**Project Sprint #1**

The SOS game is described in CS449HomeworkOverview.docx. You should read the description very carefully.

In this assignment, you aim to specify the requirements (i.e., user stories and acceptance criteria) of the target software that allows a human player to play a simple or general SOS game against a human opponent. These requirements will be fully implemented by the end of sprint 3. The minimum features include **choosing the board size,** **choosing the game mode (simple or general)**, **starting a new game**, **making a move (in a simple or general game)**, **determining if a simple or general game is over**. The following is a sample GUI layout.

|  |  |  |
| --- | --- | --- |
| SOS Icon  Description automatically generated Simple game Icon  Description automatically generated General game Board size  8 | | |
| Blue player  Icon  Description automatically generated S  Icon  Description automatically generated O | Chart, line chart  Description automatically generated | Red player  Icon  Description automatically generated S  Icon  Description automatically generated O |
|  | Current turn: blue (or red) | New Game |

Figure 1. Sample GUI layout of the first working program by the end of Sprint 3

Use the following tables to document your user stories and acceptance criteria.

You are required to use the free ChatGPT or another LLM to complete 2 user stories and 2 of their respective acceptance criteria. You must ensure that the generated user stories are correct and fix them if not. At the end of the submission, provide screenshots of your LLM prompts and answers, along with the description of errors the LLM made that you had to correct. Points will be deducted if no screenshots/description are provided.

A screenshot of a black screen

AI-generated content may be incorrect.

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AI-generated content may be incorrect.

1. **User Stories (3 points)**

* **User Story Template**: As a <role>, I want <goal> [so that <benefit>]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **User Story Name** | **User Story Description** | **Priority** | **Estimated effort (hours)** |
| 1 | Choose a board size | As a player, I want to select the board size before the game starts so that I can play on a grid of my preferred difficulty level. | High | 2 |
| 2 | Choose the game mode of a chosen board | As a player, I want to choose between Simple and General game modes so that I can play using the rules I prefer. | High | 2 |
| 3 | Start a new game of the chosen board size and game mode | As a player, I want to start a new game with the chosen board size and game mode so that I can begin playing. | High | 1 |
| 4 | Make a move in a simple game | As a player, I want to place an "S" or "O" on the board during my turn in a Simple Game so that I can participate in gameplay. | High | 3 |
| 5 | A simple game is over | As a player, I want the system to automatically detect when a Simple Game is over so that I know when the winner is declared. | High | 2 |
| 6 | Make a move in a general game | As a player, I want to place an "S" or "O" on the board during my turn in a General Game so that I can score points by forming SOS patterns. | High | 3 |
| 7 | A general game is over | As a player, I want the system to automatically detect when a General Game is over so that the final scores and the winner are displayed. | High | 2 |

1. **Acceptance Criteria (AC) (12 points): Add/delete rows as needed.**

|  |  |  |  |
| --- | --- | --- | --- |
| **User Story ID and Name** | **AC**  **ID** | **Description of Acceptance Criterion** | **Status (completed, toDo, inPprogress)** |
| 1. Choose a board size | 1.1 | **Given** the game setup screen is displayed, **when** the player selects a valid board size (e.g., 3x3, 5x5, 8x8, 10x10) **then** the system should display the game board with the chosen dimensions. | ToDo |
| 1.2 | **Given** the player has not selected a board size, **when** they attempt to start a new game, **then** the system should prompt them to select a size before proceeding. | ToDo |
| 2. Choose the game mode of a chosen board | 2.1 | **Given** the game setup screen is displayed, **when** the player selects “Simple Game,” **then** the system should configure the board for Simple Game rules. | ToDo |
| 2.2 | **Given** the game setup screen is displayed, **when** the player selects “General Game,” **then** the system should configure the board for General Game rules. | ToDo |
| 3. Start a new game | 3.1 | Given a board size and game mode have been selected, when the player clicks "Start New Game," then the system should initialize the game board with those settings. | ToDo |
| 3.2 | Given no board size or game mode has been selected, when the player clicks "Start New Game," then the system should prompt them to complete the setup first. | ToDo |
| 4. Make a move in a simple game | 4.1 | Given it is a player’s turn in Simple Game mode, when they select a cell and place either “S” or “O,” then the letter should appear in that cell. | ToDo |
| 4.2 | Given a cell is already occupied, when the player attempts to place a letter in that cell, then the system should not allow the move and tell the player to choose another cell. | ToDo |
| 5. A simple game is over | 5.1 | Given all cells on the board are filled in Simple Game mode, when no more moves are possible, then the system should automatically declare the winner or a tie. | ToDo |
| 5.2 | Given a player has won meaning he made a SOS in Simple Game mode, when the system verifies that there is a winner, then the system should end the game and display the winner. | ToDo |
| 6. Make a move in a general game | 6.1 | Given it is a player’s turn in General Game mode, when they place “S” or “O” in an empty cell, then the system should update the board with that letter. | ToDo |
| 6.2 | Given a move creates one or more SOS patterns in General Game mode, when the system verifies the move, then the system should increment that player’s score accordingly. | ToDo |
| 7. A general game is over | 7.1 | Given all cells on the board are filled in General Game mode, when no further moves are possible, then the system should declare the final score and the winner. | ToDo |
| 7.2 | Given both players have equal scores in General Game mode, when scores have been verified as a tie by the system, then the system should declare the game a tie. | ToDo |

1. **Corrections/Errors made by LLM**

 **Acceptance Criteria Id:** Added AC numbers such as 1.1 and 1.2 and aligned each with its story.

 **Formatting issues:** LLM output was plain text, I corrected by putting user stories and ACs into tables with proper columns.