4 Brief Use Cases

Use Case 3: Save and Load Game

Primary Actor: Player

Description: Allows players to save their progress and resume the game later.

Main Flow:

1. The player selects **"Save Game"** from the menu.

2. The System records the current board state, player scores, and turn order.

3. The player can later select **"Load Game"** to resume from the saved state.

4. The game reloads the saved data and resumes from the last turn.

Alternative Flows:

- If no saved game exists, the **"Load Game"** option is disabled.

- If an error occurs, the System **notifies the player** and prompts a retry.

Use Case 4: End Game & Declare Winner

Primary Actor: System

Description: Determines when the game ends and announces the winner.

Main Flow:

1. The System monitors game conditions (e.g., all stones placed, highest score reached).

2. If a winning condition is met, the System calculates **final scores**.

3. The System announces the **winner** and offers the option to start a **new game** or **exit**.

Alternative Flows:

- If multiple players are tied, the System applies **tie-breaking rules** (e.g., most high-value placements).

- If a player leaves mid-game and only one remains, that player **wins by default**.

Use Case 5: AI Turn Processing

Primary Actor: AI Player

Description: Controls how AI makes decisions based on difficulty settings.

Main Flow:

1. The AI rolls the dice.

2. The AI **analyzes valid moves** and selects the best available option.

3. The AI places a stone on the board.

4. The System updates scores and moves to the next turn.

Alternative Flows:

- If no valid move is available, the AI **ends its turn without placing a stone**.

- If AI difficulty is set to **Hard**, it prioritizes **strategic placements** over random ones.

Use Case 6: Enable Color Vision Deficiency Mode

Primary Actor: Player

Description: Allows visually impaired players to adjust the game's visuals for better accessibility.

Main Flow:

1. The player selects **"Accessibility Settings"** from the menu.

2. The player enables **Color Vision Deficiency Mode**.

3. The System adjusts colors, patterns, or labels to ensure clear differentiation.

4. The changes apply immediately, improving visual clarity.

Alternative Flows:

- If the player disables the mode, the game **reverts to default visuals**.

- If multiple colorblind modes exist, the player selects **their preferred mode**.