Name: Mahesh Deshpande **Roll no** – 11

Practical – 4

N - Queen

Code:

```
global N
def getnum():
    return int(input("Enter the area of Board:"))
def Solution(board):
    for i in range(N):
        for j in range(N):
            print(board[i][j], end=" ")
        print()
def Safe(board, row, col):

    for i in range(col):
        if board[row][i] == 1:
            return False

    for i, j in zip(range(row, -1, -1),
                    range(col, -1, -1)):
        if board[i][j] == 1:
            return False

    for i, j in zip(range(row, N, 1),
                    range(col, -1, -1)):
        if board[i][j] == 1:
            return False

    return True
def solvetill(board, col):

    if col >= N:
        return True

    for i in range(N):

        if Safe(board, i, col):

            board[i][col] = 1

            if solvetill(board, col + 1) == True:
                return True

            board[i][col] = 0

    return False

def solveNQ():
```

```
    board = [[0 for i in range(N)]
             for j in range(N)]

    if solvetill(board, 0) == False:
        print("Solution does not exist")
        return False

    Solution(board)
    return True

while(2>0):
    N =getnum()
    solveNQ()
```

Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS D:\My Files\Programmes\AI_Pract> & "C:/Program Files/Python311/python.exe" "d:/My Files/Programmes/AI_Pract/nqueen.py"
Enter the area of Board:8
1 0 0 0 0 0 0 0
0 0 0 0 0 0 1 0
0 0 0 0 1 0 0 0
0 0 0 0 0 0 0 1
0 1 0 0 0 0 0 0
0 0 0 1 0 0 0 0
0 0 0 0 0 1 0 0
0 0 1 0 0 0 0 0
```