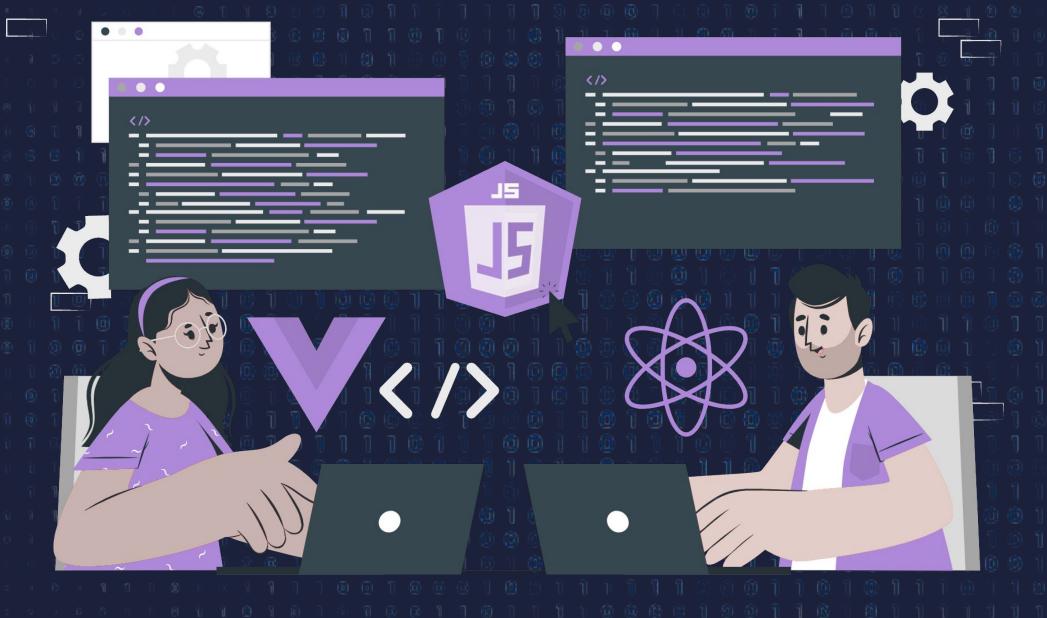


Reduce





Lecture CheckList

- 1. Introduction.
- 2. Features of reduce.
- 3. Syntax.
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Introduction.

As the name suggests the reduce method reduces the array values to a single value. The reduce() method runs a reducer function on each array item and returns a single output result. The input array can have numbers, strings, or an object.



Features of reduce.

- 1. The reducer function passed will be applied to all the items in the array.
- 2. The result will be a single value accumulated on passing all the array items to the reducer function.
- 3. The reduce method is not valid for empty arrays.
- 4. The reduce method doesn't change the original array on which the reduce method is applied.



Syntax

```
// Syntax
array.reduce(function(accumulator, currentValue, currentIndex, array), initialValue)
```

The parameters accepted:

- 1. accumulator: It accumulates the initial value and reducer function's return values.
- 2. currentValue: It is a required parameter and is used to specify the value of the current element.
- 3. currentIndex: It is an optional parameter and is used to specify the array index of the current element.
- 4. array: It is an optional parameter and is used to specify the array the current element belongs to.
- 5. initialValue: It is used to specify the value to be passed to the function as the initial value.



Implementation

Let's look at the implementation of reduce method. The simplest example to demonstrate the use of reduce function is by finding the sum of all elements in an array.



Implementation

```
// Find the sum of all elements in an array?

// Given Array

let arr = [1, 2, 44, 67, 89];

// Apply reduce method

let result = arr.reduce((acc, curr) => acc + curr, 0);

// Print the result to console.
console.log(result);
```



#