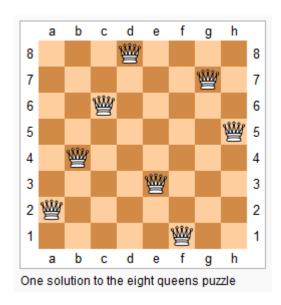
51. N-Queens

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



Given an integer n, return all distinct solutions to the n-queens puzzle.

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:

```
Input: 4
Output: [
    [".Q..", // Solution 1
    "...Q",
    "Q...",
    "...Q."],

["...Q.", // Solution 2
    "Q...",
    "...Q",
    "...Q",
    "...Q",
    "...Q",
    "...Q.."]
]
Explanation: There exist two distinct solutions to the 4-queens puzzle as shown above.
```