1 Use Case: Friend System

Iteration: 1 **Primary Actor:** User **Goal in Context:** Allow users to add, remove, and manage friends. **Preconditions:**

1. The user is logged in.

Trigger: The user navigates to the "Friends" section.

Scenario:

- 1. The user accesses the "Friends" section.
- 2. The user searches for a friend using their username.
- 3. The system displays matching users.
- 4. The user selects a user and sends a friend request.
- 5. The recipient receives a notification and accepts/declines the request.
- 6. If accepted, the users are added to each other's friend lists.

Post Conditions:

• The friend request is successfully sent and added to the friend list if accepted.

Exceptions:

- 1. The searched user does not exist.
- 2. The recipient declines the friend request.
- 3. There is a network or system error.

Priority: Medium – Encourages social interaction. **When Available:** Within the first development iteration. **Frequency of Use:** Occasionally. **Channel to Actor:** GUI interface via keyboard and mouse/touchscreen. **Secondary Actors:** Database for storing friend lists. **Channel to Secondary Actors:** System interacts with the database via queries.

Open Issues:

- 1. Should there be a blocking feature?
- 2. Should there be friend request limits?

2 Use Case: Invite to Game

Iteration: 1 **Primary Actor:** User **Goal in Context:** Allow users to invite friends to join a game session. **Preconditions:**

- 1. The user is logged in.
- 2. The user has friends added to their account.

Trigger: The user wants to invite a friend to a game.

Scenario:

- 1. The user selects a game.
- 2. The user opens the friends list and selects a friend.
- 3. The system sends an invitation to the selected friend.
- The invited friend receives a notification.
- 5. If accepted, the friend is added to the game session.

Post Conditions:

The invited friend successfully joins the game.

Exceptions:

- 1. The friend declines or does not respond to the invite.
- 2. The friend is already in another game.
- 3. There are connection or system issues.

Priority: Medium – Enhances social gameplay. **When Available:** Within the first development iteration. **Frequency of Use:** Occasionally. **Channel to Actor:** GUI interface via keyboard and mouse/touchscreen. **Secondary Actors:** Game server for matchmaking. **Channel to Secondary Actors:** System interacts with the game server via network communication. **Open Issues:**

- 1. Should there be a time limit for accepting invites?
- 2. Should there be an auto-join option for specific friends?

3 Use Case: Report User

Iteration: 1 **Primary Actor:** User **Goal in Context:** Allow users to report other users for inappropriate behavior. **Preconditions:**

- 1. The user is logged in.
- 2. The user encounters another user violating community guidelines.

Trigger: The user selects the "Report" option.

Scenario:

- 1. The user clicks the "Report" button on another user's profile or chat.
- 2. The system displays a report form with reasons for reporting (e.g., harassment, cheating).
- 3. The user selects a reason and submits the report.
- 4. The system logs the report and forwards it to moderators.
- 5. The system confirms that the report has been submitted.

Post Conditions:

The report is logged, and moderators can review it.

Exceptions:

- 1. The system fails to submit the report due to an error.
- 2. The user reports someone without valid reason (false report).

Priority: Medium – Essential for community management. **When Available:** Within the first development iteration. **Frequency of Use:** Rare. **Channel to Actor:** GUI interface via keyboard and mouse/touchscreen. **Secondary Actors:** Moderation system or admin panel. **Channel to Secondary Actors:** System stores reports in a database. **Open Issues:**

- 1. Should there be penalties for false reports?
- 2. Should users receive updates on report outcomes?

4 Use Case: Achievements

Iteration: 1 **Primary Actor:** User **Goal in Context:** Allow users to unlock and track achievements. **Preconditions:**

1. The user is logged in.

Trigger: The user meets the conditions for an achievement.

Scenario:

- 1. The user performs an action that qualifies for an achievement.
- 2. The system checks if the achievement is unlocked.
- 3. If unlocked, the system notifies the user.
- 4. The achievement is added to the user's profile.

Post Conditions:

The user sees the new achievement on their profile.

Exceptions:

The system fails to record the achievement due to a technical issue.

Priority: Medium – Increases player engagement. **When Available:** Within the first development iteration. **Frequency of Use:** Occasionally. **Channel to Actor:** GUI interface via keyboard and mouse/touchscreen. **Secondary Actors:** Database for storing achievements. **Channel to Secondary Actors:** System interacts with the database via queries. **Open Issues:**

- 1. Should achievements grant in-game rewards?
- 2. Should there be hidden achievements?

5 Use Case: User Customization

Iteration: 1 **Primary Actor:** User **Goal in Context:** Allow users to customize their profile and interface settings. **Preconditions:**

1. The user is logged in.

Trigger: The user navigates to the customization settings.

Scenario:

- 1. The user accesses profile settings.
- 2. The user updates avatar, theme, or other customization options.
- 3. The system saves and applies the changes.

Post Conditions:

The user's customizations are updated and visible.

Exceptions:

1. The system fails to save changes due to an error.

Priority: Medium – Enhances user experience.

6 Use Case: Notifications System

Iteration: 1 **Primary Actor:** System **Goal in Context:** Notify users about friend requests, game invites, achievements, and reports. **Preconditions:**

1. The user is logged in.

Trigger: A notification-worthy event occurs.

Scenario:

- 1. A relevant event happens (e.g., new friend request, game invite).
- 2. The system generates a notification.
- 3. The user receives the notification via the interface.

Post Conditions:

• The user is informed of the event.

Exceptions:

1. The notification system fails due to an error.

Priority: High – Essential for user engagement.