

Active Directory - Explanation

The Active Directory problem was implemented by iterating recursively a hierarchical tree structure. For this problem, we assume a cyclic nesting group is not part of the requirement as there was no mention of it.

Time and Space Complexity

The time complexity is $O(n)$, where n is the number of groups. The space complexity is a little bit tricky, but depends on the maximum depth of the recursion tree generated. All in all, it is $O(gm)$, where g is the number of groups and m is the maximum depth of the recursion tree.