# Map()

The **map()** method **creates a new array** with the results of calling a provided function on every element in the calling array.

var array1 = [1, 4, 9, 16];

// pass a function to map

const map1 = array1.map(x => x \* 2);

console.log(map1);

// expected output: Array [2, 8, 18, 32]

## Syntax:

*var new\_array = arr*.map(function *callback(currentValue[, index[, array]]) {*

// Return element for new\_array

*}*[, *thisArg*])

Parameters

**callback**

Function that produces an element of the new Array, taking three arguments:

**currentValue**

The current element being processed in the array.

**index** Optional

The index of the current element being processed in the array.

**array** Optional

The array map was called upon.

**thisArg** Optional

Value to use as this when executing callback.

Return value

A new array with each element being the result of the callback function.

const companies= [

  {name: "Company One", category: "Finance", start: 1981, end: 2004},

  {name: "Company Two", category: "Retail", start: 1992, end: 2008},

  {name: "Company Three", category: "Auto", start: 1999, end: 2007},

  {name: "Company Four", category: "Retail", start: 1989, end: 2010},

  {name: "Company Five", category: "Technology", start: 2009, end: 2014},

  {name: "Company Six", category: "Finance", start: 1987, end: 2010},

  {name: "Company Seven", category: "Auto", start: 1986, end: 1996},

  {name: "Company Eight", category: "Technology", start: 2011, end: 2016},

  {name: "Company Nine", category: "Retail", start: 1981, end: 1989}

];

const ages = [33, 12, 20, 16, 5, 54, 21, 44, 61, 13, 15, 45, 25, 64, 32];

// 1st Example: show name of companies

let comp\_names = companies.map(company=>company.name);

console.log(comp\_names);

// 2nd Example: show 'companyName[startDate-endDate]

let comp\_names = companies.map(

  company => `${company.name} [${company.start}-${company.end}`

);

console.log(comp\_names);

// 3rd Example: first: age + 1, then: age + 2

let comp\_names = ages.map(age=>age+1).map(age=>age+2);

console.log(comp\_names);