

## Use Case Descriptions:

1. User clicks back button
2. Start game
3. View other person's profile
4. Manage your profile
5. View leaderboard
6. View game history
7. Playing chess
8. Playing connect 4
9. Playing tic tac toe

### 1. USE CASE: USER CLICKS BACK BUTTON

**Primary Actor:** Player

**Goal in Context:** Allowing the player to go back to the previous screen

**Preconditions:** Player is currently viewing a screen other than the initial starting screen

**Trigger:** Clicking on the back button on the corner of the screen

**Scenario:**

- Player wants to go back to the previous screen
  - Player clicks on the back button which is located somewhere on the corner of the screen
  - Player is taken back to the previous screen.

**Postcondition:** Player is now in the previous screen

**Exceptions:** Player is at a screen which does not have a previous screen, such as the initial starting screen

**Priority:** High (allows player to go back)

**When Available:** Second Iteration

**Frequency of Use:** High

**Channel to Actor:** Players' interaction with the back button on screen

**Secondary Actors:** N/A

**Channel to Secondary Actors:** N/A

**Open Issues:** N/A

## 2. USE CASE: START GAME

**Primary Actor:** Player

**Goal in Context:** Allows the player to get into the game and play

**Preconditions:** Player is currently on the main screen for any of the three games

**Trigger:** Player clicks on the start game or play game button

**Scenario:**

- Player clicks on the start game button present on screen
- Player is redirected to a screen where it shows “CONNECTING...” (If necessary)
- Player is then matched against another player and the game will start playing

**Postcondition:** The game has started, and the players are playing

**Exceptions:** The player could not be connected to someone else due to some issue

**Priority:** High (Player needs to have an option to play)

**When Available:** Second Iteration

**Frequency of Use:** Multiple times

**Channel to Actor:** Players’ interaction with the play button on the screen

**Secondary Actors:** N/A

**Channel to Secondary Actors:** N/A

**Open Issues:** N/A

## 3. USE CASE: USER PLAYING CONNECT 4

**Primary Actor:** Player

**Goal in Context:** Letting the player play connect 4

**Precondition:** The game is successfully connected with another player to play against

**Trigger:** Player clicks on the play button in the connect 4 game screen

**Scenario:**

- Player is connected with another player against them.
- First turn randomly given to any of the 2 players
- Player can move across the board to see where he can place his coin
- Player clicks on an empty slot and the piece moves to the bottom of that column.
- After a turn the next player gets his turn and it continues until 4 pieces of a color are aligned (horizontal, vertical or diagonal) or there is a draw.

**Postcondition:**

- One of the players wins the match and gets a winning screen.
- The player who lost gets the losing screen
- If draw, both players will get a draw screen.

- Both players will then be taken to the home screen of the game.

**Exception:** Player selects to re-challenge the opponent and the match is then played again.

**Priority:** High

**Frequency of Use:** High

**Channel to Actor:** Players' interaction with the play/re-challenge button

#### 4. USE CASE: USER PLAYING TIC TAC TOE

**Primary Actor:** Player

**Goal in Context:** Letting the player play tic tac toe

**Precondition:** The game is successfully connected with another player to play against

**Trigger:** Player clicks on the play button in the tic tac toe game screen

**Scenario:**

- Player is connected with another player against them.
- X and O are given randomly to the players.
- Player with X goes first and clicks on the grid to place their mark.
- Next player gets the turn and places their mark
- Repeats until 3 of the same mark is aligned (horizontal, vertical or diagonal) or there is a draw.

**Postcondition:**

- One of the players wins the match and gets a winning screen.
- The player who lost gets the losing screen
- If draw, both players will get a draw screen.
- Both players will be then taken to the home screen of the game.

**Exception:** Player selects to re-challenge the opponent and the match is then played again.

**Priority:** High

**Frequency of Use:** High

**Channel to Actor:** Players' interaction with the play/re-challenge button.

#### 5. USE CASE: USER PLAYING CHESS

**Primary Actor:** Player

**Goal in Context:** Letting the player play chess

**Precondition:** The game is successfully connected with another play to play against

**Trigger:** Player clicks on the play button in the chess game screen

**Scenario:**

- Player is connected with another player against them
- Black and white side randomly given to a player.
  - Player with the white pieces moves first.
  - The player with black pieces gets the next turn and the cycle repeats.
  - The game ends when a checkmate has occurred, or a draw has occurred.

**Postconditions:**

- One of the players wins the match and gets a winning screen.
- The player who lost gets the losing screen
- If draw, both players will get a draw screen.
- Both players will then be taken to the home screen of the game.

**Exception:** Player selects to re-challenge the opponent and the match is played again.

**Priority:** High

**Frequency of Use:** High

**Channel to Actor:** Players' interaction with the play/re-challenge button.

## **6. USE CASE: VIEW LEADERBOARD**

**Primary Actor:** Player

**Goal in Context:** Allows players to view the ranking of top players on the leaderboard.

**Preconditions:** Player is logged in and navigates to the leaderboard screen.

**Trigger:** Player clicks on the "Leaderboard" option in the menu.

**Scenario:**

- Player selects "Leaderboard" from the menu.
- System displays the leaderboard with a list of top-ranked players, including their ranks, usernames, and scores.

**Postcondition:** Player views the leaderboard.

**Exceptions:** Leaderboard fails to load due to server error.

**Priority:** High

**Frequency of Use:** High

**Channel to Actor:** Player's interaction with the leaderboard option.

## **7. USE CASE: MANAGE YOUR PROFILE**

**Primary Actor:** Player

**Goal in Context:** Allowing the player to edit their own profile details, such as username or avatar.

**Preconditions:** Player is logged in and on their profile screen.

**Trigger:** Player clicks on the “Edit Profile” button.

**Scenario:**

- Player accesses their profile.
- Player clicks on the “Edit Profile” option.
- Player updates profile details and saves changes.
- System confirms and displays updated profile information.

**Postcondition:** Profile changes are saved, and the player sees the updated profile.

**Exceptions:** Profile changes fail to save due to a connection error.

**Priority:** High

**Frequency of Use:** Moderate

**Channel to Actor:** Player’s interaction with the Edit Profile button.

## 8. USE CASE: VIEW GAME HISTORY

**Primary Actor:** Player

**Goal in Context:** Allows players to view their game history, including past matches and outcomes.

**Preconditions:** Player is logged in and has completed at least one game.

**Trigger:** Player clicks on the “Game History” option in the profile or main menu.

**Scenario:**

- Player selects “Game History” from the profile or menu.
- System displays a list of past matches, showing opponents, dates, and outcomes (win/loss/draw).

**Postcondition:** Player views their game history.

**Exceptions:** Game history fails to load due to server error.

**Priority:** Medium

**Frequency of Use:** Moderate

**Channel to Actor:** Player’s interaction with the game history option.