print ("Enter the number of queens")

N = int(input())

#chessboard

#NxN matrix with all elements 0

board = [[0]\*N for \_ in range(N)]

def is\_attack(i, j):

#checking if there is a queen in row or column

for k in range(0,N):

if board[i][k]==1 or board[k][j]==1:

return True

#checking diagonals

for k in range(0,N):

for l in range(0,N):

if (k+l==i+j) or (k-l==i-j):

if board[k][l]==1:

return True

return False

def N\_queen(n):

#if n is 0, solution found

if n==0:

return True

for i in range(0,N):

for j in range(0,N):

'''checking if we can place a queen here or not

queen will not be placed if the place is being attacked

or already occupied'''

if (not(is\_attack(i,j))) and (board[i][j]!=1):

board[i][j] = 1

#recursion

#wether we can put the next queen with this arrangment or not

if N\_queen(n-1)==True:

return True

board[i][j] = 0

return False

N\_queen(N)

for i in board:

print (i