sourcemind

JAVASCRIPT BASICS

STRING ARRAY
METHODS
MAP, SET

String Methods

Method/Prop	Description
charAt()	Returns the character at a specified index (position)
charCodeAt()	Returns the Unicode of the character at a specified index
concat()	Returns two or more joined strings
endsWith()	Returns if a string ends with a specified value
includes()	Returns if a string contains a specified value
indexOf()	Returns the index (position) of the first occurrence of a value in a string
lastIndexOf()	Returns the index (position) of the last occurrence of a value in a string
length	Returns the length of a string
replace()	Searches a string for a value, or a regular expression, and returns a string where the values are replaced

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String Methods

slice()	Extracts a part of a string and returns a new string
split()	Splits a string into an array of substrings
startsWith()	Checks whether a string begins with specified characters
toLowerCase()	Returns a string converted to lowercase letters
toUpperCase()	Returns a string converted to uppercase letters
trim()	Returns a string with removed whitespaces

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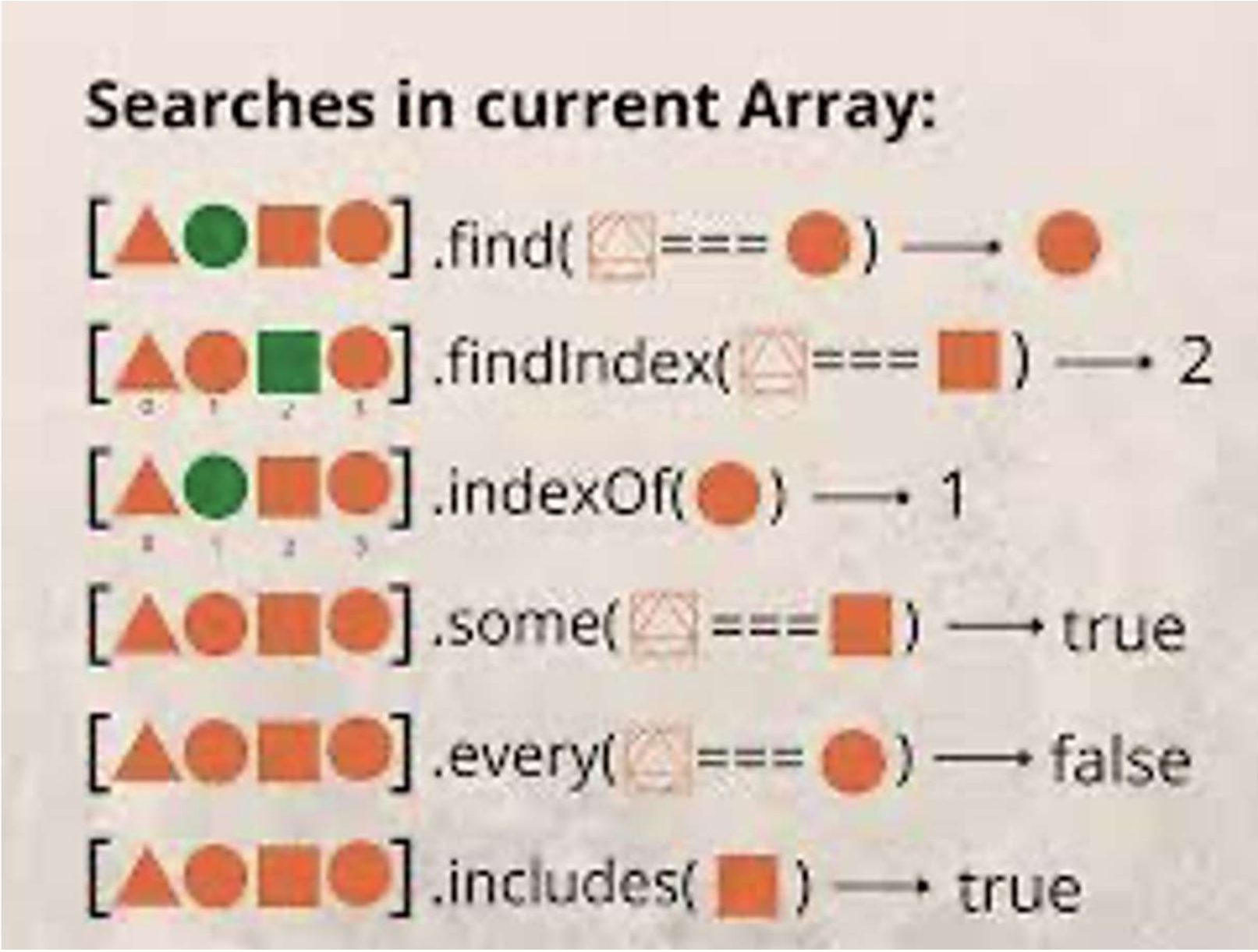
Array Methods



