3143. Longest Unequal Adjacent Groups Subsequence I

Difficulty : Easy

https://leetcode.com/problems/longest-unequal-adjacent-groups-subsequence-i

You are given a string array `words` and a **binary** array `groups` both of length `n`, where `words[i]` is associated with `groups[i]`.

Your task is to select the **longest alternating** subsequence from `words`. A subsequence of `words` is alternating if for any two consecutive strings in the sequence, their corresponding elements in the binary array `groups` differ. Essentially, you are to choose strings such that adjacent elements have non-matching corresponding bits in the `groups` array.

Formally, you need to find the longest subsequence of an array of indices `[0, 1, ..., n - 1]` denoted as `[i0, i1, ..., ik-1]`, such that `groups[ij] != groups[ij+1]` for each `0 <= j < k - 1` and then find the words corresponding to these indices.

Return *the selected subsequence. If there are multiple answers, return* ***any*** *of them.*

Note: The elements in `words` are distinct.

Example 1:

Input: words = ["e","a","b"], groups = [0,0,1]

Output: ["e","b"]

Explanation: A subsequence that can be selected is `["e","b"]` because `groups[0] != groups[2]`. Another subsequence that can be selected is `["a","b"]` because `groups[1] != groups[2]`. It can be demonstrated that the length of the longest subsequence of indices that satisfies the condition is `2`.

Example 2:

Input: words = ["a","b","c","d"], groups = [1,0,1,1]

Output: ["a","b","c"]

Explanation: A subsequence that can be selected is `["a","b","c"]` because `groups[0] != groups[1]` and `groups[1] != groups[2]`. Another subsequence that can be selected is `["a","b","d"]` because `groups[0] != groups[1]` and `groups[1] != groups[3]`. It can be shown that the length of the longest subsequence of indices that satisfies the condition is `3`.

Constraints:

- `1 <= n == words.length == groups.length <= 100`
- `1 <= words[i].length <= 10`
- `groups[i]` is either `0` or `1`.
- `words` consists of **distinct** strings.
- `words[i]` consists of lowercase English letters.