Initiating a Connect Four Game

Iteration: 3

Primary Actor: Player

Goal in Context: Starting a game with another player

Preconditions: The player is logged in

Trigger: The player selects Connect Four and clicks play

Scenario:

      1. The game matches another player of similar skill level

      2. The connect four board is created

      3. The UI displays the game board to both players

      4. A player is selected to start

Postcondition: The selected game is ready to play for both players

Exceptions:

      1. The player is matched to themself

Priority: High

When available: First release

Frequency of Use: High, once every game

Channel to actor: Network UI update

Secondary Actors: Game host server

Channel to secondary Actors: Network

Open Issues:

Initiating a Checkers Game

Iteration: 3

Primary Actor: Player

Goal in Context: Starting a game with another player

Preconditions: The player is logged in

Trigger: The player selects a game and clicks play

Scenario:

       1. The game matches another player of similar skill level

       2. The checkers board is created

       3. The checkers are instantiated into their correct positions

       4. The UI displays the game board to both players

       5. A player is selected to start

Postcondition: The selected game is ready to play for both players

Exceptions:

       1. The player is matched to themself

Priority: High

When available: First release

Frequency of Use: High, once every game

Channel to actor: Network UI update

Secondary Actors: Game host server

Channel to secondary Actors: Network

Open Issues:

Initiating a Whist Game

Iteration: 3

Primary Actor: Player

Goal in Context: Starting a game with another player

Preconditions: The player is logged in

Trigger: The player selects a game and clicks play

Scenario:

       1. The game matches another player of similar skill level

       2. A player is selected to deal cards

       4. The UI displays the game board to both players

Postcondition: The selected game is ready to play for both players

Exceptions:

       1. The player is matched to themself

Priority: High

When available: First release

Frequency of Use: High, once every game

Channel to actor: Network UI update

Secondary Actors: Game host server

Channel to secondary Actors: Network

Open Issues:

Dropping a Checker (Connect 4)

Iteration: 3

Primary Actor: Active player

Goal in Context: The active player dropping their checker, completing their turn

Preconditions: A valid game is active

Triggers: The beginning of the game and the end of a turn that doesn't result in the end of the game.

Scenario:

      1. A game is initiated and validated

      2. Player 1 makes the first move

Postcondition: The move reflected in the UI and displayed to both players

Exceptions:

      1. The game is not valid, for example, a player is matched with themself

      2. A player quits or disconnects, ending the game.

      3. The selected column is full

Priority: High, this is the core of the Connect Four gameplay.

When available: First release.

Frequency of Use: High, used multiple times every game.

Channel to actor: Network UI update

Secondary Actors: Passive player, game host server

Channel to secondary Actors: Network

Open Issues:

<u>Moving a Checker (Checkers)</u>

Iteration: 3

Primary Actor: Active Player

Goal in Context: The active player moves their piece to a different square in accordance with

the rules of the game

Preconditions: A valid game is active

Trigger: The beginning of the game and the end of a turn that doesn't result in the end of

the game.

Scenario:

      1. A game is initiated and validated

      2. Player 1 makes the first move

Postcondition: The move reflected in the UI and displayed to both players

Exceptions:

      1. The game is not valid; for example, a player is matched with themself.

      2. A player quits or disconnects, ending the game.

      3. The piece has no valid moves

3. Then checker has no legal moves

Priority: High, this is the core of the Checkers gameplay.

When available: First release.

Frequency of Use: High, used multiple times every game.

Channel to actor: Network UI update

Secondary Actors: Passive player, game host server

Channel to secondary Actors: Network

Open Issues:

Promoting to a King (Checkers)

Iteration: 3

Primary Actor: Active player

Goal in Context: The active player promotes one of their men to a King

Preconditions: A valid game is active

Trigger: A man reaches the opposite end of the board

Scenario:

      1. Active player moves a man to the opposite end row

      2. Active player's piece is changed to a King

Postcondition: The move and promotion reflected in the UI and displayed to

both players

Exceptions:

      1. The game is not valid; for example, a player is matched with themself.

      2. A player quits or disconnects, ending the game.

      3. The player has a forced capture

      4. The player has no valid moves

Priority: High, this is a core mechanic of Checkers gameplay.

When available: First release.

Frequency of Use: High, used a few times a game.

Channel to actor: Network UI update

Secondary Actors: Passive player, game host server

Channel to secondary Actors: Network

Open Issues:

Deal Cards (Whist)

Iteration: 3

Primary Actor: Active Player

Goal in Context: The active player deals 13 cards to both players

Preconditions: A valid game is active

Trigger: The game has just been initiated

Scenario:

      1. A game has been initiated

      2. The selected dealer deals 13 cards to both players

      3. The trump card is left face up

Postcondition: The remaining deck has 26 less cards, each player has 13 cards, the trump card is known to each player, it is the dealers turn and all of this is reflected in the UI

Exceptions:

      1. The active player has no cards to play

Priority: High, this is a core feature of the game

When available: First release.

