

Array Methods



Methods We'll Cover

- Find
- Map
- Filter
- Reduce
- Sort

Documentation for all array methods can be found at:

[Mozilla Developer Network](#)

Find

- Only returns one element (first element that matches)
- Returns either true or false
- Use:
 - Find one element in an array
 - Turns an array into a single element

```
let findSomeElement = someArray.find(element => {  
  return element === "someElement";  
});
```

Find Explanation

Array

```
[  
  'element1',  
  'element2',  
  'element3',  
  ...,  
]
```

Find



return element === 'element2'

Single Element

```
[  
  'element2',  
]
```

Map

- Returns a new array (shallow copy)
- Callback function returns a new element to be added to the new array
- Use:
 - Applies a change to each element in an array

```
let addFive = someArray.map(element => {  
  return element + 5;  
});
```

Map Explanation

Array

```
[  
  'element1',  
  'element2',  
  'element3',  
  ...,  
]
```

Map



return `

\${element}</div>`

**Array of Changed
Elements**

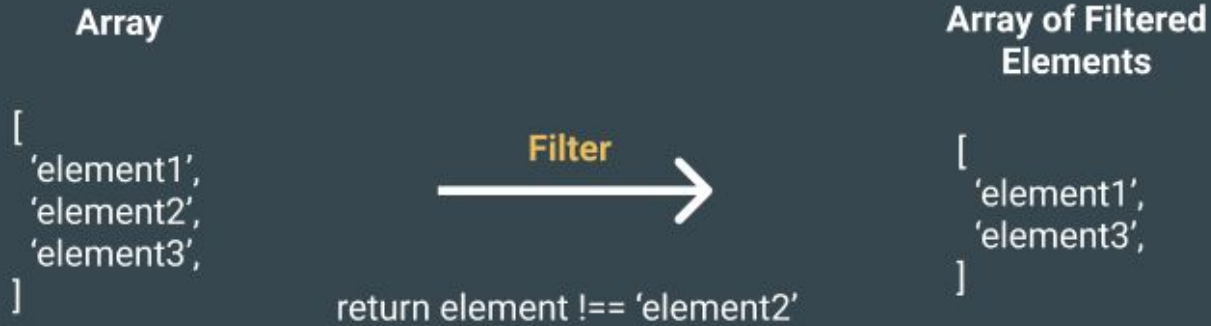
```
[  
  '<div>element1</div>',  
  '<div>element2</div>',  
  '<div>element3</div>',  
  ...,  
]
```

Filter

- Does the same thing as find but returns more than one element
- Use:
 - Turns an array into a smaller array
 - Create a new array out of elements of an existing array that meet a condition

```
let someFilter = someArray.filter(element => {  
  return element.number < 5;  
});
```

Filter Explanation

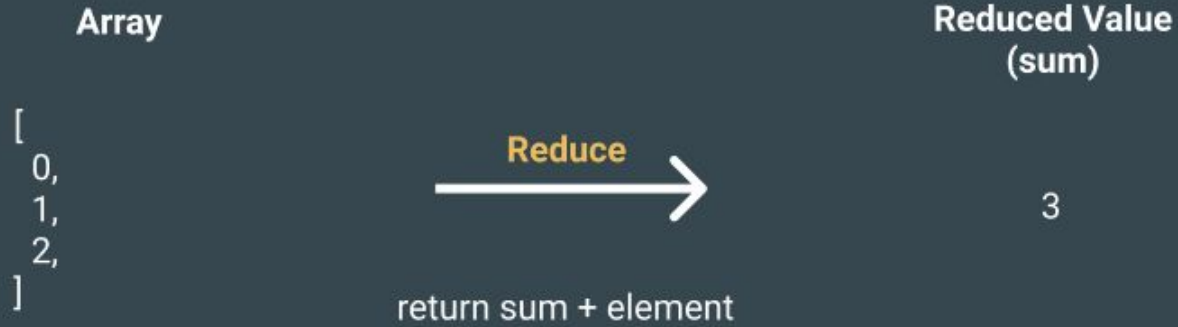


Reduce

- The multi-tool of array methods
- Can be used to implement the functionality of any of the other array methods
- Use:
 - Reduce an array to a single value
 - Create a new object from values in an array

```
let reduceSomeArray = someArray.reduce((sum, element) => {  
  return sum + element.number;  
}, 0);
```

Reduce Explanation



Sort

- Sorts an array
- Does not create a new array
- Use:
 - Sort an array based on string Unicode code points (default)
 - Sort an array numerically

```
let sortSomeArray = someArray.sort();
```

Sort Explanation

Array

```
[  
  'element3',  
  'element1',  
  'element2',  
]
```

Sort



Sorted Array

```
[  
  'element1',  
  'element2',  
  'element3',  
]
```