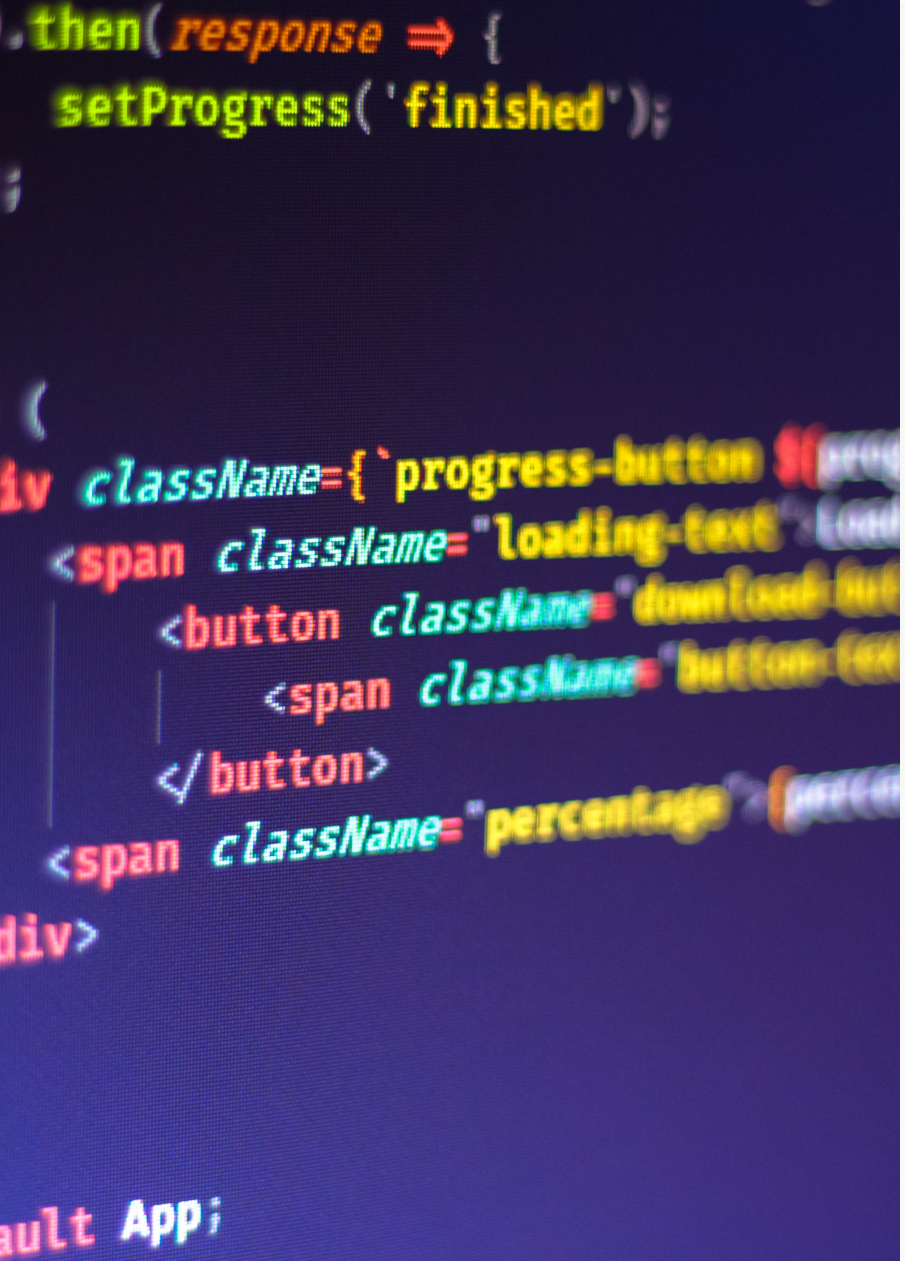


The Power of JavaScript Array Objects

JavaScript Arrays are an essential component of web development. With the ability to hold multiple values in a single variable, they provide flexibility and efficiency. In this presentation, we'll dive deep into their power, explore methods, and see how to iterate through arrays with forEach().

by shubham ss

The Basics: Creating and Accessing Arrays

Creating Arrays

Arrays can be created with square brackets or Array() constructor function.

