1511. Count Number of Teams

Difficulty : Medium

https://leetcode.com/problems/count-number-of-teams

There are `n` soldiers standing in a line. Each soldier is assigned a **unique** `rating` value.

You have to form a team of 3 soldiers amongst them under the following rules:

- Choose 3 soldiers with index (`i`, `j`, `k`) with rating (`rating[i]`, `rating[j]`, `rating[k]`).
- A team is valid if: (`rating[i] < rating[j] < rating[k]`) or (`rating[i] > rating[j] > rating[k]`) where (`0 <= i < j < k < n`).

Return the number of teams you can form given the conditions. (soldiers can be part of multiple teams).

Example 1:

```
Input: rating = [2,5,3,4,1]
Output: 3
Explanation: We can form three teams given the conditions. (2,3,4), (5,4,1), (5,3,1).
```

Example 2:

```
Input: rating = [2,1,3]
Output: 0
Explanation: We can't form any team given the conditions.
```

Example 3:

```
Input: rating = [1,2,3,4]
Output: 4
```

Constraints:

- `n == rating.length`
- `3 <= n <= 1000`
- `1 <= rating[i] <= 10^5`
- All the integers in `rating` are **unique**.