

AI record.py - C:/Users/DELL/AI record.py (3.11.9)

File Edit Format Run Options Window Help

```
import copy
```

```
N = 8
```

```
def printSolution(board):
    for row in board:
        for i in range(N):
            print("Q" if row[i] else ".", end=" ")
        print()
    print()
```

```
def isSafe(board, row, col):
    for i in range(row):
        if board[i][col]:
            return False
    for i, j in zip(range(row - 1, -1, -1), range(col - 1, -1, -1)):
        if board[i][j]:
            return False
    for i, j in zip(range(row - 1, -1, -1), range(col + 1, N)):
        if board[i][j]:
            return False
    return True
```

```
def solve(board, row):
    if row == N:
        printSolution(board)
        return True # Stop after finding the first solution
    for col in range(N):
        if isSafe(board, row, col):
            board[row][col] = 1
            if solve(board, row + 1):
                return True
            board[row][col] = 0
    return False
```

```
def eightQueens():
    board = [[0 for _ in range(N)] for _ in range(N)]
    solve(board, 0)
```

```
eightQueens()
```

IDLE Shell 3.11.9

File Edit Shell Debug Options Window Help

Python 3.11.9 (tags/v3.11.9:de54cf5, Apr 2 2024, 10:12:12) [MSC v.1938 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>

= RESTART: C:/Users/DELL/AI record.py

```
Q . . . . .
. . . . Q . .
. . . . . Q
. . . . Q .
. . Q . . .
. . . . . Q
. Q . . . .
. . . Q . .
```

>>>