**N-Queen Problem**

def isSafe(mat, r, c):

for i in range(r):

if mat[i][c] == 'Q':

return False

(i, j) = (r, c)

while i >= 0 and j >= 0:

if mat[i][j] == 'Q':

return False

i = i - 1

j = j - 1

(i, j) = (r, c)

while i >= 0 and j < len(mat):

if mat[i][j] == 'Q':

return False

i = i - 1

j = j + 1

return True

def printSolution(mat):

for r in mat:

print(str(r).replace(',', '').replace('\'', ''))

print()

def nQueen(mat, r):

if r == len(mat):

printSolution(mat)

return

for i in range(len(mat)):

if isSafe(mat, r, i):

mat[r][i] = 'Q'

nQueen(mat, r + 1)

mat[r][i] = '–'

if \_\_name\_\_ == '\_\_main\_\_':

N = int(input("enter the value of N: "))

mat = [['–' for x in range(N)] for y in range(N)]

nQueen(mat, 0)