

# Nation Code

## JavaScript Fundamentals

Arrays

{codenation}<sup>®</sup>

# Learning Objectives

- To understand the uses of arrays
- To understand the syntax of creating an array
- To use a variety of methods to work with arrays

# First thing's first

Create a function with two parameters that returns the result of multiplying the two numbers.

Then log the result to the console.

```
const multiply = (num1, num2) => {  
    return num1 * num2;  
}
```

```
console.log(multiply(2, 3));
```

# An array of riches

**Coding is all about data –  
storing it, retrieving it,  
doing stuff with it**

**In the real-world,  
we make lists**

**Let's see**



# Coffee order :

**Alex- Cortado**

**Ben - Cortado**

**Charlie - whatever's new**



**We can do the same thing in**  
**JavaScript**

```
let coffeeOrder = [  
  "Alex – Cortado",  
  "Ben – Cortado",  
  "Charlie – Whatever's new"  
];  
  
console.log(coffeeOrder);
```

# Activity:

Make an array of your favourite songs.

3 of them.

Log to console.

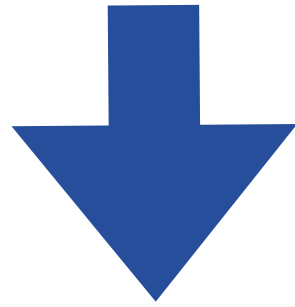


**Like any good list, we can  
access individual items**

**We use square brackets**  
**for that [ ]**

```
console.log(coffeeOrder[2]);
```

```
console.log(coffeeOrder[2]);
```



**Charlie** - whatever's new

**But wasn't that the 3rd item?**



**JavaScript starts counting at 0,  
so 0, 1, 2 = our 3 items in  
coffeeOrder**

**Arrays can be  
updated like variables**

```
let coffeeOrder = [  
  "Alex – Cortado",  
  "Ben – Cortado",  
  "Charlie – Whatever's new"  
];  
  
coffeeOrder[1] = "Ann – Vanilla latte";
```

**Properties work, just like in variables.**

**Are you getting this yet?**

```
let coffeeOrder = [  
  "Alex – Cortado",  
  "Ben – Cortado",  
  "Charlie – Whatever's new"  
];  
  
console.log(coffeeOrder.length);
```

**It will output the number of  
items in the array, not the  
number of characters**

**Have you ever gone shopping and just had to add those chocolate biscuits to the end of your list?**

**JavaScript's got you covered.**  
**The .push method.**



```
let coffeeOrder = [  
  "Alex – Cortado",  
  "Ben – Cortado",  
  "Charlie – Whatever's new"  
];  
  
coffeeOrder.push("Donna – espresso");
```

**Have you ever thought you  
actually don't want that  
pointless broccoli?**

**JavaScript's got you covered.**  
**The .pop method, which removes**  
**the last item from your list (array)**

```
let coffeeOrder = [  
  "Alex – Cortado",  
  "Ben – Cortado",  
  "Charlie – Whatever's new"  
];  
  
coffeeOrder.pop();
```

**Lots of methods available to use in arrays, from adding things, removing things, adding in certain places.**

- `shift()`
- `unshift()`
- `slice()`
- `splice()`

**so many...**

**Check out the Mozilla Developer Network for more.**

[https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\\_Objects/Array](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Array)

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## Activity(1):

Create a list of your favourite website (3 of them), and then add another two once you've created the list. Then remove the last website.

## Activity(2):

Research on the following methods: `shift()`, `unshift()`, `slice()`, `splice()` (and many more). Create a program to demonstrate the uses of each method, some of these you may need more than one example. (Pay attention: not all methods would permanently updates/make changes to the arrays themselves.)



**For more info:**

[https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\\_Objects/Array](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Array)