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#include<bits/stdc++.h>

#define N 4

using namespace std;

void printboard(int board[N][N])
{
    for(int i=0;i<N;i++)
    {
        for(int j=0;j<N;j++)
        {
            cout<<board[i][j]<<" ";
        }
        cout<<"\n";
    }
}

bool isSafe(int board[N][N],int row,int col)
{
    int i,j;
    for(i=0;i<col;i++){
        if(board[row][i])
            return false;
    }

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

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

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    }

    return true;
}

bool nqueen(int board[N][N],int col)
{
    if(col>=N)
        return true;

    for(int i=0;i<N;i++){
        if(isSafe(board,i,col)){
            board[i][col]=1;

            if(nqueen(board,col+1))
                return true;

            board[i][col]=0;
        }
    }

    return false;
}

bool solveNQ()
{
    int board[N][N]={
        {0,0,0,0},
        {0,0,0,0},
        {0,0,0,0},
        {0,0,0,0},
    };

    if(nqueen(board,0))
        return true;
    return false;
}

```