Advanced Software Engineering Requirements

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School of Business Informatics and Mathematics

Project Overview

■ TokTokToe Online

Game	Players	Rules
TikTakToe	2	See rule book

■ Implementation as a graphical desktop application (JavaFX recommendation)

■ Multi-Player network game (Java-Sockets or similar)

    ■ Game Lobby including player statistics, chat

■ "AI" Player(s), hard and easy

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Requirements Use Case Overview
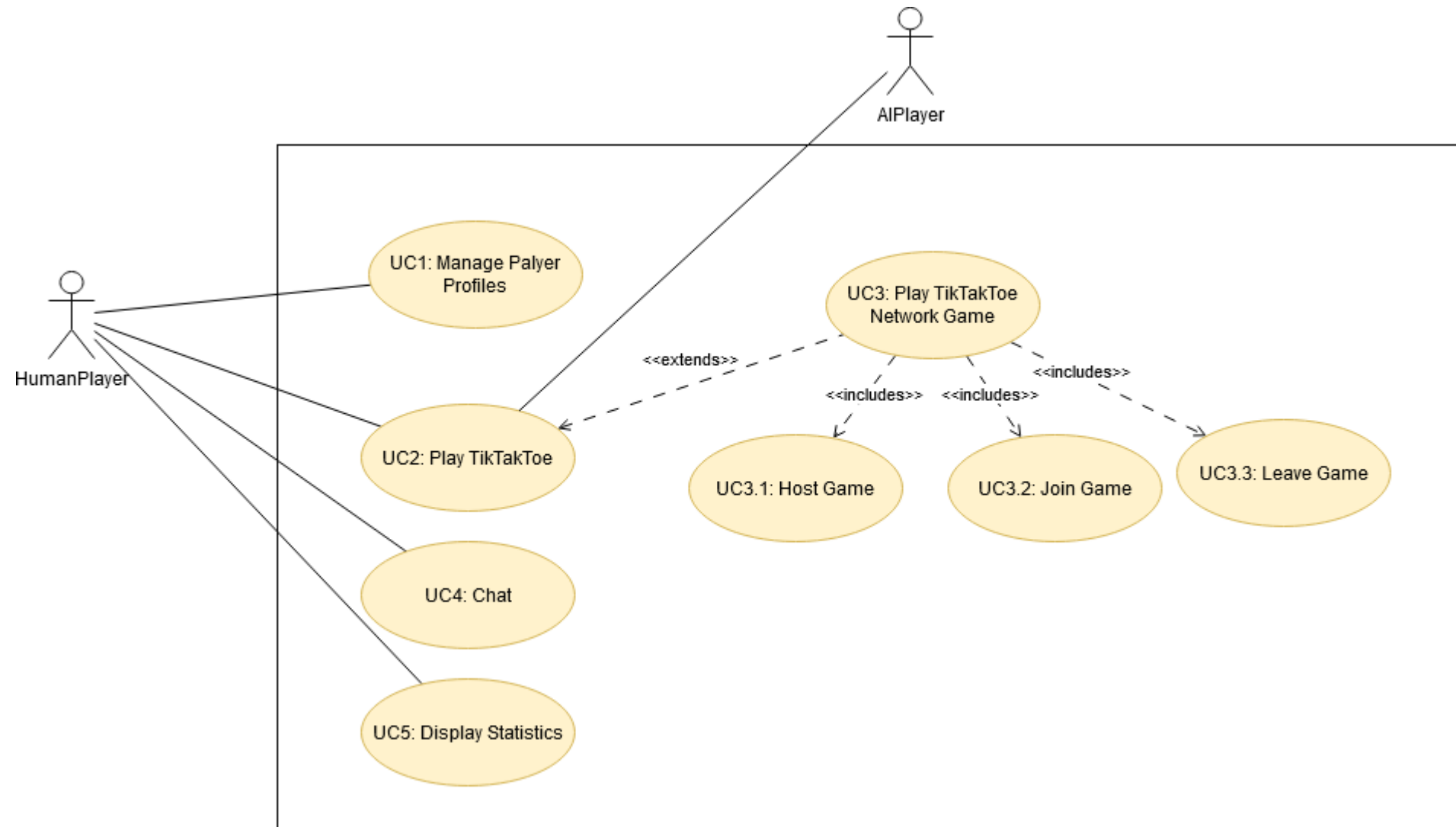
Functional Requirement Specification

Use Case	Description
UC1: Manage Player Profiles	Create, read, update, delete player profiles
UC2: Play TikTakToe	Play TikTakToe game (according to the game's rulebook)
UC3: Play Network Game	Play network game with remote players.
UC3.1: Host Game	Host a network game and publish „connection details" (no dedicated server! i.e. no externally hosted server). This use case includes game lobby details such as displaying statistics/leaderboard!
UC3.2: Join Game	Join a hosted network game/lobby (manual host entry AND optional: automatic host detection)
UC3.3: Leave Game	Leave network game/lobby (i.e., client disconnect)
UC4: Chat	Receive and send plain text messages (game lobby)
UC5: Display Statistics	Display the game statistics for every player that played on the game server.

Requirements

- Non-Functional Requirements
    - UI Language: English
    - NF.1: Usability / User Experience
        - NF1.1: Frustration-free game play (i.e., user experience) →human player is informed why certain actions cannot be performed

- (Functional) Features
    - F.1: Cover the *entire* rulebook (i.e., business logic)
    - F.2: At least <u>two</u> AI player strategies (e.g., easy & difficult)
    - F.3: Hosted game lobby presents statistics → related to UC3 & UC 5

- Technical Requirements
    - We share a (working) document of allowed libraries (on a per-request basis!)
    - Local development environment (IDE): Eclipse (recommended), IDEA …

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