

4-Player Ultimate Tic Tac Toe Base Game Scenario

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The first iteration of Tic Tac Toe will allow up to 4 players to play this 9 board version of Tic Tac Toe. The server will control the logic behind the game. The inner boards will be the individual boards on each section. The outerboard will be the combination of all 9 innerboards. This first scenario describes what happens when a player joins and wants to play the game, what the overall flow of the game is and how a winner is chosen.

A key feature to this game is the implementation of an AI. This allows for offline use, and allows you to still play the game with less than 4 human players. Another key feature of this game is the uniqueness of how a winner is chosen. Often with regular Tic Tac Toe, tie games are much more common. This version of the classic game allows for less frequent ties due to a tallying system which adds a new element of strategy.

Scenario "Game Setup"

The player starts the game by opening up the application. This application will start with a welcome screen which will include a button for instructions and a button to join a server. The button for instructions will open another screen which will have directions on how to play the game and information on how the game works. The join server will allow the user to join an existing game.

The servers that the player joins will already be created and running. This will make it so the user will not have to create a server when starting the game. These servers will be managed by the game. The user will be able to join a designated server through the join server button. This will allow the user to join servers with specific players easier. When the user presses join server, it will be prompted to enter the servers IP and port that they would like to join.

Once the user joins a server, it will be sent to a waiting screen. They will stay in this screen until 4 players have been reached. The players at this point may choose to add AI if they choose too. They will have an add AI button and will be able to add up to 3 AI, depending how many players are currently in the server.

The AI for this version of the game will be a simple random number generator that will be included as a player that will be managed by the server. The AI uses the random number generator to pick out a random slot in the outer and inner board, and make its move. The logic for the more difficult AI modes will be implemented in the next scenario. For now the AI will be added into the game through the button and its difficulty will be automatically set to this simple version of the AI. For the next scenario, there will be a button to select the difficulty of the AI.

Once all players have connected to the server, order will be assigned by the order the players joined the server. The user will be able to see what piece it is on the side of the screen. The user will also be able to see whose turn it is. There will be a button on the top of the game to either leave the game or see instructions on how to play. Each player will take turns placing their piece based on the assigned order that was picked.

After each move is placed, the server will check for a winner. If no winner is detected, the game continues. If a winner is detected, the game will end and the winner will be displayed on the screen. A popup screen will show with an option for the user to stay in the server or leave. The user will have 30 seconds to make their decision before getting kicked out, which will be displayed by a timer next to the rejoin server button. If no winner is found, but the game board is filled, then the total boxes will be tallied up and the winner will be chosen based on who has the most boxes won.

