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281. Zigzag Iterator

Medium   👍 607   👎 35   ♡ Add to List   ⬆ Share

Given two vectors of integers `v1` and `v2`, implement an iterator to return their elements alternately.

Implement the `ZigzagIterator` class:

- `ZigzagIterator(List<int> v1, List<int> v2)` initializes the object with the two vectors `v1` and `v2`
- `boolean hasNext()` returns `true` if the iterator still has elements, and `false` otherwise.
- `int next()` returns the current element of the iterator and moves the iterator to the next element.

Example 1:

```
Input: v1 = [1,2], v2 = [3,4,5,6]
Output: [1,3,2,4,5,6]
Explanation: By calling next repeatedly until hasNext returns false, the order of elements
next should be: [1,3,2,4,5,6].
```

Example 2:

```
Input: v1 = [1], v2 = []
Output: [1]
```

Example 3:

```
Input: v1 = [], v2 = [1]
Output: [1]
```

Constraints:

- `0 <= v1.length, v2.length <= 1000`
- `1 <= v1.length + v2.length <= 2000`
- $-2^{31} <= $ `v1[i], v2[i]` $ <= 2^{31} - 1$

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