

Unit conversion with javascript Array.map()



JavaScript



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percentages to fractions. An array of these measurements can conveniently and quickly get converted with javascript's `Array.map()` method.

The `map()` method is called as a prototype method of an array. The function passed to `array.map()` runs on every element in that array, and then returns a new array with the returned values.

The following examples convert distance, temperature, weight, and time to demonstrate some scenarios for when and how to use the `Array.map()` method.

1 Convert Meters to Centimeters

2 Convert Celsius to Fahrenheit

3 Convert Kilograms to Grams

4 Convert Years to Days

Let's say we have an array of measurements in meters, but what we really need is an array of those measurements in centimeters. To convert from Meters to Centimeters multiply total meters by 100

```
1
2     function meters_to_centimeters( distance ) {
3         var centimeters = distance * 100;
4         return centimeters;
5     }
6
7     var meters_array = [2, 1.5, 14, 4.2, 8];
```



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```

1
2     function celsius_to_fahrenheit( temperature ) {
3         var fahrenheit = (temperature * 1.8) + 32;
4         return fahrenheit;
5     }
6
7     var temperatures_in_celsius = [10, 16, 20, 24, 32];
8
9     var temperatures_in_fahrenheit = temperatures_in_cels
10 ius.map(celsius_to_fahrenheit);
11
12     console.table([temperatures_in_celsius, temperatures_i
13 n_fahrenheit]);
14     //celsius: [10, 16, 20, 24, 32];
15     //fahrenheit: [50, 60.8, 68, 75.2, 89.6];

```

Let's take a look at an example using the map() method to convert a array of weights in kilograms to an array in grams. To convert weight from Kilograms to grams, multiply by 1000

```

1
2     function kilograms_to_grams( weight ) {
3         var grams = weight * 1000;
4         return grams;
5     }
6
7     var weights_in_kilograms = [12, 6, 2, 14, 7];
8
9     var weights_in_grams = weights_in_kilograms.map(kilog

```



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```
3         var days = time * 365;
4         return days;
5     }
6
7     var years_array = [12, 21, 31, 54, 72];
8
9     var days_array = years_array.map(years_to_days);
10
11     console.table([years_array, days_array]);
12     //years: [12, 21, 31, 54, 72];
13     //days: [4380, 7665, 11315, 19710, 26280];
14
```

To summarize, javascripts `Array.map()` method is useful for converting a group of measurements with javascript. Whether you are looking to convert a group of distances, temperatures, weights, times or other units, `Array.map()` can handle the job. `Array.map()` goes much deeper and can handle many more use cases. `Array.map()` also has parameters passed in with the callback function including `currentValue`, `index`, and the array that `.map()` was called from. While the above examples map over an array of numbers, `.map()` can also be used with strings, objects, and other types stored within the array.

For a more in depth explanation of the `Array.map()` javascript method, checkout the Mozilla Developer Network `map()` method documentation.

[MDN Array.prototype.map\(\)](#)

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