

46. Permutations

Given an array `nums` of distinct integers, return all the possible permutations. You can return the answer in any order.

Example 1:

Input: `nums = [1,2,3]`

Output: `[[1,2,3],[1,3,2],[2,1,3],[2,3,1],[3,1,2],[3,2,1]]`

Example 2:

Input: `nums = [0,1]`

Output: `[[0,1],[1,0]]`

Example 3:

Input: `nums = [1]`

Output: `[[1]]`

Constraints:

- `1 <= nums.length <= 6`
- `-10 <= nums[i] <= 10`
- All the integers of `nums` are unique.
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131. Palindrome Partitioning

Given a string `s`, partition `s` such that every substring of the partition is a palindrome. Return all possible palindrome partitioning of `s`.

Example 1:

Input: `s = "aab"`

Output: `[["a","a","b"],["aa","b"]]`

Example 2:

Input: `s = "a"`

Output: `[["a"]]`

Constraints:

- $1 \leq s.length \leq 16$
- s contains only lowercase English letters.

90. Subsets II

Given an integer array `nums` that may contain duplicates, return all possible subsets

(the power set).

The solution set must not contain duplicate subsets. Return the solution in any order.

Example 1:

Input: `nums = [1,2,2]`

Output: `[[],[1],[1,2],[1,2,2],[2],[2,2]]`

Example 2:

Input: `nums = [0]`

Output: `[[],[0]]`

Constraints:

- $1 \leq nums.length \leq 10$
- $-10 \leq nums[i] \leq 10$

39. Combination Sum

Given an array of distinct integers `candidates` and a target integer `target`, return a list of all unique combinations of `candidates` where the chosen numbers sum to `target`. You may return the combinations in any order.

The same number may be chosen from `candidates` an unlimited number of times.

Two combinations are unique if the frequency

of at least one of the chosen numbers is different.

The test cases are generated such that the number of unique combinations that sum up to target is less than 150 combinations for the given input.

Example 1:

Input: candidates = [2,3,6,7], target = 7

Output: [[2,2,3],[7]]

Explanation:

2 and 3 are candidates, and $2 + 2 + 3 = 7$. Note that 2 can be used multiple times.

7 is a candidate, and $7 = 7$.

These are the only two combinations.

Example 2:

Input: candidates = [2,3,5], target = 8

Output: [[2,2,2,2],[2,3,3],[3,5]]

Example 3:

Input: candidates = [2], target = 1

Output: []

Constraints:

- $1 \leq \text{candidates.length} \leq 30$
- $2 \leq \text{candidates}[i] \leq 40$
- All elements of candidates are distinct.
- $1 \leq \text{target} \leq 40$

40. Combination Sum II

Given a collection of candidate numbers (candidates) and a target number (target), find all unique combinations in candidates where the candidate numbers sum to target.

Each number in candidates may only be used once in the combination.

Note: The solution set must not contain duplicate combinations.

Example 1:

Input: candidates = [10,1,2,7,6,1,5], target = 8

Output:

```
[  
  [1,1,6],  
  [1,2,5],  
  [1,7],  
  [2,6]  
]
```

Example 2:

Input: candidates = [2,5,2,1,2], target = 5

Output:

```
[  
  [1,2,2],  
  [5]  
]
```

Constraints:

- $1 \leq \text{candidates.length} \leq 100$
- $1 \leq \text{candidates}[i] \leq 50$
- $1 \leq \text{target} \leq 30$

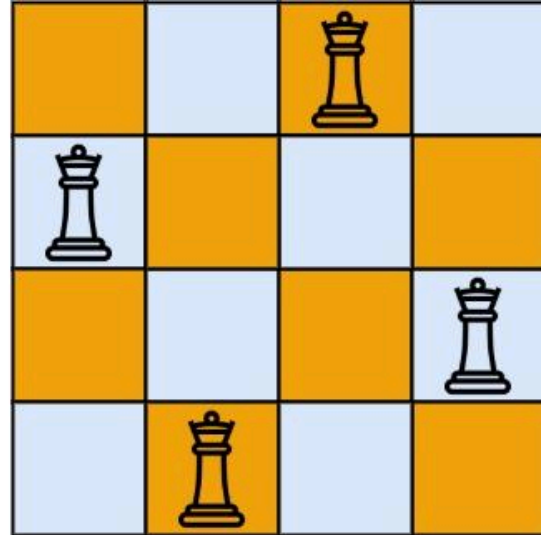
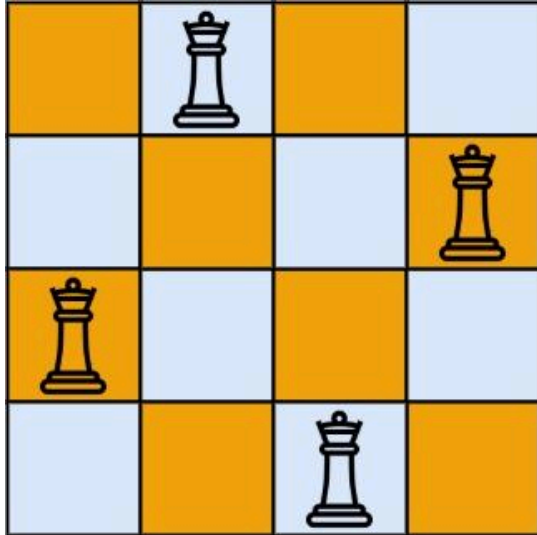
51. N-Queens

The n-queens puzzle is the problem of placing n queens on an n x n chessboard such that no two queens attack each other.

Given an integer n, return all distinct solutions to the n-queens puzzle. You may return the answer in any order.

Each solution contains a distinct board configuration of the n-queens' placement, where 'Q' and '.' both indicate a queen and an empty space, respectively.

Example 1:



Input: n = 4

Output: [[".Q..", "...Q", "Q...", "..Q."], ["..Q.", "Q...", "...Q", ".Q.."]]

Explanation: There exist two distinct solutions to the 4-queens puzzle as shown above

Example 2:

Input: n = 1

Output: [["Q"]]

Constraints:

- $1 \leq n \leq 9$