

Assignment 5 :

Source Code :

```
def isSafe(board,row,col,n):  
    for x in range(col,-1,-1):  
        if(board[row][x]==1):  
            return False  
  
    i = row  
    j = col  
    while(i>=0 and j>=0):  
        if(board[i][j] == 1):  
            return False  
        i -=1  
        j -=1  
    i = row  
    j = col  
    while(i<n and j >=0):  
        if(board[i][j] == 1):  
            return False  
        i += 1  
        j -= 1  
    return True  
  
def nQueens (board,col,n):  
    if(col >=n):  
        return True  
  
    for i in range(n):  
        if(isSafe(board,i,col,n)):  
            board[i][col] = 1
```

```

        if(nQueens(board,col+1,n)):
            return True
        board[i][col]= 0
        return False
n = int(input("Enter the size of board: "))
board = [[0 for j in range(n)] for i in range(n)]
if(nQueens(board,0,n) == True):
    for i in range(n):
        for j in range(n):
            print(board[i][j], end=" ")
        print()
else:
    print("not possible")

```

Output :

Enter the size of board: 8

```

1 0 0 0 0 0 0 0
0 0 0 0 0 0 1 0
0 1 0 0 0 0 0 0
0 0 0 0 0 1 0 0
0 0 0 0 0 0 0 1
0 0 1 0 0 0 0 0
0 0 0 0 1 0 0 0
0 0 0 1 0 0 0 0

```