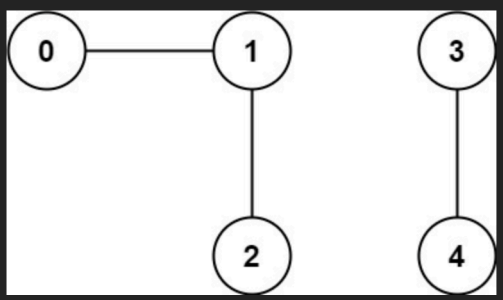
323. Number of Connected Components in an Undirected Graph Premium

Medium | Topics | Companies

You have a graph of `n` nodes. You are given an integer `n` and an array `edges` where `edges[i] = [a_i, b_i]` indicates that there is an edge between `a_i` and `b_i` in the graph.

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

Example 1:




```
Input: n = 5, edges = [[0,1],[1,2],[3,4]]
Output: 2
```

연결 요소의 개수.

- DFS + graph

Accepted 41 / 41 testcases passed

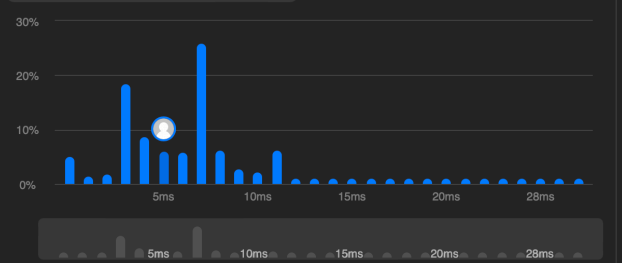
AndrewC275 submitted at Apr 17, 2025 09:59

Editorial | Solution

Runtime 5 ms | Beats 64.11%

Analyze Complexity

Memory 19.74 MB | Beats 14.95%



Code | Python3

```python
class Solution:
    def countComponents(self, n: int, edges: List[List[int]]) -> int:
        res = 0
        g = defaultdict(list)
        visited = set()

        for a, b in edges:
            g[a].append(b)
            g[b].append(a)

        def dfs(node):
            for nei in g[node]:
                if nei not in visited:
                    visited.add(nei)
                    dfs(nei)

        for i in range(n):
            if i not in visited:
                res += 1
                visited.add(i)
                dfs(i)

        return res
```