Use Case: Initialize Player Elo

Iteration: 1

Primary Actor: Player

Goal In Context: Initialize the elo to 0 for all new player accounts

Preconditions:
- The player has successfully registered and verified their account

Trigger: User finishes creating account

Scenario:
1. The player completes the registration process.
2. The system verifies the player's account.
3. The system initializes the player's elo to 0.
4. The player is notified that their account setup is complete**.**

Post-conditions:
- Account is initialized with elo of 0
- Player receives confirmation of account setup

Exceptions:
- Account verification fails
- System initialization fails

Priority: High, basic game function

When available: First increment

Frequency of use: Once per account (after they verify, it is not prompted again).

Channel to actor: Game interface

Secondary actors: N/A

Channel to secondary actors: N/A

Open issues:
- Handling of duplicate accounts
- Ensuring elo initialization is tamper-proof

Use Case: Matchmaking Queue

Iteration: 1

Primary Actor: Player

Goal In Context: Allow a player to join a matchmaking queue and be paired with an opponent of similar Elo rating

Preconditions:
- The player has logged into the multiplayer platform
- The player has a valid player profile and elo rating

Trigger: The player selects the "Join Matchmaking Queue" option

Scenario:
1. The player selects the matchmaking option.
2. The system searches the matchmaking queue for opponents with similar Elo ratings.
3. Once a match is found, the system notifies both players.
4. The game session is initialized.

Post-conditions:
- The player is paired with an opponent and starts a game.

Exceptions:
- No match is found, and the player remains in the queue until an appropriate opponent joins.

Priority: High

When available: First increment or iteration.

Frequency of use: Each time a player wants to play a match.

Channel to actor: Game interface

Secondary actors: Opponent Player

Channel to secondary actors: Game interface, matchmaking system.

Open issues:

- How long to keep players waiting in the queue if no suitable opponent is found?
- If no suitable opponent is found, how long till the player is assigned someone that is out of their elo rating range?

Use Case: Update Player Elo

Iteration: 1

Primary Actor: Player

Goal In Context: Update the player's elo based on the outcome of a match

Preconditions:
- Player has completed a match.

Trigger: Match ends and results are recorded.

Scenario:
1. The match concludes and the result is recorded.
2. The system calculates the elo change based on the match outcome.
3. The player's elo is updated accordingly.
4. The player is notified of their change in elo.

Post-conditions:
- Player's elo is updated.
- Player receives notification of the change in elo.

Exceptions:
- Match result is disputed
- System fails to update elo

Priority: High, basic game function

When available: First iteration

Frequency of use: After each match

Channel to actor: Game interface

Secondary actors: Opponent player

Channel to secondary actors: Game interface

Open issues:
- Ensuring accurate and fair elo calculations