Problem 4: Active Directory

This problem required a recursive solution because we could nest groups inside groups so I implemented a recursive function that checks if the user is the group or is in the list of users otherwise it calls itself on the groups

Time and Space complexity
Given
n: use of 'in' on a List
m: number of nested groups
Time → O(n*m) because each time we call 'in' on a List and we iterate if there are nested groups
Space → O(n) because we only have two lists storing user and group data