# 불량 사용자

| # Index | 64064 |
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## *References*

https://school.programmers.co.kr/learn/courses/30/lessons/64064

*References*
1. Depth First Search

## 1. Depth First Search

```python
def solution(user_id, banned_id):
    users = dict()
    for user in user_id:
        users[len(user)] = users.get(len(user), []) + [user]

    banneds = dict()
    for ban in set(banned_id):
        for user in users.get(len(ban), []):
            same = True
            for i in range(len(ban)):
                if ban[i] == "*":
                    continue
                if user[i] != ban[i]:
                    same = False
                    break
            if same:
                banneds[ban] = banneds.get(ban, []) + [user]

    visited = dict()
    for user in user_id:
        visited[user] = False
```

```python
permutation = list()
def search(bans, per, permutation):
    if not bans:
        permutation.append(per)
        return

    ban = bans.pop()
    for user in banneds[ban]:
        if not visited[user]:
            visited[user] = True
            search(bans, per | set([user]), permutation)
            visited[user] = False
    bans.append(ban)
    return

result = search(banned_id, set(), permutation)

result = set()
for p in permutation:
    result.add(" ".join(sorted(p)))

return len(result)
```