1857. Largest Color Value in a Directed Graph

Hard Topics Companies Hint

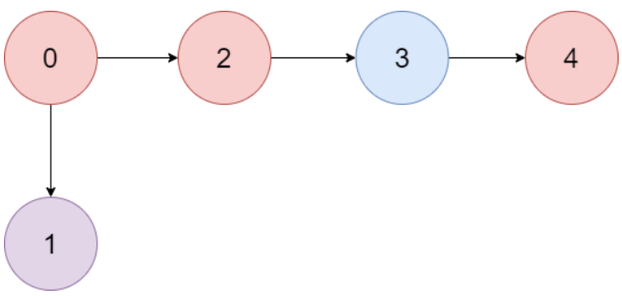
There is a **directed graph** of `n` colored nodes and `m` edges. The nodes are numbered from `0` to `n - 1`.

You are given a string `colors` where `colors[i]` is a lowercase English letter representing the **color** of the i^{th} node in this graph (**0-inde**

A valid **path** in the graph is a sequence of nodes $x_1 \rightarrow x_2 \rightarrow x_3 \rightarrow \ldots \rightarrow x_k$ such that there is a directed edge from x_i to x_{i+1} for eve

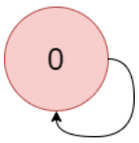
Return *the **largest color value** of any valid path in the given graph, or* `-1` *if the graph contains a cycle.*

Example 1:




```
Input: colors = "abaca", edges = [[0,1],[0,2],[2,3],[3,4]]
Output: 3
Explanation: The path 0 -> 2 -> 3 -> 4 contains 3 nodes that are colored "a" (red in the above image).
```

Example 2:




```
Input: colors = "a", edges = [[0,0]]
Output: -1
Explanation: There is a cycle from 0 to 0.
```

Constraints:

- `n == colors.length`
- `m == edges.length`
- `1 <= n <= 10^5`
- `0 <= m <= 10^5`
- `colors` consists of lowercase English letters.
- `0 <= a_j, b_j < n`

Seen this question in a real interview before? 1/4

Yes No

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Hint 1