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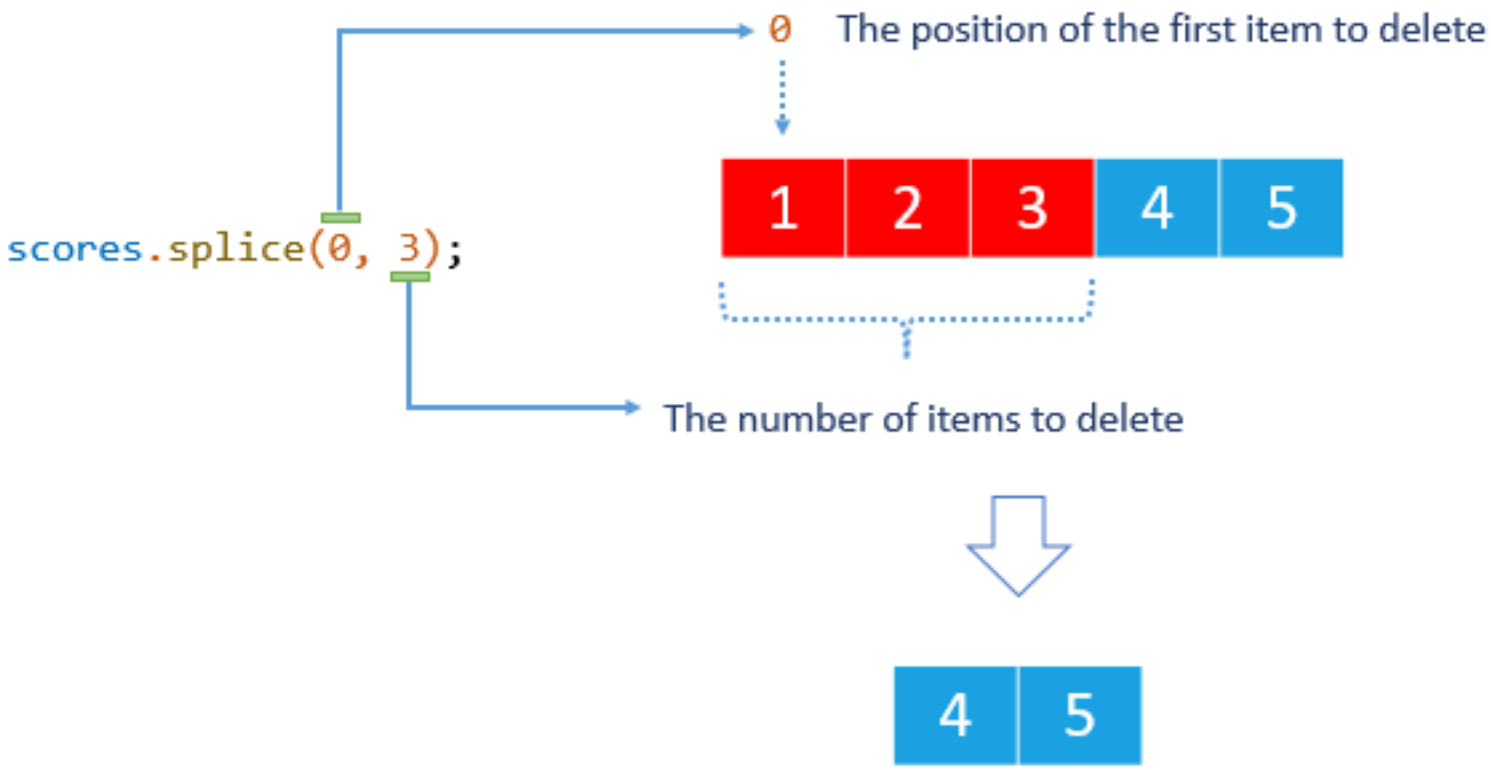


```
arr.splice(start[, deleteCount, elem1, ..., elemN])
```

