### **Use Case: Sign In**

**Iteration**: 1

**Primary Actor**: User

**Goal in Context**: Allows the user to log in to the system with a username and password for personalized access.

**Preconditions**: The application is running, and the user is on the main menu screen.

**Trigger**: The user inputs a username and password and clicks the "Sign In" button.

**Scenario**:

1. The user inputs their username and password.
2. The user clicks the "Sign In" button.
3. The system validates the entered credentials.
4. If the credentials are correct, the system displays a success message, updates the sign-in status label, and allows further interactions.
5. If the credentials are incorrect or empty, an error message is shown.

**Post Conditions**: The user is either successfully logged in, or they receive feedback if there was an issue.

**Exceptions**:

* The username or password fields are left empty.
* The credentials provided are incorrect.

**Priority**: High priority, as it enables user-specific access and personalization.

**When Available**: Within its 1st iteration.

**Frequency of Use**: Once per session or as needed for switching users.

**Channel to Actor**: User interacts with the text fields and clicks the "Sign In" button on the screen.

**Secondary Actors**: N/A

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

**Open Issues**: N/A

### **Use Case: Choose a Game**

**Iteration**: 1

**Primary Actor**: User

**Goal in Context**: Allows the user to select a game to play from the available options.

**Preconditions**: The user must be on the main menu screen.

**Trigger**: The user clicks the "Choose a Game" button.

**Scenario**:

1. The user clicks the "Choose a Game" button.
2. The system displays a screen with options for available games (e.g., Tic-Tac-Toe, Connect 4).

**Post Conditions**: The user is presented with a game selection screen.

**Exceptions**:

* The application fails to load the game selection screen due to an error.
* **Priority**: Medium priority, as it provides access to game functionality.

**When Available**: Within its 1st iteration.

**Frequency of Use**: Multiple times per session if the user chooses to explore different games.

**Channel to Actor**: User clicks the "Choose a Game" button on the screen.

**Secondary Actors**: N/A

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

**Open Issues**: N/A

### **Use Case: Show Game Menu**

**Iteration**: 1

**Primary Actor**: User

**Goal in Context**: Allows the user to navigate to a screen where they can choose a game to play.

**Preconditions**: The application must be running, and the user must be on the main menu screen.

**Trigger**: The user clicks the "Choose a Game" button.

**Scenario**:

1. The user clicks the "Choose a Game" button.
2. The application displays the game selection menu with available game options such as Tic-Tac-Toe and Connect 4.
3. The user can click on any game button to proceed.

**Post Conditions**: The game selection screen is displayed, allowing the user to choose a game.

**Exceptions**:

* The screen fails to load due to an error in the system.

**Priority**: Medium priority, as it facilitates access to game-playing features.

**When Available**: Within its 1st iteration.

**Frequency of Use**: Once or multiple times per session, depending on user preference.

**Channel to Actor**: User clicks the button on the main menu screen.

**Secondary Actors**: N/A

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

**Open Issues**: N/A

### **Use Case: Show Settings Menu**

**Iteration**: 1

**Primary Actor**: User

**Goal in Context**: Provides the user with an option to access application settings.

**Preconditions**: The user must be on the main menu screen.

**Trigger**: The user clicks the "Settings" button.

**Scenario**:

1. The user clicks the "Settings" button.
2. The application displays the settings screen.
3. The user can adjust settings as needed (placeholder for future enhancements).

**Post Conditions**: The settings screen is shown, allowing the user to review or adjust settings.

**Exceptions**:

* The settings screen fails to load due to an internal error.

