

Problem List

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2797. Partial Function with Placeholders Premium

Easy

Solved

Given a function `fn` and an array `args`, return a function `partialFn`.

Placeholders `"_"` in the `args` should be replaced with values from `restArgs` starting from index `0`. Any remaining values in the `restArgs` should be added at the end of the `args`.

`partialFn` should return a result of `fn`. `fn` should be called with the elements of the modified `args` passed as separate arguments.

Example 1:

Input: `fn = (...args) => args, args = [2,4,6], restArgs = [8,10]`

Output: `[2,4,6,8,10]`

Explanation:

```
const partialFn = partial(fn, args)
const result = partialFn(...restArgs)
console.log(result) // [2,4,6,8,10]
```

There are no placeholders `"_"` in `args` therefore `restArgs` is just added at the end of `args`. Then the elements of the `args` are passed as separate arguments to `fn`, which returns passed arguments as an array.

Example 2:

Input: `fn = (...args) => args, args = [1,2,"_",4,"_",6], restArgs = [3,5]`

Output: `[1,2,3,4,5,6]`

Explanation:

```
const partialFn = partial(fn, args)
const result = partialFn(...restArgs)
console.log(result) // [1,2,3,4,5,6]
```

Placeholders `"_"` are replaced with values from the `restArgs`. Then the elements of the `args` are passed as separate arguments to `fn`, which returns passed arguments as an array.

Example 3:

Input: `fn = (a, b, c) => b + a - c, args = ["_", 5], restArgs = [5, 20]`

Output: `-10`

Explanation:

```
const partialFn = partial(fn, args)
const result = partialFn(...restArgs)
console.log(result) // -10
```

Placeholder `"_"` is replaced with `5` and `20` is added at the end of `args`. Then the elements of the `args` are passed as separate arguments to `fn`, which returns `-10` (`5 + 5 - 20`).

Constraints:

- `fn` is a function
- `args` and `restArgs` are valid JSON arrays
- $1 \leq \text{args.length} \leq 5 \times 10^4$
- $1 \leq \text{restArgs.length} \leq 5 \times 10^4$
- $0 \leq \text{number of placeholders} \leq \text{restArgs.length}$

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

Yes

No

Accepted 844 | Submissions 920 | Acceptance Rate 91.7%

Discussion (0)

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TypeScript • Auto

```
1 type JSONValue = null | boolean | number | string | JSONValue[] | { [key: string]: JSONValue };
2 type Fn = (...args: JSONValue[]) => JSONValue
3
4 function partial(fn: Fn, args: JSONValue[]): Fn {
5
6     return function(...restArgs) {
7
8         const currentRestArgs = [...restArgs];
9         const appliedArgs = args.map((arg) => {
10             if (arg === '_' && currentRestArgs.length) {
11                 return currentRestArgs.shift();
12             }
13             return arg;
14         });
15         return fn(...appliedArgs, ...currentRestArgs);
16
17     }
18
19 };
```

Ln 9, Col 48

Testcase > Test Result

Case 1 Case 2 Case 3 +

(...args) => args

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