class Solution:

def accountsMerge(self, accounts):

names = {}

graph = defaultdict(set)

for acc in accounts:

name = acc[0]

for email in acc[1:]:

graph[acc[1]].add(email)

graph[email].add(acc[1])

names[email] = name

comps, seen, ans, i = defaultdict(list), set(), [], 0

def dfs(node, i):

comps[i].append(node)

seen.add(node)

for neib in graph[node]:

if neib not in seen: dfs(neib, i)

for email in graph:

if email not in seen:

dfs(email, i)

i += 1

print(graph)

return [[names[val[0]]] + sorted(val) for \_,val in comps.items()]