251. Flatten 2D Vector

Medium 341 186 Add to List Share

Design and implement an iterator to flatten a 2d vector. It should support the following operations: `next` and `hasNext`.

Example:

```
Vector2D iterator = new Vector2D([[1,2],[3],[4]]);

iterator.next(); // return 1
iterator.next(); // return 2
iterator.next(); // return 3
iterator.hasNext(); // return true
iterator.hasNext(); // return true
iterator.next(); // return 4
iterator.hasNext(); // return false
```

Notes:

1. Please remember to **RESET** your class variables declared in Vector2D, as static/class variables are **persisted across multiple test cases**. Please see here for more details.
2. You may assume that `next()` call will always be valid, that is, there will be at least a next element in the 2d vector when `next()` is called.

Follow up:

As an added challenge, try to code it using only iterators in C++ or iterators in Java.

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Python

Autocomplete

```python
class Vector2D(object):

    def __init__(self, v):
        """
        :type v: List[List[int]]
        """


    def next(self):
        """
        :rtype: int
        """


    def hasNext(self):
        """
        :rtype: bool
        """


# Your Vector2D object will be instantiated and called as such:
# obj = Vector2D(v)
# param_1 = obj.next()
# param_2 = obj.hasNext()
```

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