851. Loud and Rich

Description

There is a group of n people labeled from 0 to n - 1 where each person has a different amount of money and a different level of quietness.

You are given an array richer where richer[i] = [a i, b i] indicates that [a i] has more money than [b i] and an integer array quiet where quiet[i] is the quietness of the [i th] person. All the given data in richer are logically correct (i.e., the data will not lead you to a situation where x is richer than y and y is richer than x at the same time).

Return an integer array answer where answer[x] = y if y is the least quiet person (that is, the person y with the smallest value of quiet[y]) among all people who definitely have equal to or more money than the person x.

Example 1:

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Input: richer = [[1,0],[2,1],[3,1],[3,7],[4,3],[5,3],[6,3]], quiet = [3,2,5,4,6,1,7,0]
Output: [5,5,2,5,4,5,6,7]
Explanation:
answer[0] = 5.
Person 5 has more money than 3, which has more money than 1, which has more money than 0.
The only person who is quieter (has lower quiet[x]) is person 7, but it is not clear if they have more money than person 0.
answer[7] = 7.
Among all people that definitely have equal to or more money than person 7 (which could be persons 3, 4, 5, 6, or 7), the person who is the quietest (has lower quiet[x]) is person 7.
The other answers can be filled out with similar reasoning.
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Example 2:

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Input: richer = [], quiet = [0]
Output: [0]
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Constraints:

- n == quiet.length
- 1 <= n <= 500
- 0 <= quiet[i] < n
- All the values of quiet are unique.
- 0 <= richer.length <= n * (n 1) / 2
- $0 \ll a_i, b_i \ll n$
- $a_i != b_i$
- All the pairs of richer are unique.
- The observations in richer are all logically consistent.