Frequency of Use: High, used many times in a game.

Channel to actor: Network UI update

Secondary Actors: Passive player, game host server

Channel to secondary Actors: Network

Open Issues:

Play a Card (Whist)

Iteration: 3

Primary Actor: Active Player

Goal in Context: The active player plays a card from their hand

Preconditions: A valid game is active, it is the active player's turn

Trigger: A player clicks a card in their hand on their turn

Scenario:

      1. Active player has a turn in the game

      2. Active player selects a card to play

      3. Active player plays their card

Postcondition: The player has one less card in their hand, their card is on the table

Exceptions:

      1. The active player has no cards to play

Priority: High, this is a core feature of the game

When available: First release.

Frequency of Use: High, used many times in a game.

Channel to actor: Network UI update

Secondary Actors: Passive player, game host server

Channel to secondary Actors: Network

Open Issues:

<u>Win Trick (Whist)</u>

Iteration: 3

Primary Actor: Active Player

Goal in Context: The active player receives the trick that has just been won

Preconditions: A valid game is active

Trigger: Both players finish a trick

Scenario:

       1. Active player has contributed to a trick in the drafting stage

       2. The trick is concluded from both parties contributing

       3. The active player receives the trick

Postcondition: The number of tricks for the active player increases by one and the board is cleared up for a new trick to be played

Exceptions:

       1. The draw pile is empty

Priority: High, this is a core feature of the game

When available: First release.

Frequency of Use: High, used many times in a game.

Channel to actor: Network UI update

Secondary Actors: Passive player, game host server

Channel to secondary Actors: Network

Open Issues:

Draw a Card (Whist)

Iteration: 3

Primary Actor: Active Player

Goal in Context: The active player draws a card from the draw pile

Preconditions: A valid game is active, the game is in the drafting stage

Trigger: A player finishes a trick during the drafting stage

Scenario:

      1. Active player has contributed to a trick in the drafting stage

      2. The trick is concluded from both parties contributing

      3. Active player draws a card from the deck

Postcondition: The player has one more card in their hand, the draw pile

is one card smaller

Exceptions:

      1. The draw pile is empty

Priority: High, this is a core feature of the game

When available: First release.

Frequency of Use: High, used many times in a game.

Channel to actor: Network UI update

Secondary Actors: Passive player, game host server

Channel to secondary Actors: Network

Open Issues:

Check for Win (Connect Four)

Iteration: 3

Primary Actor: Active player

Goal in Context: Displaying to all players that the game is over, and if they lost, won or drew.

Preconditions: A game is active

Trigger: A turn ends

Scenario:

      1. A turn ends

      2. The game checks for a four in a row

Postcondition: If there is a win end the game, if not then start a new turn

Exceptions: The turn has not ended

Priority: High

When available: First release

Frequency of Use: High, used every game

Channel to actor: Network

Secondary Actors: Passive players, game logic server

Channel to secondary Actors: Network

Open Issues:

Check for Win (Checkers)

Iteration: 3

Primary Actor: Active player

Goal in Context: Displaying to all players that the game is over, and if they lost, won or drew.

Preconditions: A game is active

Trigger: A turn ends

Scenario:

      1. A turn ends

      2. The game checks if the opponent has no valid move

Postcondition: If there is a win end the game, if not then start a new turn

Exceptions: The turn has not ended

Priority: High

When available: First release

Frequency of Use: High, used every game

Channel to actor: Network

Secondary Actors: Passive players, game logic server

Channel to secondary Actors: Network

Open Issues:

Check for Win (Whist)

Iteration: 3

Primary Actor: Active player

Goal in Context: Displaying to all players that the game is over, and if they lost, won or drew.

Preconditions: A game is active

Trigger: Both players have no cards left

Scenario:

1. The corresponding tricks over six are added to each player's total
2. The game checks if someone has reached 6 tricks

Postcondition: If there is a win end the game, if not then start a new round

Exceptions: The turn has not ended

Priority: High

When available: First release

Frequency of Use: High, used every game

Channel to actor: Network

Secondary Actors: Passive players, game logic server

Channel to secondary Actors: Network

Open Issues:

End Game

Iteration: 3

Primary Actor: Active player

Goal in Context: Displaying to all players that the game is over, and if they lost, won or drew.

Preconditions: A game is active

Trigger: A winning, losing, or drawing move, or a player quits

Scenario:

       1. The server detects that the game is over

       2. The players' stats are updated

       3. The UI displays to all players whether they won, drew or lost

       4. The UI displays the option to leave the game

Postcondition: The game is over

Exceptions: The game will always end

Priority: High

When available: First release

Frequency of Use: High, used every game

Channel to actor: Network

Secondary Actors: Passive players, game logic server

Channel to secondary Actors: Network

Open Issues: