

133. Clone Graph

Medium Topics Companies

Given a reference of a node in a **connected** undirected graph.

Return a **deep copy** (clone) of the graph.

Each node in the graph contains a value (`int`) and a list (`List[Node]`) of its neighbors.

```
class Node {
    public int val;
    public List<Node> neighbors;
}
```

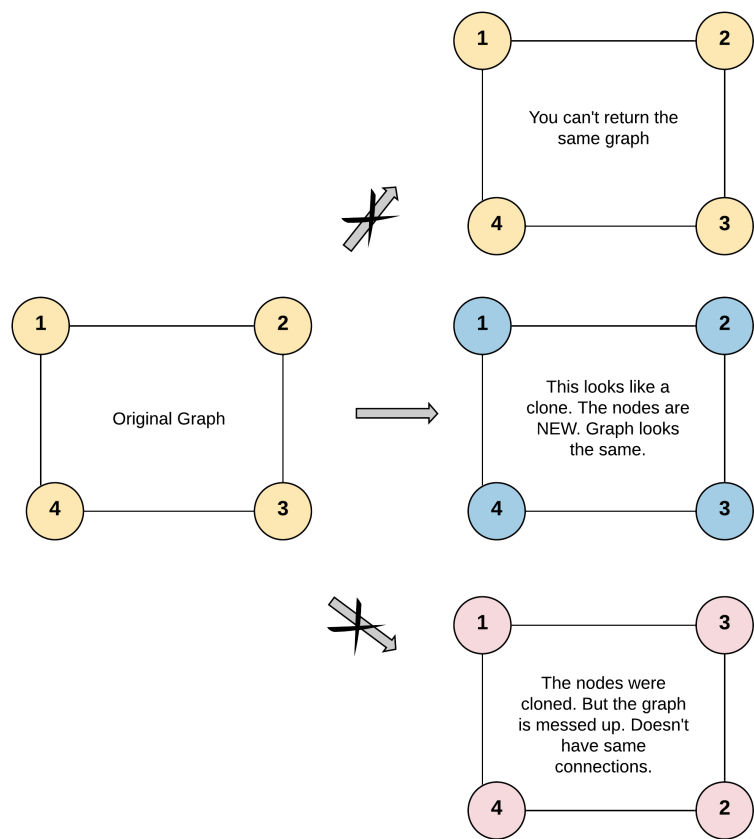
Test case format:

For simplicity, each node's value is the same as the node's index (1-indexed). For example, the first node with `val == 1`, the second node with `val == 2`, and so on.

An adjacency list is a collection of unordered **lists** used to represent a finite graph. Each list describes the set of neighbors of a node in the graph.

The given node will always be the first node with `val = 1`. You must return the **copy of the given node** as a reference to the cloned graph.

Example 1:



Input: `adjList = [[2,4],[1,3],[2,4],[1,3]]`
Output: `[[2,4],[1,3],[2,4],[1,3]]`
Explanation: There are 4 nodes in the graph.
1st node (`val = 1`)'s neighbors are 2nd node (`val = 2`) and 4th node (`val = 4`).
2nd node (`val = 2`)'s neighbors are 1st node (`val = 1`) and 3rd node (`val = 3`).
3rd node (`val = 3`)'s neighbors are 2nd node (`val = 2`) and 4th node (`val = 4`).
4th node (`val = 4`)'s neighbors are 1st node (`val = 1`) and 3rd node (`val = 3`).

Example 2: