

## 841. Keys and Rooms

<https://leetcode.com/problems/keys-and-rooms/>

There are  $n$  rooms labeled from 0 to  $n - 1$  and all the rooms are locked except for room 0. Your goal is to visit all the rooms. However, you cannot enter a locked room without having its key. When you visit a room, you may find a set of **distinct keys** in it. Each key has a number on it, denoting which room it unlocks, and you can take all of them with you to unlock the other rooms. Given an array `rooms` where `rooms[i]` is the set of keys that you can obtain if you visited room  $i$ , return `true` if you can visit **all** the rooms, or `false` otherwise.

### Example 1:

**Input:** `rooms = [[1],[2],[3],[]]`

**Output:** `true`

### Explanation:

We visit room 0 and pick up key 1.

We then visit room 1 and pick up key 2.

We then visit room 2 and pick up key 3.

We then visit room 3.

Since we were able to visit every room, we return `true`.

### Example 2:

**Input:** `rooms = [[1,3],[3,0,1],[2],[0]]`

**Output:** `false`

**Explanation:** We can not enter room number 2 since the only key that unlocks it is in that room.

### Constraints:

- $n == \text{rooms.length}$
- $2 \leq n \leq 1000$
- $0 \leq \text{rooms}[i].\text{length} \leq 1000$
- $1 \leq \sum(\text{rooms}[i].\text{length}) \leq 3000$
- $0 \leq \text{rooms}[i][j] < n$
- All the values of `rooms[i]` are **unique**.