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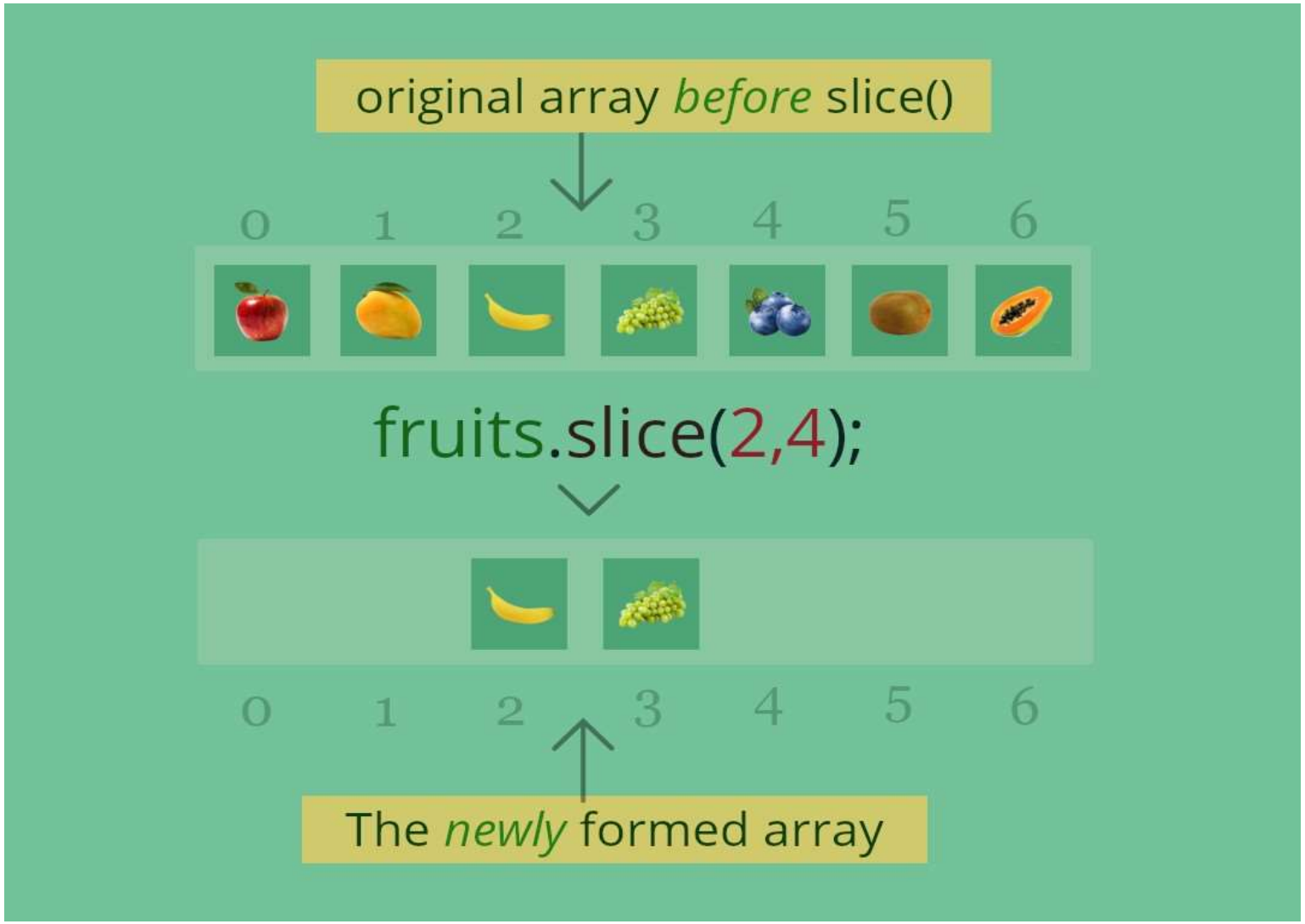
Slice