**Priority**: Low priority, as it is an auxiliary feature.

**When Available**: Within its 1st iteration.

**Frequency of Use**: As needed by the user for configuration purposes.

**Channel to Actor**: User interacts with the button on the main menu screen.

**Secondary Actors**: N/A

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

**Open Issues**: N/A

### **Use Case: Show Help Menu**

**Iteration**: 1

**Primary Actor**: User

**Goal in Context**: Allows the user to access help or information about using the application.

**Preconditions**: The user must be on the main menu screen.

**Trigger**: The user clicks the "Help" button.

**Scenario**:

1. The user clicks the "Help" button.
2. The help screen is displayed, providing information or instructions.
3. The user can read the information and click "Back to Main Menu" to return.

**Post Conditions**: The user can access and review help content.

**Exceptions**:

* The help screen fails to load due to an error.

**Priority**: Medium priority, as it aids users who need assistance.

**When Available**: Within its 1st iteration.

**Frequency of Use**: As needed by the user for reference or assistance.

**Channel to Actor**: User clicks the button on the main menu screen.

**Secondary Actors**: N/A

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

**Open Issues**: N/A

### **Use Case: Handle Move in Tic-Tac-Toe Game**

**Iteration**: 1

**Primary Actor**: User

**Goal in Context**: Allows the user to make a move in the Tic-Tac-Toe game.

**Preconditions**: The user must be on the Tic-Tac-Toe game screen.

**Trigger**: The user clicks a cell on the game board.

**Scenario**:

1. The user clicks an available cell on the game board.
2. The system marks the cell with the current player's symbol (X or O).
3. The system checks if the move results in a win or draw.
4. If a win is detected, the system displays a win alert and resets the board.
5. If a draw is detected, the system displays a draw message and resets the board.
6. If no win or draw is detected, the turn switches to the other player.

**Post Conditions**: The game state updates with the user's move, and the game progresses.

**Exceptions**:

* The cell is already marked and cannot be selected.

**Priority**: High priority, as it is essential for game play.

**When Available**: Within its 1st iteration.

**Frequency of Use**: Multiple times per game session.

**Channel to Actor**: User clicks a button on the game board.

**Secondary Actors**: N/A

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

**Open Issues**: N/A

### **Use Case: Show Win Alert**

**Iteration**: 1

**Primary Actor**: User

**Goal in Context**: Notifies the user when a player wins the Tic-Tac-Toe game.

**Preconditions**: The user must be playing a game, and a win condition must be detected.

**Trigger**: The system detects a winning combination.

**Scenario**:

1. The system checks for a winning condition after a move.
2. If a win is detected, an alert is shown with the winning player's name.
3. The user is given options to either play again or exit.
4. If the user chooses to play again, the board is reset.
5. If the user chooses to exit, the application closes.

**Post Conditions**: The user is informed of the game result and can choose to continue or exit.

**Exceptions**:

* The alert fails to display due to an internal error.

**Priority**: High priority, as it is crucial for game result notification.

**When Available**: Within its 1st iteration.

**Frequency of Use**: Once per game when a win condition is met.

**Channel to Actor**: System displays an alert on the screen.

**Secondary Actors**: N/A

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

**Open Issues**: N/A

### **Use Case: Send Message in Chat**

**Iteration**: 1

**Primary Actor**: User

**Goal in Context**: Allows the user to send a message in the chat area of the Tic-Tac-Toe game.

**Preconditions**: The user must be on the Tic-Tac-Toe game screen with the chat feature visible.

**Trigger**: The user types a message and presses "Enter" or clicks the "Send" button.

**Scenario**:

1. The user types a message in the chat input field.
2. The user presses "Enter" or clicks the "Send" button.
3. The system appends the message to the chat area.
4. The input field is cleared for the next message.

**Post Conditions**: The message is displayed in the chat area.

**Exceptions**:

* The input field is empty, and no message is sent.

**Priority**: Low priority, as it is an additional feature for interaction.

**When Available**: Within its 1st iteration.

**Frequency of Use**: Multiple times per game session as desired by the user.

**Channel to Actor**: User types and clicks the "Send" button or presses "Enter".

**Secondary Actors**: N/A

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

**Open Issues**: N/A