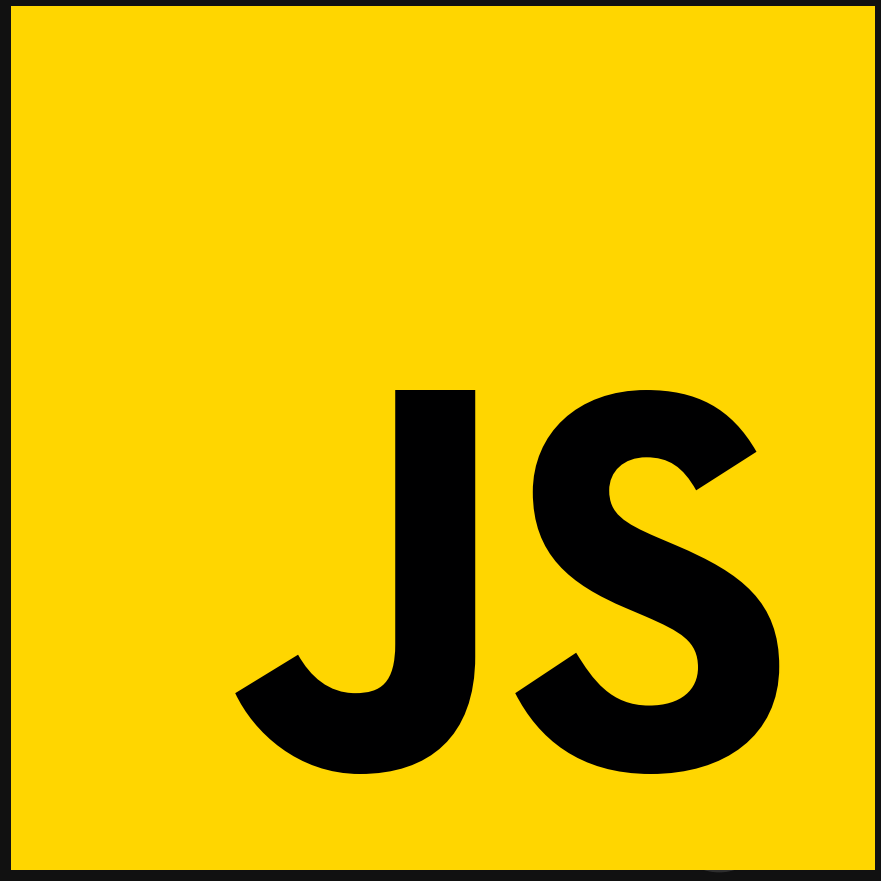
JavaScript Array Methods



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JS

values(): This method returns an iterator that provides the values for each index in the array. It takes no arguments.

```
const arr = ['apple', 'banana', 'cherry']
const iterator = arr.values();

for (const value of iterator) {
  console.log(value);
} // Output: apple banana cherry
```

length(): This property returns the length of the array.

```
const arr = ['apple', 'banana', 'cherry']
console.log(arr.length); // Output: 3
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reverse(): This method reverses the order of the elements in the array.

```
const arr = ['apple', 'banana', 'cherry'];
arr.reverse();
console.log(arr); // Output: ['cherry', 'banana', 'apple']
```

sort(): This method sorts the elements of an array in place and returns the sorted array. It can take an optional compare function as an argument.

```
const arr = ['banana', 'apple', 'cherry'];
arr.sort();
console.log(arr); // Output: ['apple', 'banana', 'cherry']
```

at(): This method returns the element at the specified index in the array. It takes one argument: the index.

```
const arr = ['apple', 'banana', 'cherry'];
console.log(arr.at(1)); // Output: 'banana'
```

fill(): This method fills all the elements of an array from a start index to an end index with a static value. It can take up to three arguments: the value to fill with, the start index, and the end index.

```
const arr = ['apple', 'banana', 'cherry'];
arr.fill('orange', 1, 2);
console.log(arr); // Output: ['apple', 'orange', 'cherry']
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from(): This method creates a new array from an array-like object or an iterable object. It can take up to two arguments: the object to convert to an array, and a mapping function to apply to each element of the new array.

```
const obj = { 0: 'apple', 1: 'banana', 2: 'cherry', length: 3 }
const arr = Array.from(obj);
console.log(arr); // Output: ['apple', 'banana', 'cherry']
```

join(): This method joins all the elements of an array into a string using a specified separator. It takes one optional argument: the separator to use.

```
const arr = ['apple', 'banana', 'cherry'];
const str = arr.join(', ');
console.log(str); // Output: 'apple, banana, cherry'
```

toString(): This method returns a string representing the array and its elements.

```
const arr = ['apple', 'banana', 'cherry'];
const str = arr.toString();
console.log(str); // Output: 'apple,banana,cherry'
```

pop(): This method removes the last element from an array and returns that element.

```
const arr = ['apple', 'banana', 'cherry'];
const last = arr.pop();
console.log(last); // Output: 'cherry'
console.log(arr); // Output: ['apple', 'banana']
```

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forEach() method executes a provided function once for each array element. It doesn't return anything, it just executes the callback function on each element of the array.

```
let fruits = ['apple', 'banana', 'cherry']
fruits.forEach(function (item) {
  console.log(item);
}); // Output: apple, banana, cherry
```

shift() method removes the first element from an array and returns that removed element. This method changes the length of the array.

```
let fruits = ['apple', 'banana', 'cherry'];
let shiftFruit = fruits.shift();
console.log(shiftFruit); // Output: 'apple'
console.log(fruits); // Output: ['banana', 'cherry']
```

copyWithin() method shallow copies part of an array to another location in the same array and returns the modified array without modifying its length.**Syntax** .copyWithin(target, start, end)

```
let numbers = [1, 2, 3, 4, 5];
numbers.copyWithin(2, 0, 2);
console.log(numbers); // Output: [1, 2, 1, 2, 5]
```

push() method adds one or more elements to the end of an array and returns the new length of the array.

```
let fruits = ['apple', 'banana'];
fruits.push('cherry', 'orange');
console.log(fruits); // Output: ['apple', 'banana', 'cherry', 'orange']
```

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unshift() method adds one or more elements to the beginning of an array and returns the new length of the array.

```
let fruits = ['cherry', 'orange'];
fruits.unshift('apple', 'banana');
console.log(fruits); // Output: ['apple', 'banana', 'cherry', 'orange']
```

concat() method is used to merge two or more arrays. This method does not change the existing arrays, but instead returns a new array.

```
let fruits = ['apple', 'banana'];
let moreFruits = ['cherry', 'orange'];
let allFruits = fruits.concat(moreFruits);
console.log(allFruits); // Output: ['apple', 'banana', 'cherry', 'orange']
```

splice() method changes the contents of an array by removing or replacing existing elements and/or adding new elements in place.

```
const fruits = ['apple', 'banana', 'cherry', 'orange'];
//Syntax : arr.splice(start, deleteCount, item1, ..., itemN)
fruits.splice(2, 1, 'mango', 'kiwi');
console.log(fruits); // Output: [ 'apple', 'banana', 'mango', 'kiwi', 'orange'
]
```

flat() This method creates a new array with all sub-array elements concatenated into it recursively up to the specified depth.

```
const numbers = [1, [2, [3]], 4];
const flatNumbers = numbers.flat(Infinity);
console.log(flatNumbers); // Output: [1, 2, 3, 4]
```

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