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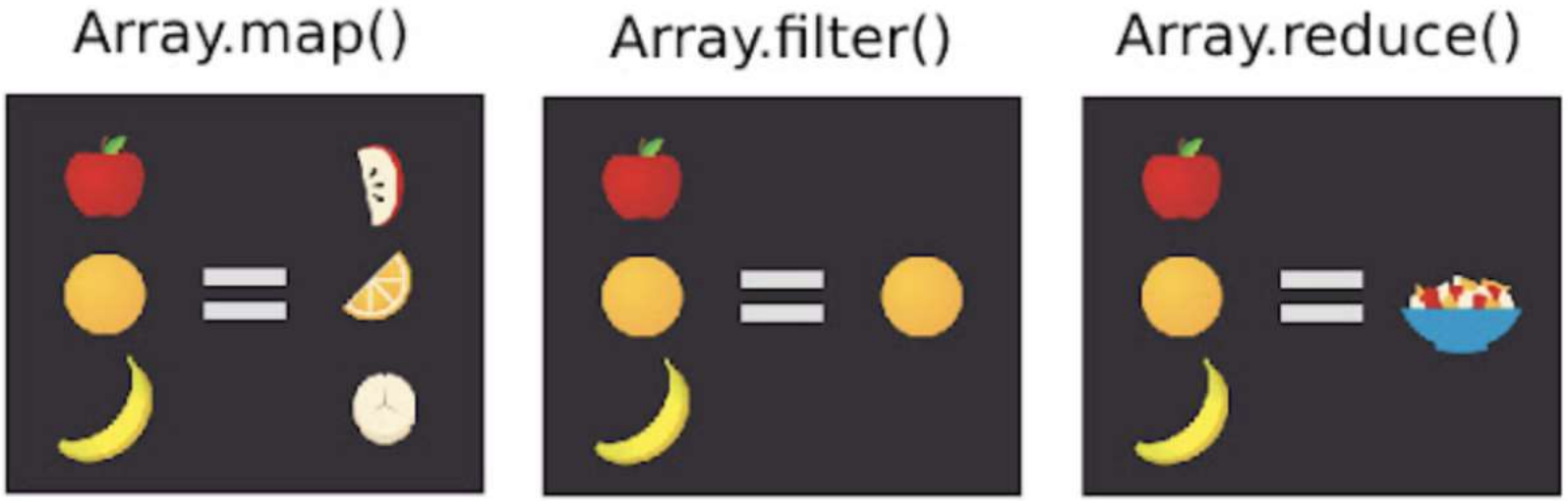
Reduce




```
const array1 = [1, 2, 3, 4];

// 0 + 1 + 2 + 3 + 4
const initialValue = 0;
const sumWithInitial = array1.reduce(
  (previousValue, currentValue) => previousValue + currentValue,
  initialValue
);

console.log(sumWithInitial);
// expected output: 10
```

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Sort

The `sort()` method sorts an array alphabetically:

```
const fruits = ["Banana", "Orange", "Apple", "Mango"];
fruits.sort();
```

By default, the `sort()` function sorts values as **strings**.

This works well for strings ("Apple" comes before "Banana").

However, if numbers are sorted as strings, "25" is bigger than "100", because "2" is bigger than "1".

Because of this, the `sort()` method will produce incorrect result when sorting numbers.

You can fix this by providing a **compare function**:

```
const points = [40, 100, 1, 5, 25, 10];
points.sort(function(a, b){return a - b});
```

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Tasks

1. Given array of strings. Create new array using `.filter()` which includes only strings which starts with “aa”;
2. Given array of numbers. Create a new array which every element is equal old array element * 2;
3. Create a function which return true if all elements in array are same.

```
function shoppingSpree(arr) {
   // your code here
}

var wishlist = [
    { title: "Tesla Model S", price: 90000 },
    { title: "4 carat diamond ring", price: 45000 },
    { title: "Fancy hacky Sack", price: 5 },
    { title: "Gold fidgit spinner", price: 2000 },
    { title: "A second Tesla Model S", price: 90000 }
];

console.log(shoppingSpree(wishlist)); // 227005
```

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Map

Method	Description
new Map()	Creates a new Map object
set()	Sets the value for a key in a Map
get()	Gets the value for a key in a Map
clear()	Removes all the elements from a Map
delete()	Removes a Map element specified by a key
has()	Returns true if a key exists in a Map
forEach()	Invokes a callback for each key/value pair in a Map
entries()	Returns an iterator object with the [key, value] pairs in a Map
keys()	Returns an iterator object with the keys in a Map
values()	Returns an iterator object of the values in a Map

Property	Description
size	Returns the number of Map elements

Set

Method	Description
new Set()	Creates a new Set
add()	Adds a new element to the Set
delete()	Removes an element from a Set
has()	Returns true if a value exists
clear()	Removes all elements from a Set
forEach()	Invokes a callback for each element
values()	Returns an Iterator with all the values in a Set
keys()	Same as values()
entries()	Returns an Iterator with the [value,value] pairs from a Set

Property	Description
size	Returns the number elements in a Set

Tasks

1. Creata a Dictionary class

1.1 Dictionarry must have has(key) set(key, value) remove(key) get(key) clear() size() keys() values().

2. Implement same Dictionary using Map();

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