

TIC TAC TOE

Use Case: Player joins matchmaking queue

Iteration: 1

Primary Actor: Player

Goal in Context: The player wants to quickly find an opponent by entering the Tic Tac Toe matchmaking system.

Preconditions:

- The player is logged in.
- The player has a valid account and an assigned MMR/rank for Tic Tac Toe.

Trigger: The player selects the “Join Queue” option from the Tic Tac Toe game interface.

Scenario:

1. The player clicks the “Join Queue” button.
2. The system verifies the player’s current Tic Tac Toe rank and MMR.
3. The system randomly assigns the player to one of the two queue pairs for their rank.
4. The player is added to the selected Tic Tac Toe matchmaking queue.

Postconditions: The player is now waiting in a Tic Tac Toe matchmaking queue for pairing.

Exceptions:

- Player is already in an active queue.
- Network/server issues prevent the queue join.

Priority: High

When Available: Always

Frequency of Use: High (each game session)

Channel to Actor: Tic Tac Toe client interface

Secondary Actors: Tic Tac Toe matchmaking service

Channel to Secondary Actors: N/A

Open Issues:

- Determining how to handle simultaneous queue join requests.

Use Case: MMR changes after a game completes

Iteration: 1

Primary Actor: Game/Player

Goal in Context: Update the player's MMR based on the outcome of a completed Tic Tac Toe game.

Preconditions:

- The Tic Tac Toe game has just finished.
- The game outcome (win, loss, or tie) is recorded.

Trigger: The Tic Tac Toe game has ended.

Scenario:

1. The game computes the result of the Tic Tac Toe game.
2. The system invokes the corresponding method on the player's Tic Tac Toe stats object.
3. The player's MMR is recalculated.
4. Updated MMR is stored and reflected in the player's profile and leaderboard.

Postconditions: The player's Tic Tac Toe MMR accurately reflects their recent game performance.

Exceptions:

- Errors in MMR calculation.

Priority: High

When Available: Always

Frequency of Use: Every Tic Tac Toe game completion.

Channel to Actor: Internal game processing.

Secondary Actors: Stats and leaderboard

Channel to Secondary Actors: N/A

Open Issues:

- Refine the formula used to update player ratings in Tic Tac Toe so that changes are smooth and fairly reflect performance differences.

