## 75 Days of Code

**Day 59** 

Problem no: Leetcode 1137

**Problem Title: N-th Tribonacci Number** 

**Problem type: DP** 

.

The Tribonacci sequence Tn is defined as follows:

$$T0 = 0$$
,  $T1 = 1$ ,  $T2 = 1$ , and  $Tn+3 = Tn + Tn+1 + Tn+2$  for  $n >= 0$ .

Given n, return the value of Tn.

## **Example 1:**

Input: n = 4

Output: 4

**Explanation:** 

 $T_3 = 0 + 1 + 1 = 2$ 

 $T_4 = 1 + 1 + 2 = 4$ 

Example 2:

**Input:** n = 25

Output: 1389537

```
// Constraints:

// 0 <= n <= 37

// The answer is guaranteed to fit within a 32-bit integer, ie. answer <= 2^31 - 1.

type MapType = Record<number,number>;
    const map :MapType ={0:0,1:1,2:1};

    function tribonacci(n: number): number {
        map[n]??=tribonacci(n-1)+tribonacci(n-2)+tribonacci(n-3);
        return map[n];
    };
```

## igotimes Accepted

**P** Editorial

Runtime

Details

**53** ms

Beats 60.07% of users with TypeScript

Memory

**42.50** MB

Beats 69.79% of users with TypeScript