#include<stdio.h>

void printSolution(int board[8][8]){

for(int i=0; i<8; i++){

for(int j=0; j<8; j++){

printf("%d", board[i][j]);

}

printf("\n");

}

printf("\n");

}

int isSafe(int board[8][8], int row, int col){

for(int i=0; i<col; i++){

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

return 0;

}

}

for (int i=row, j=col; i<8 && j>=0; i++, j--){

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

return 0;

}

}

for (int i = row, j = col; i < 8 && j >= 0; i++, j--) {

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

return 0;

}

}

return 1;

}

void solveNQueens(int board[8][8], int col) {

if (col >= 8) {

printSolution(board);

return;

}

for (int i = 0; i < 8; i++) {

if (isSafe(board, i, col)) {

board[i][col] = 1;

solveNQueens(board, col + 1);

board[i][col] = 0;

}

}

}

int main() {

int board[8][8] = {0};

solveNQueens(board, 0);

return 0;

}