lastindex.asp)	Specifies the index at which to start the next match
multiline (jsref_regexp_multiline.asp)	Checks whether the "m" modifier is set
source (jsref_regexp_source.asp)	Returns the text of the RegExp pattern

RegExp Object Methods

Method	Description
compile() (jsref_regexp_compile.asp)	Deprecated in version 1.5. Compiles a regular expression
exec() (jsref_regexp_exec.asp)	Tests for a match in a string. Returns the first match
test() (jsref_regexp_test.asp)	Tests for a match in a string. Returns true or false
toString()	Returns the string value of the regular expression

(jsref_regexp_tostring.asp)