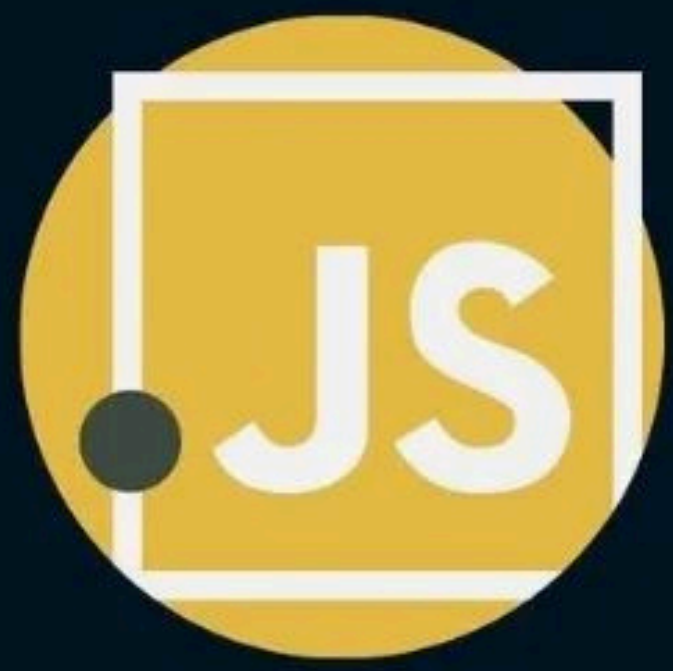
Sorting Arrays in Javascript

Introduction

In this tutorial we will cover sorting arrays with:

- strings
- numbers
- strings with numbers
- strings with long numbers
- objects



#1 Strings

By default the sort method organizes elements alphabetically (from A-Z).

Example:

```
const names = ['James', 'Anna', 'Adam', 'Colin', 'Rita']

const sortedNames = names.sort()

console.log(sortedNames)
// [ 'Adam', 'Anna', 'Colin', 'James', 'Rita' ]

const namesReversed = sortedNames.reverse()

console.log(namesReversed)
// [ 'Rita', 'James', 'Colin', 'Anna', 'Adam' ]
```

#2 Numbers

If we want use the sort method with numerical values - we need to pass to it a callback function which will handle comparison of values

Example:

```
const numbers = [10, 20, 5, 40, 100, 1]

const sortedNumbers = numbers.sort((a, b) => a - b)

console.log(sortedNumbers)
// [ 1, 5, 10, 20, 40, 100 ]
```

#3 Strings with numbers

If we have a string with a injected number (<10) for example at the end - we can slice it and turn into a number in order to sort all the array elements

Example:

```
const items = ['Item 3', 'Item 2', 'Item 5', 'Item 1', 'Item 4']

const sorted = items.sort((a, b) => {
    return +a.slice(-1) - +b.slice(-1)
})

console.log(sorted)
// [ 'Item 1', 'Item 2', 'Item 3', 'Item 4', 'Item 5' ]
```

#4 Strings with long numbers

If the numbers are bigger than 9 - we can use regular expressions to find them and sort the elements of the array based on their values

Example:

```
const r = /\d+/;
const itemsLong = [
    'Item 99',
    'Item 1001',
    'Item 5',
    'Item 30',
    'Item 465'
]

const sorted = itemsLong.sort((a, b) => {
    return a.match(r) - b.match(r)
})

console.log(sorted)
// [ 'Item 5', 'Item 30', 'Item 99', 'Item 465', 'Item 1001' ]
```

#5 Objects

Let's use the knowledge from previous slides to sort an array of objects based on a id values.

```
const objs = [
    { id: 7, name: 'John' },
    { id: 10, name: 'Grace' },
    { id: 4, name: 'Kim' },
    { id: 3, name: 'Jane' },
    { id: 9, name: 'Julie' },
]

const sorted = objs.sort((a, b) => {
    return a.id - b.id
})

console.log(sorted)
/*
  { id: 3, name: 'Jane' },
  { id: 4, name: 'Kim' },
  { id: 7, name: 'John' },
  { id: 9, name: 'Julie' },
  { id: 10, name: 'Grace' }
*/
```

FOLLOW