

Problem 2797: Partial Function with Placeholders

Problem Information

Difficulty: [Easy](#)

Acceptance Rate: 89.50%

Paid Only: Yes

Problem Description

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 * $1 \leq \text{args.length} \leq 5$ * $10^4 \leq \text{restArgs.length} \leq 5 \cdot 10^4$ * $0 \leq \text{number of placeholders} \leq \text{restArgs.length}$

Code Snippets

JavaScript:

```
/**
 * @param {Function} fn
 * @param {Array} args
 * @return {Function}
 */
var partial = function(fn, args) {

  return function(...restArgs) {

  }

};
```

TypeScript:

```
type JSONValue = null | boolean | number | string | JSONValue[] | { [key: string]: JSONValue };
type Fn = (...args: JSONValue[]) => JSONValue

function partial(fn: Fn, args: JSONValue[]): Fn {

  return function(...restArgs) {

  }

};
```