

PROBLEM FOUR: EIGHT QUEENS

Computing possible solutions to classic human games such as Chess as long been an application of Computer Science. The goal of the Eight Queens puzzle is to place eight queens on a chessboard such that no two queens can attack each other. That is, no two queens are on the same row, same column, or same diagonal. There are many possible solutions.

Your program must compute and display one possible solution to the Eight Queens puzzle on a 8x8 sized chessboard. Use the character 'O' to indicate empty positions, and 'X' to indicate positions with Queens on them. Your program must also include one space between each character.

Example:

```
X O O O O O O O
O O O O X O O O
O O O O O O O X
O O O O O X O O
O O X O O O O O
O O O O O O X O
O X O O O O O O
O O O X O O O O
```

REQUIRED INPUT: None

REQUIRED OUTPUT: A computed solution to the Eight Queens puzzle on an 8x8 chessboard. Use the character 'O' to indicate empty positions, and 'X' to indicate positions with Queens on them. Your program must also include one space between each character.