A.I

LAB TASK 5

Name: Syed Muzzamil Waseem

SID: 11067

CID: 110089

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QUESTION:

The Goal is to place each queen in a square so that no queen attacks any other queen. (In Chess, a queen can attack another chess piece within the same column, row, diagonal)

**CODE:**

print("Enter the number of queens: ")

N= int(input())

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

def attack(i,j):

for k in range(0,N):

if board[i][k]==1 or board[k][j]==1:

return True

for k in range(0,N):

for l in range(0,N):

if (k+l==i+j) or (k-l==i-j):

if board[k][l]==1:

return True

return False

def Nqueen(n):

if n==0:

return True

for i in range(0,N):

for j in range (0,N):

if (not(attack(i,j))) and (board[i][j]!=1):

board[i][j]=1

if Nqueen(n-1)==True:

return True

board[i][j]=0

return False

Nqueen(N)

for i in board:

print(i)

OUTPUT:

