```
def is_safe(board, row, col):
    for i in range(row):
        if board[i] == col or \
           board[i] - i == col - row or \
           board[i] + i == col + row:
            return False
    return True

def solve_n_queens(board, row, n):
    if row == n:
        return True
    for col in range(n):
        if is_safe(board, row, col):
            board[row] = col
            if solve_n_queens(board, row + 1, n):
                return True
            board[row] = -1
    return False

def n_queens(n):
    board = [-1] * n
    if solve_n_queens(board, 0, n):
        print("Solution found:")
        print(board)
    else:
        print("No solution exists")

n = 8
n_queens(n)
```

```
Solution found:
[0, 4, 7, 5, 2, 6, 1, 3]
```