

Global Variables:
char tictactoe[9] //logical board
int turn = 0 // turn counter
int player = 0 // first player (0 for X/User, 1 for O/Computer)
int winner = 2 // 2 for running
int global_depth = 10 // Computer difficulty (-10: easy, 2: medium, 10: hard)

Move() : Takes int index as a parameter and updates the logical representation of the board and steps turn by one

WinCheck() : Checks the rows, columns and diagonals for a win. If no win then checks if turn is 9 (board full) for a draw. Updates winner to 1, 0, and -1 for X wins, draw, and O wins

GetBestMove() : Takes global_depth as a parameter. If global_depth is 10 it recursively parses through the entire state space, playing optimal moves for itself and the user to determine the best move returning the move with the highest score. If global_depth is 2 it goes to a recursive depth of two moves finding the optimal moves and at next depth it gives a random score for all moves at that depth (range is -2 to 2), introducing some randomness in the optimal move that is returned. If global_depth is -10 it returns a random valid move.

