**EXPERIMENT 2:**

N = 8

def print\_board(board):

for row in board:

print(" ".join("Q" if col else "." for col in row))

print()

def is\_safe(board, row, col):

for i in range(row):

if board[i][col]:

return False

i, j = row - 1, col - 1

while i >= 0 and j >= 0:

if board[i][j]:

return False

i -= 1

j -= 1

i, j = row - 1, col + 1

while i >= 0 and j < N:

if board[i][j]:

return False

i -= 1

j += 1

return True

def solve(board, row):

if row == N:

print\_board(board)

return True

for col in range(N):

if is\_safe(board, row, col):

board[row][col] = 1

if solve(board, row + 1):

return True

board[row][col] = 0

return False

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

if not solve(board, 0):

print("No solution exists.")

**OUTPUT:**

