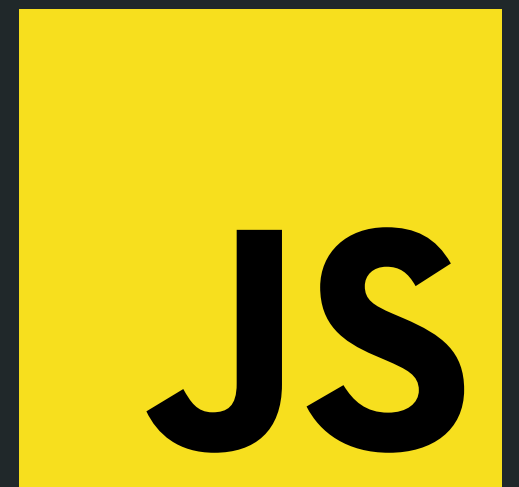


Array Methods...



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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
```



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']
```



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']
```




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']
```



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]
```



lastIndexOf() This method returns the last index at which a given element can be found in the array.



```
const numbers = [1, 2, 3, 4, 5, 3];  
const lastIndex = numbers.lastIndexOf(3);  
console.log(lastIndex); // Output: 5
```

indexOf(): This method returns the index of the first occurrence of a specified element in an array. If the element is not present, it returns -1.

```
const arr = [5, 10, 15, 20];  
const index = arr.indexOf(10);  
console.log(index); // 1
```



of(): This method creates a new array instance with a variable number of arguments, regardless of number or type of the arguments.



```
const arr = Array.of(1, 2, 3, "four", true);  
console.log(arr); // [1, 2, 3, "four", true]
```

every(): This method checks if all elements in an array pass a test (provided as a function). It returns true if all elements pass the test; otherwise, it returns false.



```
const arr = [2, 4, 6, 8];  
const isEven = (num) => num % 2 === 0;  
const result = arr.every(isEven);  
console.log(result); // true
```



slice(): This method returns a shallow copy of a portion of an array into a new array object selected from begin to end (end not included).



```
const arr = [1, 2, 3, 4, 5];  
const slicedArr = arr.slice(2, 4);  
console.log(slicedArr); // [3, 4]
```

flatMap(): This method maps each element using a mapping function, then flattens the result into a new array.



```
const arr = [1, 2, 3];  
const result = arr.flatMap(x => [x * 2])  
console.log(result); // [2, 4, 6]
```



findIndex(): This method returns the index of the first element in an array that passes a test (provided as a function). If no element passes the test, it returns -1.



```
const arr = [10, 20, 30, 40, 50];  
const greaterThan30 = (num) => num > 30;  
const index = arr.findIndex(greaterThan30)  
console.log(index); // 3
```

find(): This method returns the value of the first element in an array that passes a test (provided as a function). If no element passes the test, it returns undefined.



```
const arr = [10, 20, 30, 40, 50];  
const greaterThan30 = (num) => num > 30  
const result = arr.find(greaterThan30);  
console.log(result); // 40
```



includes(): This method determines whether an array includes a certain value among its entries, returning true or false as appropriate.



```
const arr = [10, 20, 30, 40, 50];  
const has20 = arr.includes(20);  
console.log(has20); // true
```

entries(): This method returns a new Array Iterator object that contains the key/value pairs for each index in the array.



```
const arr = ["a", "b", "c"];  
const iterator = arr.entries();  
console.log(iterator.next().value); // [0, "a"]  
console.log(iterator.next().value); // [1, "b"]  
console.log(iterator.next().value); // [2, "c"]
```



reduce(): This method applies a function to each element of an array and reduces the array to a single value.



```
const numbers = [10, 20, 30, 40];  
// accumulator: It is the value returned from the previous iteration of the function.  
// currentValue: It is the current element being processed in the array.  
const sum = numbers.reduce((accumulator, currentValue) => {  
  return accumulator + currentValue;  
});  
console.log(sum); // Output: 100
```

reduceRight(): This method is similar to the reduce() method. However, it iterates over the array elements from right to left instead of from left to right.



```
const numbers = [10, 20, 30, 40];  
const sum = numbers.reduceRight((accumulator, currentValue) => {  
  return accumulator + currentValue;  
});  
console.log(sum); // Output: 100
```



isArray(): This method determines whether the passed value is an array or not.



```
const fruits = ['apple', 'banana', 'mango'];  
console.log(Array.isArray(fruits)); // Output: true  
  
const number = 123;  
console.log(Array.isArray(number)); // Output: false
```

filter(): This method creates a new array with all elements that pass the test implemented by the provided function.



```
const numbers = [10, 20, 30, 40];  
const filteredNumbers = numbers.filter(number => {  
  return number > 20;  
});  
console.log(filteredNumbers); // Output: [30, 40]
```



keys(): This method returns an array containing the keys of the given object.



```
const myObj = { a: 1, b: 2, c: 3 };  
const keysArray = Object.keys(myObj);  
console.log(keysArray); // Output: ["a", "b", "c"]
```

map(): This method creates a new array with the results of calling a provided function on every element in the calling array.



```
const numbers = [1, 2, 3, 4, 5];  
const squaredNumbers = numbers.map((number) => {  
  return number * number;  
});  
console.log(squaredNumbers); // Output: [1, 4, 9, 16, 25]
```

