

Description

Solution

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i Java

## 1473. Paint House III

Hard

844

67

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There is a row of  $m$  houses in a small city, each house must be painted with one of the  $n$  colors (labeled from 1 to  $n$ ), some houses that have been painted last summer should not be painted again.

A neighborhood is a maximal group of continuous houses that are painted with the same color.

- For example: `houses = [1,2,2,3,3,2,1,1]` contains 5 neighborhoods `[[{1}, {2,2}, {3,3}, {2}, {1,1}]]`.

Given an array `houses`, an  $m \times n$  matrix `cost` and an integer `target` where:

- `houses[i]` : is the color of the house  $i$ , and 0 if the house is not painted yet.
- `cost[i][j]` : is the cost of paint the house  $i$  with the color  $j + 1$ .

Return the minimum cost of painting all the remaining houses in such a way that there are exactly `target` neighborhoods. If it is not possible, return -1.

## Example 1:

**Input:** `houses = [0,0,0,0,0]`, `cost = [[1,10],[10,1],[10,1],[1,10],[5,1]]`, `m = 5`, `n = 2`, `target = 3`

**Output:** 9

**Explanation:** Paint houses of this way `[1,2,2,1,1]`

This array contains `target = 3` neighborhoods, `[[{1}, {2,2}, {1,1}]]`.

Cost of paint all houses  $(1 + 1 + 1 + 1 + 5) = 9$ .

## Example 2:

**Input:** `houses = [0,2,1,2,0]`, `cost = [[1,10],[10,1],[10,1],[1,10],[5,1]]`, `m = 5`, `n = 2`, `target = 3`

**Output:** 11

**Explanation:** Some houses are already painted, Paint the houses of this way `[2,2,1,2,2]`

This array contains `target = 3` neighborhoods, `[[{2,2}, {1}, {2,2}]]`.

Cost of paint the first and last house  $(10 + 1) = 11$ .

```

i      {}
9      if(
10
    target? 0
11      }
12      if(
13
14      }
15      if(
16
17      c++){
18      nbr;
19
20      nbr + 1;
21
22      Math.min(mi
dfs(houses,
i+1, new_nt
23
24
25      }
26      els
27
28      left){
29
30      1;
31
    cost, m, n,
new_nbr, hc
32      }
33      }
34  }
```

Testcase Run Code Re

Accepted Runti

Your input [0, [1

Output 9

Expected 9

Console Use

Problems

Pick One

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Next &gt;

Run Code ^