265. Paint House II Premium

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There are a row of `n` houses, each house can be painted with one of the `k` colors. The cost of painting each house with a certain color is different. You have to paint all the houses such that no two adjacent houses have the same color.

The cost of painting each house with a certain color is represented by an `n x k` cost matrix costs.

- For example, `costs[0][0]` is the cost of painting house `0` with color `0`; `costs[1][2]` is the cost of painting house `1` with color `2`, and so on...

Return *the minimum cost to paint all houses.*

Example 1:

> **Input:** costs = [[1,5,3],[2,9,4]]
> **Output:** 5
> **Explanation:**
> Paint house 0 into color 0, paint house 1 into color 2. Minimum cost: 1 + 4 = 5;
> Or paint house 0 into color 2, paint house 1 into color 0. Minimum cost: 3 + 2 = 5.

Example 2:

> **Input:** costs = [[1,3],[2,4]]
> **Output:** 5

Constraints:

- `costs.length == n`
- `costs[i].length == k`
- `1 <= n <= 100`
- `2 <= k <= 20`
- `1 <= costs[i][j] <= 20`

Follow up: Could you solve it in `O(nk)` runtime?

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

Yes No

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