Problem 51: N-Queens

Problem Information

Difficulty: Hard
Acceptance Rate: 74.33%
Paid Only: No
Tags: Array, Backtracking

Problem Description

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 <= n <= 9`

Code Snippets

C++:

```
class Solution {
public:
vector<vector<string>> solveNQueens(int n) {

}
};
```

Java:

```
class Solution {
public List<List<String>> solveNQueens(int n) {

}
}
```

Python3:

```
class Solution:
def solveNQueens(self, n: int) -> List[List[str]]:
```