

Problem List

DescriptionEditorialSolutionsSubmissions

2804. Array Prototype ForEachPremium

Solved

Easy

Write your version of method `forEach` that enhances all arrays such that you can call the `array.forEach(callback, context)` method on any array and it will execute `callback` on each element of the array. Method `forEach` should not return anything.

`callback` accepts the following arguments:

- `currentValue` - represents the current element being processed in the array. It is the value of the element in the current iteration.
- `index` - represents the index of the current element being processed in the array.
- `array` - represents the array itself, allowing access to the entire array within the callback function.

The `context` is the object that should be passed as the function context parameter to the `callback` function, ensuring that the `this` keyword within the `callback` function refers to this `context` object.

Try to implement it without using the built-in array methods.

Example 1:

Input:

```
arr = [1,2,3],
callback = (val, i, arr) => arr[i] = val * 2,
context = {"context":true}
```

Output: [2,4,6]

Explanation:

```
arr.forEach(callback, context)
console.log(arr) // [2,4,6]
```

The callback is executed on each element of the array.

Example 2:

Input:

```
arr = [true, true, false, false],
callback = (val, i, arr) => arr[i] = this,
context = {"context": false}
```

Output: [{"context":false}, {"context":false}, {"context":false}, {"context":false}]

Explanation:

```
arr.forEach(callback, context)
console.log(arr) // [{"context":false}, {"context":false}, {"context":false}, {"context":false}]
```

The callback is executed on each element of the array with the right context.

Example 3:

Input:

```
arr = [true, true, false, false],
callback = (val, i, arr) => arr[i] = !val,
context = {"context": 5}
```

Output: [false,false,true,true]

Constraints:

- `arr` is a valid JSON array
- `context` is a valid JSON object
- `fn` is a function
- $0 \leq arr.length \leq 10^5$

Seen this question in a real interview before? 1/5

Yes

No

Accepted 732 | Submissions 824 | Acceptance Rate 88.8%

Discussion (0)

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TypeScriptAuto

```
1 type JSONValue = null | boolean | number | string | JSONValue[] | { [key: string]: JSONValue };
2 type Callback = (currentValue: JSONValue, index: number, array: JSONValue[]) => any
3 type Context = Record<string, JSONValue>
4
5 Array.prototype.forEach = function(callback: Callback, context: Context): void {
6
7     for (let i = 0; i < this.length; i++) {
8         callback.call(context, this[i], i, this);
9     }
10
11 }
12
13 /**
14  * const arr = [1,2,3];
15  * const callback = (val, i, arr) => arr[i] = val * 2;
16  * const context = {"context":true};
17  *
18  * arr.forEach(callback, context)
```

Ln 9, Col 6

Testcase

Test Result

Case 1

Case 2

Case 3

+

[1,2,3]

function(val, i, arr){ arr[i] = val * 2 }

{"context": true}

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