Crowded Seating

ZPRAC-16-17-Lab12

[CROWDED SEATING] [40 Points] ---------- ANNOUNCEMENT: - You need to use recursions for this problem. Directly printing the result or using ad-hoc solutions will lead to 0 credit. Up to 20% marks will be allotted for good programming practice. These include - Comments for non-trivial code - Indentation: align your code properly ---------- At the opening ceremony for the International CS:GO Tournament, players will sit in the auditorium which a grid of seats with R rows and C columns. The competition will be intense, and the players are sensitive about sitting near too many of their future opponents! A player will feel too crowded if another player is seated directly to their left and another player is seated directly to their right. Also, a player will feel too crowded if one player is seated directly in front of them and another player is seated directly behind them. What is the maximum number of players that can be seated such that no player feels too crowded? Input: One line containing 2 integers: R and C Output: A single integer: the maximum number of players that can be seated in the auditorium of R rows and C columns. Example: Input 4 1 Output: 3 Input: 2 3 Output: 4 Explanation of example 2: Each row has three seats. We can't put three players in a row, since that would make the middle player feel too crowded. One optimal solution is to fill each of the first two columns, for a total of four players. Constraints: $1 \leq R, C \leq 4$