import copy

N = 8

def printSolution(board):

for row in board:

for i in range(N):

print("Q" if row[i] else ".", end=" ")

print()

print()

def isSafe(board, row, col):

for i in range(row):

if board[i][col]:

return False

for i, j in zip(range(row - 1, -1, -1), range(col - 1, -1, -1)):

if board[i][j]:

return False

for i, j in zip(range(row - 1, -1, -1), range(col + 1, N)):

if board[i][j]:

return False

return True

def solve(board, row, solutions):

if row == N:

solutions.append(copy.deepcopy(board))

printSolution(board)

return

for col in range(N):

if isSafe(board, row, col):

board[row][col] = 1

solve(board, row + 1, solutions)

board[row][col] = 0

def eightQueens():

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

solutions = []

solve(board, 0, solutions)

print(f"Total solutions found: {len(solutions)}")

eightQueens()

OUTPUT:-

