

ARRAY HELPER METHODS

1) map()

purpose: transforms each element of an array into a new array

Syntax: `arr.map(callback(element, index, array))`

example: `[1, 2, 3].map(item \Rightarrow item * 2)`

output: `[2, 4, 6]`

2) filter()

purpose: filters element of an array based on a condition

Syntax: `arr.filter(callback(element, index, array))`

example: `[1, 2, 3, 4, 5].filter(item \Rightarrow item > 2)`

output: `[3, 4, 5]`

3) reduce()

purpose: reduces an array to a single value using an accumulator

Syntax: `arr.reduce(callback(accumulator, element, index, array),
initialvalue)`

example: `[1, 2, 3].reduce((acc, item) \Rightarrow acc + item, 0)`

Output: 6

4) `foreach()`

purpose: Executes a provided function once for each array element

syntax: `arr.foreach(callback(element, index, array))`

example: `[1, 2, 3].foreach(item \Rightarrow console.log(item))`

output: 1, 2, 3 (in console)

5) `find()`

purpose: Returns the first element in an array that satisfies a condition

syntax: `arr.find(callback(element, index, array))`

example: `[1, 2, 3, 4, 5].find(item \Rightarrow item > 2)`

output: 3

6) `sort()`

purpose: sorts the elements of an array

syntax: `array.sort(compareFunction(a, b))`

example: `[3, 1, 2].sort((a, b) \Rightarrow a - b)`

output: [1, 2, 3]