filter( )

IN JAVASCRIPT

Introduction

The filter() method returns a new array with all the elements that satisfies the condition that is passed inside the callback of filter() method.

The array elements that does not satisfy the condition inside callback of filter() are skipped and not included inside the new array.

filter() has three main arguments

- element/item - current array element the callback is iterating over

- index - index of the current element/item

- array - the array on which the filter method is being performed.

- These arguments are passed inside the callback function of filter().

item,index,array

```javascript
let array = [23, 4, 5, 60, 80];

let filterArray = array.filter((item, index, array) =>
 {
  // first iteration output
  console.log(item); // 23
  console.log(index); // 0
  console.log(array); // [23, 4, 5, 60, 80]
});
```

Example 1

```javascript
let array = [23, 4, 5, 60, 80];

// returns an array with values more than 30
let moreThanThirty = array.filter((item)=> {
  return item > 30;
})

console.log(moreThanThirty) // [ 60, 80 ]
```

Example 2

```javascript
let array = [23, 4, 5, 60, 80];

// finding all odd numbers
let isOddArray = array.filter((item)=> {
  return item % 2 !=0;
})

console.log(isOddArray) // [ 23, 5 ]
```

Example 3

```javascript
let array = [
  { club: "Barcelona", country: "Spain" },
  { club: "Manchester United", country: "England" },
  { club: "Real Madrid", country: "Spain" },
  { club: "Liverpool", country: "England" },
];

// finding clubs from England
let clubsfromEngland = array.filter((item) => {
  return item.country === "England"
});

console.log(clubsfromEngland);
/*
[
  { club: 'Manchester United', country: 'England' },
  { club: 'Liverpool', country: 'England' }
]
*/
```