2632. Curry

Medium   🏢 Companies   💡 Hint

Given a function `fn`, return a **curried** version of that function.

A **curried** function is a function that accepts fewer or an equal number of parameters as the original function and returns either another **curried** function or the same value the original function would have returned.

In practical terms, if you called the original function like `sum(1,2,3)`, you would call the **curried** version like `csum(1)(2)(3)`, `csum(1)(2,3)`, `csum(1,2)(3)`, or `csum(1,2,3)`. All these methods of calling the **curried** function should return the same value as the original.

Example 1:

```
Input:
fn = function sum(a, b, c) { return a + b + c; }
inputs = [[1],[2],[3]]
Output: 6
Explanation:
The code being executed is:
const curriedSum = curry(fn);
curriedSum(1)(2)(3) === 6;
curriedSum(1)(2)(3) should return the same value as sum(1, 2, 3).
```

Example 2:

```
Input:
fn = function sum(a, b, c) { return a + b + c; }
inputs = [[1,2],[3]]
Output: 6
Explanation:
curriedSum(1, 2)(3) should return the same value as sum(1, 2, 3).
```

Example 3:

```
Input:
fn = function sum(a, b, c) { return a + b + c; }
inputs = [[],[],[1,2,3]]
Output: 6
Explanation:
You should be able to pass the parameters in any way, including all at once or none at all.
curriedSum()()(1, 2, 3) should return the same value as sum(1, 2, 3).
```

Example 4:

```
Input:
fn = function life() { return 42; }
inputs = [[]]
Output: 42
Explanation:
currying a function that accepts zero parameters should effectively do nothing.
curriedLife() === 42
```

Constraints:

- `1 <= inputs.length <= 1000`
- `0 <= inputs[i][j] <= 10^5`
- `0 <= fn.length <= 1000`
- `inputs.flat().length == fn.length`
- function parameters explicitly defined
- If `fn.length > 0` then the last array in `inputs` is not empty
- If `fn.length === 0` then `inputs.length === 1`

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

Yes   No

Accepted **16.9K** | Submissions **19K** | Acceptance Rate **89.2%**

🏢 Companies   ⌃

6 months ago

Amazon 4   Yandex 4

💡 Hint 1   ⌃

You can access the count of parameters expected to passed into a function with "fn.length".

💡 Hint 2   ⌃

You can use recursion. If the length of params passed is equal to fn.length, you are done. Just pass those params to fn. Otherwise return a function that is includes the previous passed params plus the new params. The new function should contain a recursive call to curry().

⌕ Similar Questions   ⌃

Memoize   Medium

Memoize II   Hard

💬 Discussion (12)   ⌄