Array Methods in JavaScript

Some of the useful methods are described below,

|  |  |
| --- | --- |
| Method | Description |
| push() | Adds one or more elements to the end of the array. |
| pop() | Removes the last element from the array and returns it. |
| unshift() | Adds one or more elements to the beginning of the array. |
| shift() | Removes the first element from the array and returns it. |
| concat() | Combines two or more arrays into a new array. |
| slice() | Returns a shallow copy of a portion of the array (selected elements). |
| splice() | Adds, removes, or replaces elements in an array at a specified index. |
| indexOf() | Returns the first index of a specified element. Returns -1 if the element is not found. |
| lastIndexOf() | Returns the last index of a specified element. Returns -1 if the element is not found. |
| includes() | Checks if the array contains a specified element and returns true or false. |
| forEach() | Executes a function for each element in the array (does not return a new array). |
| sort() | Sorts the array in place (can handle strings and numbers, but needs a comparator for numbers). |
| reverse() | Reverses the order of the elements in the array in place. |
| fill() | Fills all or part of the array with a static value. |
| join() | Joins all elements of the array into a string, separated by a specified delimiter. |
| filter() | Creates a new array with elements that match a specified condition. |

Examples:

1. push()

Adds elements to the end of an array.

let arr = [1, 2, 3];

arr.push(4);

console.log(arr); // Output: [1, 2, 3, 4]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. pop()

Removes the last element and returns it.

let arr = [1, 2, 3];

let removed = arr.pop();

console.log(arr); // Output: [1, 2]

console.log(removed); // Output: 3

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. unshift()

Adds elements to the beginning of an array.

let arr = [1, 2, 3];

arr.unshift(0);

console.log(arr); // Output: [0, 1, 2, 3]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. shift()

Removes the first element and returns it.

let arr = [1, 2, 3];

let removed = arr.shift();

console.log(arr); // Output: [2, 3]

console.log(removed); // Output: 1

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. concat()

Combines two or more arrays into a new array.

let arr1 = [1, 2];

let arr2 = [3, 4];

let combined = arr1.concat(arr2);

console.log(combined); // Output: [1, 2, 3, 4]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. slice()

Returns a portion of an array as a new array.

let arr = [1, 2, 3, 4, 5];

let sliced = arr.slice(1, 4);

console.log(sliced); // Output: [2, 3, 4]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. splice()

Adds, removes, or replaces elements at a specified index.

let arr = [1, 2, 3, 4];

arr.splice(1, 2, 'a', 'b'); // Removes 2 elements starting from index 1 and adds 'a', 'b'

console.log(arr); // Output: [1, 'a', 'b', 4]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. indexOf()

Finds the first index of a specified element.

let arr = [1, 2, 3, 2];

console.log(arr.indexOf(2)); // Output: 1

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. lastIndexOf()

Finds the last index of a specified element.

let arr = [1, 2, 3, 2];

console.log(arr.lastIndexOf(2)); // Output: 3

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. includes()

Checks if the array contains a specified element.

let arr = [1, 2, 3];

console.log(arr.includes(2)); // Output: true

console.log(arr.includes(4)); // Output: false

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. forEach()

Executes a function for each element in the array.

let arr = [1, 2, 3];

arr.forEach(num => console.log(num \* 2));

(or)

arr.forEach(function(num) {

console.log(num \* 2);

});

// Output: 2, 4, 6

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. sort()

Sorts the array in place.

let arr = [3, 1, 4, 2];

arr.sort();

console.log(arr); // Output: [1, 2, 3, 4]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. reverse()

Reverses the array in place.

let arr = [1, 2, 3];

arr.reverse();

console.log(arr); // Output: [3, 2, 1]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14. fill()

Fills an array with a static value.

let arr = [1, 2, 3];

arr.fill(0);

console.log(arr); // Output: [0, 0, 0]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. join()

Joins all elements into a string.

let arr = ['a', 'b', 'c'];

let joined = arr.join('-');

console.log(joined); // Output: "a-b-c"

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16. filter()

Creates a new array with elements that satisfy a condition.

let arr = [1, 2, 3, 4];

let even = arr.filter(num => num % 2 === 0);

console.log(even); // Output: [2, 4]

\*\*\*