**N Queens**

**You are given N, and for a given N x N chessboard, find a way to place N queens such that no queen can attack any other queen on the chess board. A queen can be killed when it lies in the same row, or same column, or the same diagonal of any of the other queens. You have to print all such configurations.**

#include<bits/stdc++.h>

using namespace std;

int board[11][11];

bool ischeck(int n, int row, int col){

// int i,j;

for(int i=row-1;i>=0;i--)

{

if(board[i][col]==1){

return false;

}}

for(int i=row-1,j=col-1;i>=0 && j>=0;i--,j--)

{

if(board[i][j]==1){

return false;

}}

for(int i=row-1,j=col+1;i>=0 && j<n;i--,j++)

{

if(board[i][j]==1){

return false;

}

}

return true;

}

void queen(int n,int row)

{

// int i,j;

if(row==n)

{

for(int i=0;i<n;i++)

{

for(int j=0;j<n;j++)

{

cout<<board[i][j]<<" ";

}

}

cout<<endl;

return;

}

for(int j=0;j<n;j++){

if(ischeck(n,row,j)){

board[row][j]=1;

queen(n,row+1);

board[row][j]=0;

}

}

return;

}

void placeNQueens(int n){

memset(board,0,11\*11\*sizeof(int));

queen(n,0);

}