Problem 1282: Group the People Given the Group Size They Belong To

Problem Information

Difficulty: Medium
Acceptance Rate: 87.47%
Paid Only: No
Tags: Array, Hash Table, Greedy

Problem Description

There are `n` people that are split into some unknown number of groups. Each person is labeled with a **unique ID** from `0` to `n - 1`.

You are given an integer array `groupSizes`, where `groupSizes[i]` is the size of the group that person `i` is in. For example, if `groupSizes[1] = 3`, then person `1` must be in a group of size `3`.

Return _a list of groups such that each person `i` is in a group of size `groupSizes[i]`_.

Each person should appear in **exactly one group** , and every person must be in a group. If there are multiple answers, **return any of them**. It is **guaranteed** that there will be **at least one** valid solution for the given input.

Example 1:

Input: groupSizes = [3,3,3,3,3,1,3] **Output:** [[5],[0,1,2],[3,4,6]] **Explanation:** The first group is [5]. The size is 1, and groupSizes[5] = 1. The second group is [0,1,2]. The size is 3, and groupSizes[0] = groupSizes[1] = groupSizes[2] = 3. The third group is [3,4,6]. The size is 3, and groupSizes[3] = groupSizes[4] = groupSizes[6] = 3. Other possible solutions are [[2,1,6],[5],[0,4,3]] and [[5],[0,6,2],[4,3,1]].

Example 2:

Input: groupSizes = [2,1,3,3,3,2] **Output:** [[1],[0,5],[2,3,4]]

Constraints:

* `groupSizes.length == n` * `1 <= n <= 500` * `1 <= groupSizes[i] <= n`

Code Snippets

C++:

```
class Solution {
public:
vector<vector<int>> groupThePeople(vector<int>& groupSizes) {

}
};
```

Java:

```
class Solution {
public List<List<Integer>> groupThePeople(int[] groupSizes) {

}
}
```

Python3:

```
class Solution:
def groupThePeople(self, groupSizes: List[int]) -> List[List[int]]:
```