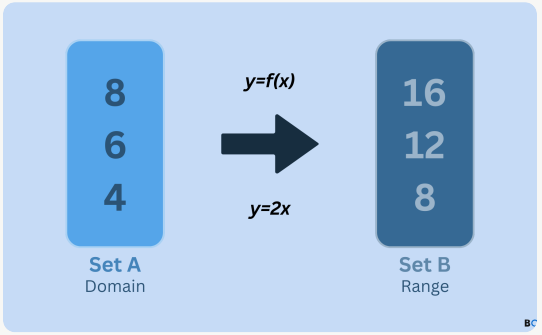
Accessing Elements

Elements can be accessed using index in square brackets starting from 0.

Length Property

The length property shows the number of elements in the array.

Built-in Methods and Functions



Map Method

Creates a new array with the results of calling a provided function on every element in this array.

Reduce Method

Executes a reducer function on each element of the array, resulting in a single output value.

Filter Method

Creates a new array with all elements that pass the test implemented by the provided function.

Creating Our Own Methods

Calling Our Method

Methods can then be called on objects, just like regular properties.

1

Defining A Method

You can add new properties and functions to the object prototype.

2

Example Method

Here's an example of a method which multiplies all elements of an array.

3

Questioning Arrays

1 How Many Elements?

Use the length property to determine how many elements an array has.

2 Does It Include?

Use includes() to check if an array includes a certain value.

3 What is the Index?

Use indexOf() to return the index of the first occurrence of a specified value in an array.

Accessing and Manipulating Array Elements

pop()

Removes the last element from an array

push()

Adds one or more elements to the end of an array

shift()

Removes the first element from an array

unshift()

Adds one or more elements to the front of an array

Iterating Through an Array with forEach()

Example Use

This example uses forEach() to log the text of each element in the array.

1

Syntax

The forEach() method calls a function once for each element in an array, in order.

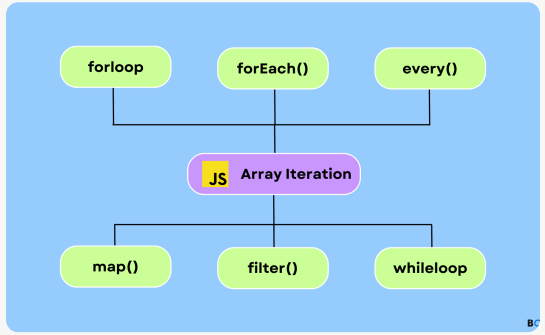
2

3

Benefits

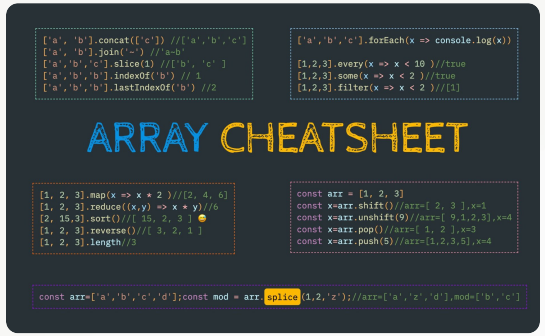
forEach() is faster than other loop methods and results in cleaner code.

Examples of Array Methods and forEach()



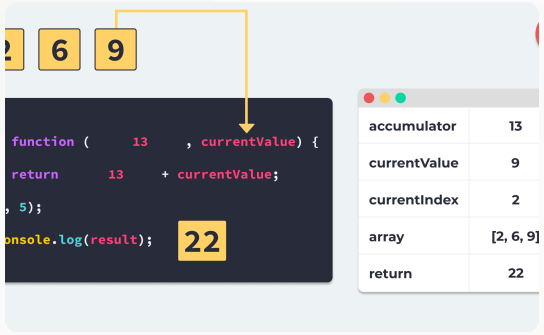
Map Method

The map() method creates a new array with the results of calling a function for every array element.



Filter Method

The filter() method creates a new array with array elements that passes a test.



Reduce Method

The reduce() method reduces the array to a single value.

Conclusion and Takeaways

They're Powerful

Arrays have many capabilities that make them a vital part of web development.

They're Versatile

Arrays can be used in a variety of ways to hold, access, and manipulate data.

They're Essential

Arrays are so important that knowing everything about them is a fundamental part of becoming a JavaScript developer.