Project: It’s a group project. The maximum number of members for each group will be 2.

## Name: Implement Minimax algorithm with Alpha-Beta Pruning to solve the Tic-Tac-Toe Problem.

In this problem, you will be given an initial board configuration containing ‘x’ or ‘o’ in different positions and the player’s name (Max or Min) who will be giving a move in the next play. Max always gives ‘x’ and Min always gives ‘o’ as their moves. The whole game is played rationally by each player.

You need to implement the minimax algorithm with alpha-beta pruning to determine if both players play rationally who will be the final winner from this current state or current configuration. Please see the input-output section for more clarification. ‘\_’ denotes that this place or cell is empty and any player can give their moves here.

As a bonus part, you can also print the input player’s next move, if it is winning as the board configuration.

In the second part, you need to make the game interactive, where you and the computer are playing. You will be given a board. You will give the first move (‘x’), the computer will choose its next optimal move and the game will carry on until a winner is decided.

Test Cases:

| Input | Output |
| --- | --- |
| Board =  x \_ \_  \_o x  o\_ \_  Player = Min | Winner is Min.  Next board can be,  x o \_  \_ o x  o \_ \_ |
| Board =  x \_ \_  \_o x  o\_ \_  Player = Max | Winner is Max  Next board can be  x \_ x  \_ o x  o \_ \_ |
| Board =  x \_ x  \_o\_  o\_ \_  Player = Min | Draw |

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