3493. Properties Graph

Solved ●

Medium Topics Hint

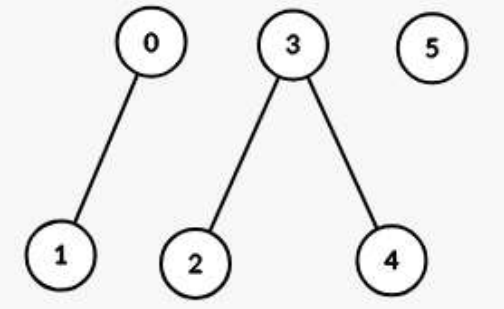
You are given a 2D integer array `properties` having dimensions `n x m` and an integer `k`.

Define a function `intersect(a, b)` that returns the **number of distinct integers** common to both arrays `a` and `b`.

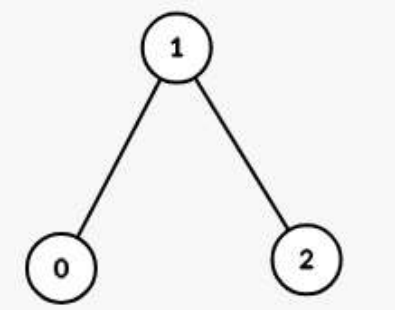
Construct an **undirected** graph where each index `i` corresponds to `properties[i]`. There is an edge between node `i` and node `j` if and only if `intersect(properties[i], properties[j]) >= k`, where `i` and `j` are in the range `[0, n - 1]` and `i != j`.

Return the number of **connected components** in the resulting graph.

Example 1:

> **Input:** properties = [[1,2],[1,1],[3,4],[4,5],[5,6],[7,7]], k = 1
>
> **Output:** 3
>
> **Explanation:**
>
> The graph formed has 3 connected components:
>
> 
>

Example 2:

> **Input:** properties = [[1,2,3],[2,3,4],[4,3,5]], k = 2
>
> **Output:** 1
>
> **Explanation:**
>
> The graph formed has 1 connected component:
>
> 
>

Example 3:

> **Input:** properties = [[1,1],[1,1]], k = 2
>
> **Output:** 2
>
> **Explanation:**
>
> `intersect(properties[0], properties[1]) = 1`, which is less than `k`. This means there is no edge between `properties[0]` and `properties[1]` in the graph.

Constraints:

- `1 <= n == properties.length <= 100`
- `1 <= m == properties[i].length <= 100`
- `1 <= properties[i][j] <= 100`
- `1 <= k <= m`

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

Yes No

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Topics

Hint 1

Hint 2

Discussion (25)