Assembly Game
- Ultimate Tic Tac Toe -

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0. Prolog :))

Remember those days when Tic Tac Toe felt a tad too small? Introducing the solution: Ultimate Tic Tac Toe! Now, instead of just 9 squares, you've got... 9 squares. But wait for it, each of those squares is made up of another 9 squares! That's right, it's not just 9 times the fun, it's 81 times the confusion! Tic Tac Toe, now in Super Mega Ultra HD.

1. Team

I'm going to be working on this game with Horia Galitianu.

2. OS

The game will be targeted for Linux (Ubuntu).

3. Libraries

We'll take on the challenge to make the game without using any libraries.

4. Graphics

The game will have an old school vibe, so it will be rendered on the terminal, using the ASCII characters.

5. Rules

- **Players:** The game is played by two players, X and O, taking alternate turns.
- **Initial Move:** Player X begins by placing a symbol anywhere on the 9x9 grid.
- **Relative Moves:** The opponent (Player O) is then compelled to play within the corresponding 3x3 grid. The location of Player X's move dictates the smaller grid where Player O must play.
- **Winning a Grid:** If a move in a smaller grid results in a win by traditional Tic-Tac-Toe rules (three in a row, vertically, horizontally, or diagonally), the entire

smaller grid is awarded to the player in the larger 9x9 grid. Subsequent moves cannot be made within a fully won or fully occupied smaller grid.

- **Alternative Play:** If a player is directed to a smaller grid that is already won or completely occupied, they have the liberty to choose any available smaller grid for their next move.
- **Game Conclusion:** The game concludes when a player wins the larger 9x9 grid by securing three smaller grids in a row (vertically, horizontally, or diagonally), or when no further legal moves are available, resulting in a draw.

6. Implementation

The game will store the following data

- Number of wins and loses for both players
- Current game state
    - the matrix of the “big” table: 3x3 (an array in memory)
    - a matrix for the smaller squares: 9x9
- The table will be displayed at all time, bellow who’s player’s turn it is, and bellow you can enter the desired position where you want to place your X/O

The game will wait for user input, when typed it will check whether somebody won.