# 1042. Flower Planting With No Adjacent

Solved ●

Medium Topics Companies Hint

You have `n` gardens, labeled from `1` to `n`, and an array `paths` where `paths[i] = [x_i, y_i]` describes a bidirectional path between garden `x_i` to garden `y_i`. In each garden, you want to plant one of 4 types of flowers.

All gardens have **at most 3** paths coming into or leaving it.

Your task is to choose a flower type for each garden such that, for any two gardens connected by a path, they have different types of flowers.

Return ***any*** *such a choice as an array* `answer`*, where* `answer[i]` *is the type of flower planted in the* `(i+1)^th` *garden. The flower types are denoted* `1`*,* `2`*,* `3`*, or* `4`*. It is guaranteed an answer exists.*

**Example 1:**

> **Input:** n = 3, paths = [[1,2],[2,3],[3,1]]
> **Output:** [1,2,3]
> **Explanation:**
> Gardens 1 and 2 have different types.
> Gardens 2 and 3 have different types.
> Gardens 3 and 1 have different types.
> Hence, [1,2,3] is a valid answer. Other valid answers include [1,2,4], [1,4,2], and [3,2,1].

**Example 2:**

> **Input:** n = 4, paths = [[1,2],[3,4]]
> **Output:** [1,2,1,2]

**Example 3:**

> **Input:** n = 4, paths = [[1,2],[2,3],[3,4],[4,1],[1,3],[2,4]]
> **Output:** [1,2,3,4]

**Constraints:**

- `1 <= n <= 10^4`
- `0 <= paths.length <= 2 * 10^4`
- `paths[i].length == 2`
- `1 <= x_i, y_i <= n`
- `x_i != y_i`
- Every garden has **at most 3** paths coming into or leaving it.

Seen this question in a real interview before? 1/5

Yes No

Accepted 84.1K Submissions 162.6K Acceptance Rate 51.7%

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Hint 1

Discussion (13)