# JavaScript Arrays

### Why Use Arrays?

If you have a list of items (a list of car names, for example), storing the cars in single variables could look like this:

```
let car1 = "Saab";
let car2 = "Volvo";
let car3 = "BMW";
```

# **Creating an Array**

Using an array literal is the easiest way to create a JavaScript Array.

Syntax:

```
const array name = [item1, item2, ...];
```

#### **Example**

```
const cars = ["Saab", "Volvo", "BMW"];
```

#### **Example**

```
const cars = [
   "Saab",
   "Volvo",
   "BMW"
];
```

```
No Issues
12
     <script>
13
                                                                    ▼ (5) [10, 20, 30, 40, 50] 1
     let list=[10,20,30,40,50]
14
                                                                       0: 10
                                                                       1: 20
     console.log(list)
15
                                                                       2: 30
16
                                                                       3: 40
17
                                                                       4: 50
     </script>
18
                                                                       length: 5
19
                                                                      ▶ [[Prototype]]: Array(0)
20
21
22
```

## **Accessing Array Elements**

You access an array element by referring to the **index number**:

```
Default levels ▼
<script>
//You access an array element by index number
                                                                10
                                                                20
let list=[10,20,30,40,50]
                                                                30
// console.log(list)
                                                                40
                                                                50
console.log(list[0])
                                                               >
console.log(list[1])
console.log(list[2])
console.log(list[3])
console.log(list[4])
</script>
```

```
// Stor string value in array
let fruits=['banana','apple','orange']
console.log(fruits)

console.log(fruits[0])
console.log(fruits[1])
console.log(fruits[2])

//script>
```

```
Default levels ▼ No Issues

▶ (3) ['banana', 'apple', 'orange']

banana

apple

orange

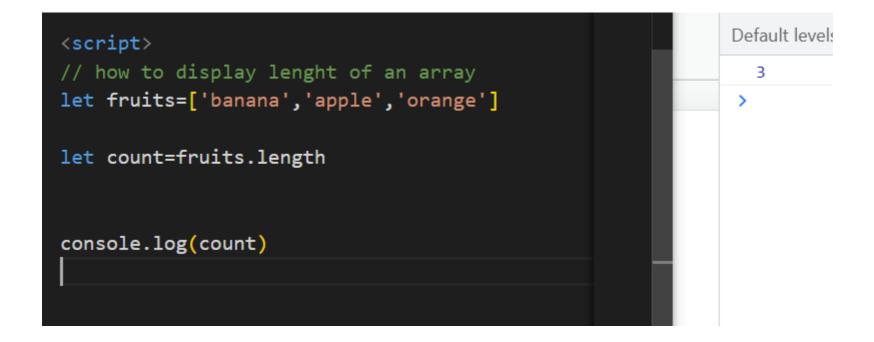
>
```

# The length Property

The length property of an array returns the length of an array (the number of array elements).

#### Example

```
const fruits = ["Banana", "Orange", "Apple", "Mango"];
let length = fruits.length;
```



# **Adding Array Elements**

The easiest way to add a new element to an array is using the push() method:

```
Default levels ▼ | No Issues
// adding array element
                                                                                                                     index.ht
    let fruits = ["banana", "apple", "orange"];
                                                                               ▼ (4) ['banana', 'apple', 'orange', 'lemon'] 📵
   fruits.push("lemon")
                                                                                   0: "banana"
                                                                                   1: "apple"
                                                                                   2: "orange"
    length=fruits.length
                                                                                   3: "lemon"
                                                                                   length: 4
    console.log(fruits)
                                                                                 ▶ [[Prototype]]: Array(0)
    console.log(length)
                                                                                                                     index.ht
```

#### **Remove element from last**

```
// Remove array element from last
let fruits = ["banana", "apple", "orange"];
fruits.pop()

length=fruits.length

console.log(fruits)
console.log(length)
```

#### Add array element from beginning

```
// Add array element from beginning

let fruits = ["banana", "apple", "orange"];

fruits.unshift("mango")

length=fruits.length

console.log(fruits)
console.log(length)

index.html:64

▼ (4) ['mango', 'banana', 'apple', 'orange'] i

0: "mango"
1: "banana"
2: "apple"
3: "orange"
length: 4

▶ [[Prototype]]: Array(0)

4

index.html:65

>
```

#### Remove array element from beginning

## display array element using for loop

```
Default levels ▼ No Issues

// display array element using for loop

let fruits = ["banana", "apple", "orange"];
length=fruits.length

for(let i=0;i<length;i=i+1)
console.log(i+ " "+fruits[i])
```

```
// sort array element

let fruits = ["banana", "apple", "orange"];

// fruits = fruits.sort();

// fruits=fruits.sort().reverse();

length = fruits.length;
  for (let i = 0; i < length; i = i + 1) console.log(i + " " + fruits[i]);

</script>
/html>
```