**Exp: 2 Write the Python Program to solve 8-Queen Problem**

**Input:**

N = 8

def print\_solution(board):

    for row in board:

        line = ""

        for col in row:

            line += "Q " if col else ". "

        print(line)

    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\_solution(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

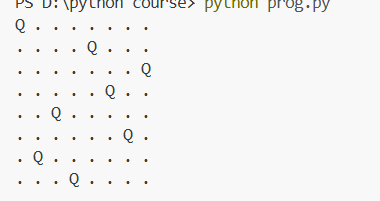
    return False

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

if not solve(board, 0):

    print("No solution found.")

**output:**

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