Code:

41427_LP-III_A4.py > N_queen

```python
print ("Enter the number of queens")
N = int(input())

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

def is_attack(i, j):
    for k in range(0,N):
        if board[i][k]==1 or board[k][j]==1:
            return True
    #checking diagonals
    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 N_queen(n):
    if n==0:
        return True
    for i in range(0,N):
        for j in range(0,N):
            '''checking if we can place a queen here or not
            queen will not be placed if the place is being attacked
            or already occupied'''
            if (not(is_attack(i,j))) and (board[i][j]!=1):
                board[i][j] = 1
                if N_queen(n-1)==True:
                    return True
                board[i][j] = 0

    return False

N_queen(N)
for i in board:
    print (i)
```

Output:

```
PS E:\BE\41427_LP-III_Codes\DAA> & C:/Users/abhij/AppData/Local/Programs/Python/Python311/python.exe
e:/BE/41427_LP-III_Codes/DAA/41427_LP-III_A4.py
Enter the number of queens
4
[0, 1, 0, 0]
[0, 0, 0, 1]
[1, 0, 0, 0]
[0, 0, 1, 0]
PS E:\BE\41427_LP-III_Codes\DAA> & C:/Users/abhij/AppData/Local/Programs/Python/Python311/python.exe
e:/BE/41427_LP-III_Codes/DAA/41427_LP-III_A4.py
Enter the number of queens
3
[0, 0, 0]
[0, 0, 0]
[0, 0, 0]
PS E:\BE\41427_LP-III_Codes\DAA> & C:/Users/abhij/AppData/Local/Programs/Python/Python311/python.exe
e:/BE/41427_LP-III_Codes/DAA/41427_LP-III_A4.py
Enter the number of queens
5
[1, 0, 0, 0, 0]
[0, 0, 1, 0, 0]
[0, 0, 0, 0, 1]
[0, 1, 0, 0, 0]
[0, 0, 0, 1, 0]
```