

Assignment 2: Using Mix Max to solve Tic Tac Toe

Due October 17th end of day

In this assignment you will be applying Min/Max guidance to play Tic Tac Toe.

You will need to download the file GameAp.py that has a framework for playing a game of Tic Tac Toe. It invokes the function “mymove” in the file mytictactoe.py that is referenced in the GameApp file.

The function mymove is called with two arguments:

- The board (a list of values that corresponds to the board)
- The symbol that the machine is playing (“X” or “O”)

Values in the board are either 0 (if there is no symbol in place), 1 (if the position is filled with an “X”) and -1 (if the position is filled with a “O”).

Your function should return a number between 1 and 9 corresponding to the move the machine has decided to take.

While the board is handed in as a list, you do not have to use it as your representation.

The machine should at least come to a draw and win whenever possible.

The two files are included in the Assignments Folder. A stub of the function mymove is in the file mytictactoe.py. It queries for an input so that you can see how the overall system works.

Both files need to be in the same folder and the game is played by doing a command line call “python GampApp.py”

The deliverable is a new version of the mytictactoe.py. It will be run by the graders in the framework of the GameApp code.

In the assignment, you will need to use Min/Max to determine the best move and Alpha/Beta pruning to optimize the search space.