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#include <stdbool.h>
#include <stdio.h>
#define N 4

void printSolution(int board[N][N])
{
    for (int i = 0; i < N; i++)
    {
        for (int j = 0; j < N; j++)
            printf(" %d ",board[i][j]);
        printf("\n");
    }
}

bool isSafe(int board[N][N], int row, int col)
{
    int i, j;

    for (j = 0; j < col; j++)
        if (board[row][j])
            return false;

    for(i=0;i< row;i++)
        if(board[i][col])
            return false;

    for (i = row, j = col; i >= 0 && j >= 0; i--, j--)
        if (board[i][j])
            return false;
    for (i = row, j = col; i >= 0 && j < N; i--, j++)
        if (board[i][j])
            return false;

    return true;
}

bool NQueen(int board[N][N], int row)
{
    if (row == N)
        return true;

    for (int j = 0; j < N; j++) {
        if (isSafe(board, row, j)) {
            board[row][j] = 1;
            if (NQueen(board, row + 1))
                return true;
            board[row][j] = 0;
        }
    }
    return false;
}

int main()
{
    int board[N][N] = {0};

```

```
    if (NQueen(board,0) == false) {  
        printf("Solution does not exist");  
        return 0;  
    }  
  
    printSolution(board);  
    return true;  
    return 0;  
}
```