

# Playing with Matches

## An Introduction to Regular Expressions



**Brackets [ ]** – find one of a list or range of characters

**Parentheses ( )** – designate a group; allows options when used with |; match is stored in a backreference

**Metacharacters** – characters with a special meaning

- \w Find a word character
- \W Find a non-word character
- \d Find a digit
- \D Find a non-digit character
- \s Find a whitespace character
- \S Find a non-whitespace character
- \b Find a match at the beginning/end of a word
- \B Find a match not at the beginning/end of a word
- \0 Find a NUL character
- \n Find a new line character
- \f Find a form feed character
- \r Find a carriage return character
- \t Find a tab character
- \v Find a vertical tab character
- \xxx Find the character specified by an octal number xxx
- \xdd Find the character specified by a hexadecimal number dd
- \uxxxx Find the Unicode character specified by a hexadecimal number xxxx
- \1 - \99 Backreference 1 through 99 (\k and \g also used to capture backreferences)
- ^ The match must be at the beginning of the string
- \$ The match must be at the end of the string
- . Find a single character, except newline or line terminator
- | OR character

**Quantifiers** – express number of characters to match or limit what will match based on other criteria.

- x+ Matches any string that contains at least one x
- x\* Matches any string that contains zero or more occurrences of x
- x? Matches any string that contains zero or one occurrences of x
- x{X} Matches any string that contains a sequence of X x's
- x{X,Y} Matches any string that contains a sequence of X to Y x's
- x{X,} Matches any string that contains a sequence of at least X x's
- ?=x Matches any string that is followed by a specific string x
- ?<=x Matches any string preceded by a specific string x
- ?!x Matches any string that is not followed by a specific string x
- ?<=x Matches any string not preceded by a specific string x

(Modified from a list found at: [https://www.w3schools.com/jsref/jsref\\_obj\\_regexp.asp](https://www.w3schools.com/jsref/jsref_obj_regexp.asp))