

## Cheat Sheet: Google Refine Expression Language (GREL)

A more complete reference is available at <https://github.com/OpenRefine/OpenRefine/wiki/Google-refine-expression-language>.

For a complete list of GREL functions, see <https://github.com/OpenRefine/OpenRefine/wiki/GREL-Functions>.

Function	What it does	What it returns	Parameters	Example
<code>value.match(/regex/)</code> <code>value.match(/regex/)[index]</code>  <code>value.match("string")</code> <code>value.match("string")[index]</code>	Attempts to match the regular expression <i>regex</i> or string <i>string</i> with <i>value</i> . Use <i>/. *regex.*/</i> to match a partial string.	An array (even if only one match is found). If <i>[index]</i> is present, returns the corresponding string within the array.	<i>regex</i> = regular expression to match against <i>index</i> = index of a string within the array	<code>value = "The cat can't lay on the cot"</code> <code>value.match(/c.t/) → ["cat", "cot"]</code> <code>value.match(/c.t/)[0] → "cat"</code>
<code>value.contains(/regex/)</code> <code>value.contains("string")</code>	Determines whether <i>value</i> contains the regular expression <i>regex</i> or the string <i>string</i> .	A Boolean (true or false).	<i>regex</i> = regular expression to search	<code>value = "coffee and tea and chai and mate"</code> <code>value.contains("and") → TRUE</code>
<code>value.replace(t, u)</code>  If <i>t</i> is a regular expression, use <i>/(t)/</i>	Returns <i>value</i> with all occurrences of the string or regular expression <i>t</i> replaced with the string <i>u</i> .	A string.	<i>t</i> = string or regex to replace <i>u</i> = string or regex that replaces <i>t</i>	<code>value = "coffee and tea and chai and mate"</code> <code>value.replace(" and ", ", ") → "coffee, tea, chai, mate"</code>
<code>value.trim()</code>	Removes any leading or trailing white space <i>value</i> .	A string.	n/a	<code>value = " coffee "</code> <code>value.trim() → "coffee"</code>
<code>value.length()</code>	String: Returns the length of <i>value</i> . Array: Returns the number of terms in the array <i>value</i> .	A number.	n/a	<code>value = "coffee"</code> <code>value.length() → 6</code>  <code>value = ["coffee", "tea"]</code> <code>value.length() → 2</code>
<code>value.split(delim)</code> <code>value.split(delim)[index]</code>	Splits string <i>value</i> into an array, breaking at each instance of the string delimiter <i>delim</i> .	An array. If <i>[index]</i> is present, returns the corresponding string within the array.	<i>delim</i> = delimiter between array elements <i>index</i> = index of a string within the array	<code>value = "coffee, tea, chai, mate"</code> <code>value.split(", ") → ["coffee", "tea", "chai", "mate"]</code> <code>value.split(", ")[-1] → "mate"</code>
<code>value.join(separator)</code>	Joins the elements in the array <i>value</i> into a string with connector <i>separator</i> .	A string.	<i>separator</i> = the link used to join array elements into a string	<code>value = ["coffee", "tea", "chai", "mate"]</code> <code>value.join(" AND ") → "coffee AND tea AND chai AND mate"</code>

<code>value.slice(x, y)</code>	String: Gives each character in <i>value</i> an index as in an array, and returns the part of this array with index <i>x</i> up to but not including index <i>y</i> . Array: Returns the elements of an array from index <i>x</i> up to but not including index <i>y</i> .	String: a string. Array: an array.	<i>x</i> = index at which to start slice <i>y</i> = index before which to stop slice	<code>value = "coffee"</code> <code>value.slice(1, 4) → "off"</code>  <code>value = ["coffee", "tea", "chai", "mate"]</code> <code>value.slice(0, 2) → ["coffee", "tea", "chai"]</code>
<code>value.partition(fragment)</code> <code>value.partition(fragment)[index]</code>  <code>value.partition(fragment, true) =</code> omits <i>fragment</i> from returned array	Returns an array consisting of the part of <i>value</i> before the first occurrence of <i>fragment</i> , <i>fragment</i> , and the part of <i>value</i> after the first occurrence of <i>fragment</i> .	An array with three terms. If <i>[index]</i> is present, returns the corresponding string within the array.	<i>fragment</i> = the substring or regular expression around which <i>value</i> is partitioned <i>index</i> = index of a string within the array	<code>value = "coffee and tea and chai"</code> <code>value.partition(" and ") → ["coffee", " and ", "tea and chai"]</code> <code>value.partition(" and ")[1] → " and "</code>
<code>value.rpartition(fragment)</code> <code>value.rpartition(fragment)[index]</code>  <code>value.rpartition(fragment, true) =</code> omits <i>fragment</i> from returned array	Returns an array consisting of the part of <i>value</i> before the last occurrence of <i>fragment</i> , <i>fragment</i> , and the part of <i>value</i> after the last occurrence of <i>fragment</i> .	An array with three terms. If <i>[index]</i> is present, returns the corresponding string within the array.	<i>fragment</i> = the substring or regular expression around which <i>value</i> is partitioned <i>index</i> = index of a string within the array	<code>value = "coffee and tea and chai"</code> <code>value.rpartition(" and ") → ["coffee and tea", " and ", "chai"]</code> <code>value.rpartition(" and ")[0] → "coffee and tea"</code>
<code>value.reverse()</code>	Reverses the order of the elements in the array <i>value</i> .	An array.	n/a	<code>value = ["coffee", "tea", "chai", "mate"]</code> <code>value.reverse() → ["mate", "chai", "tea", "coffee"]</code>
<code>not(booleanexp)</code>	Returns "TRUE" if the value of <i>booleanexp</i> is false	A Boolean (true or false).	<i>booleanexp</i> = a function or expression that returns TRUE or FALSE	<code>value = "coffee"</code> <code>not(value.contains("a")) → TRUE</code>