Use case: “Start Game”

Initiating actor: Player

Pre-conditions: Player is logged in

Primary Scenario:

1. Player selects the “Start Game” option from the UI
2. Player selects to play against another player or against the AI
3. If Player selected to play against another player, they are entered into a lobby. If they have selected to play against the AI, they are taken to an options screen for the AI.
4. (opt). If the Player has selected to play against the AI, they may select additional options for the AI in terms of difficulty, the respective colors, and who starts.

Exceptions:

1. The Player’s login cookie has expired during the process and they are no longer a verified user. The following message is displayed:
   * *Login expired. You will be redirected to the login page shortly.*

2. The Player no longer wishes to start a game or wants to reset their decisions. Upon clicking “Return to Main Menu” the following message is displayed:

* + *Are you sure you want to leave? Yes No*

3. The Player somehow loses connection to the webpage. The system displays following message:

* *A network error has occurred. Please refresh the webpage.*

Post-conditions: The Player is entered into a matchmaking lobby if they have chosen to play against another player, or if they have chosen to play against the AI the game starts with the specified settings.

Benefiting Actor: Player

Use case: “Find Opponent”

Initiating actor: Player

Pre-conditions: Player is logged in and has selected to start a game against another Player

Primary Scenario:

1. Player is entered into the lobby
2. Player is given a choice to play against a friend or a random opponent
3. If the Player chooses to play against a friend, the friend is notified and connected to the Player upon acceptance. If the Player chose random, they are matched with another Player waiting in the lobby.
4. Both players agree to start the match, and are randomly assigned a color and turn order

Exceptions:

1. The Player’s login cookie has expired during the process and they are no longer a verified user. The following message is displayed:
   * *Login expired. You will be redirected to the login page shortly.*

2. The Player wishes to cancel the matchmaking process. Upon clicking “Return to Main Menu” the following message is displayed:

* + *Are you sure you want to leave? Yes No*

3. The Player being matched with refuses the invite or leaves the matchmaking for whatever reason. The following message is displayed before resetting the process:

* *Your opponent has left or refused to play.*

4. The Player loses connection to the webpage. The following message is displayed:

* *A network error has occurred. Please refresh the webpage.*

Post-conditions: Player is in a game against their matched opponent

Benefiting Actor: Player

Use case: “End Game”

Initiating actor: Player

Pre-conditions: Player is logged in and currently in a game

Primary Scenario:

1. A Player or the AI wins the game
2. The winner is displayed, if any, and the appropriate win and games played statistics are updated
3. The Player is prompted to request a rematch against the Player or AI, go back to the lobby if playing player versus player, or quit

Exceptions:

1. Player willingly leaves a match partway. System ends game and presents a message to remaining Player:
   * *Your opponent has forfeited, you win by default.*
   * *Would you like to: Quit? Return to lobby?*

The Player who is leaving is presented the following message on exit:

* + *If you leave the game now it will be recorded as a loss.*
  + *Would you like to forfeit? Yes No*

1. A Player has stopped responding or neglected to make a move within a two minute time span. The system displays the following message at one minute:
   * *You have one minute to make a move or the match will be presumed forfeited.*

3. A fatal connectivity error occurs during the match. System displays following message:

* *A network error has occurred. The match will be ended without a winner.*
* *Would you like to: Quit? Return to lobby?*

4. Player wants to request a rematch but the other Player has already declined them or quit. System displays following message:

* *Your opponent is unavailable for a rematch.*
* *Would you like to: Quit? Return to lobby?*

Post-conditions: Player is no longer in a game

Benefiting Actor: Player