**Paint House II:**

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 a *n* x *k* cost matrix. 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... Find the minimum cost to paint all houses.

**Note:**  
All costs are positive integers.

**Example:**

**Input:** [[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.

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