

Problem 2821: Delay the Resolution of Each Promise

Problem Information

Difficulty: **Medium**

Acceptance Rate: 74.03%

Paid Only: Yes

Problem Description

Given an array `functions`` and a number `ms``, return a new array of functions.

* `functions`` is an array of functions that return promises. * `ms`` represents the delay duration in milliseconds. It determines the amount of time to wait before resolving or rejecting each promise in the new array.

Each function in the new array should return a promise that resolves or rejects after an additional delay of `ms`` milliseconds, preserving the order of the original `functions`` array.

The `delayAll`` function should ensure that each promise from `functions`` is executed with a delay, forming the new array of functions returning delayed promises.

Example 1:

Input: `functions = [() => new Promise((resolve) => setTimeout(resolve, 30))], ms = 50`

Output: `[80]` **Explanation:** The promise from the array would have resolved after 30 ms, but it was delayed by 50 ms, thus $30\text{ ms} + 50\text{ ms} = 80\text{ ms}$.

Example 2:

Input: `functions = [() => new Promise((resolve) => setTimeout(resolve, 50)), () => new Promise((resolve) => setTimeout(resolve, 80))], ms = 70` **Output:** `[120,150]`

Explanation: The promises from the array would have resolved after 50 ms and 80 ms, but they were delayed by 70 ms, thus $50\text{ ms} + 70\text{ ms} = 120\text{ ms}$ and $80\text{ ms} + 70\text{ ms} = 150\text{ ms}$.

Example 3:

```
**Input:** functions = [ () => new Promise((resolve, reject) => setTimeout(reject, 20)), () =>
new Promise((resolve, reject) => setTimeout(reject, 100)) ], ms = 30 **Output:**[50,130]
```

****Constraints:****

* `functions` is an array of functions that return promises * `10 <= ms <= 500` * `1 <= functions.length <= 10`

Code Snippets

JavaScript:

```
/**
 * @param {Array<Function>} functions
 * @param {number} ms
 * @return {Array<Function>}
 */
var delayAll = function(functions, ms) {

};
```

TypeScript:

```
type Fn = () => Promise<any>

function delayAll(functions: Fn[], ms: number): Fn[] {

};
```