

Write a program to solve 8 Queens problem

Aim:

To write a program to solve 8 Queens problem

Code:

```
global N
N = 8
def printboard(board):
    for i in range(N):
        for j in range(N):
            if board[i][j] == 1:
                print("Q", end=" ")
            else:
                print(".", end=" ")
        print()
def isafeS(board, i, j):
    while j - 1 >= 0:
        if board[i][j - 1] == 1:
            return False
        j -= 1
    return True
def isafeD(board, i, j):
    while j - 1 >= 0 and i - 1 >= 0:
        if board[i - 1][j - 1] == 1:
            return False
        j -= 1
        i -= 1
    return True
```

```

def solveuntil(board, col):
    if col >= N:
        return True
    for i in range(N):
        if isafeS(board, i, col) and isafeD(board, i, col):
            board[i][col] = 1
            if solveuntil(board, col + 1):
                return True
            board[i][col] = 0
    return False
board = [[0 for _ in range(N)] for _ in range(N)]
if solveuntil(board, 0) == False:
    print("No possible Solution")
else:
    printboard(board)

```

Output:

```

Q . . . . . . .
. . . . . Q .
. Q . . . . .
. . . . . Q .
. . . . . . Q
. . Q . . . .
. . . . Q . .
. . . Q . . .

```

Result:

8 queens problem solved successfully.