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class NQBacktracking:

    def __init__(self, x_, y_):

        self.ld = [0] * 30
        self.rd = [0] * 30
        self.cl = [0] * 30
        self.x = x_
        self.y = y_

    def printSolution(self, board):

        print("N Queen Backtracking Solution:\nGiven initial position of 1st queen at
row:",self.x,"column:",self.y,"\n",)

        for line in board:

            print(" ".join(map(str, line)))

    def solveNQUtil(self, board, col):

        if col >= N:

            return True

        if col == self.y:

            return self.solveNQUtil(board, col + 1)

        for i in range(N):

            if i == self.x:

                continue

            if (self.ld[i - col + N - 1] != 1 and self.rd[i + col] != 1 and self.cl[i] != 1:

                board[i][col] = 1

                self.ld[i - col + N - 1] = self.rd[i + col] = self.cl[i] = 1

                if self.solveNQUtil(board, col + 1):

                    return True

                board[i][col] = 0 # BACKTRACK

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        self.ld[i - col + N - 1] = self.rd[i + col] = self.cl[i] = 0

    return False

def solveNQ(self):
    board = [[0 for _ in range(N)] for _ in range(N)]
    board[self.x][self.y] = 1
    self.ld[self.x - self.y + N - 1] = self.rd[self.x + self.y] = self.cl[self.x] = 1
    if not self.solveNQUtil(board, 0):
        print("Solution does not exist")
        return False
    self.printSolution(board)
    return True

if __name__ == "__main__":
    N = 4
    x, y = 1, 3
    NQBt = NQBacktracking(x, y)
    NQBt.solveNQ()

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OUTPUT:

N Queen Backtracking Solution:

Given initial position of 1st queen at row: 1 column: 3

0 1 0 0

0 0 0 1

1 0 0 0

0 0 1 0