**Team Project Sprint #1**

Report Template

Team Name:

|  |  |  |  |
| --- | --- | --- | --- |
| **Information provided by the student team** | | **To be used by the grader** | |
| **Student name** | **Specific contributions to this sprint** | **Team Score** | **Individual Score** |
| Mannava Jyothi Krishna | Developed the game logic (game\_logic.py), including piece placement and mill detection. |  |  |
| Mannava Vignesh | Designed and implemented the graphical user interface (gui.py), ensuring an organized and visually appealing board layout. |  |
| Shaik Sumayya Fathima | Created and expanded automated test cases (test\_game.py) to validate game functionalities. And helped with (gui.py) |  |
| Shreya Saraf | Managed project integration, documentation, and coordinated team meetings. And also helped with (game\_logic.py) |  |

A student without specific contributions shall not receive credit.

1. **User Stories**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **User Story Name** | **User Story Description** | **Priority** | **Estimated effort (hours)** | **Actual effort (if completed)** | **Status (completed, toDo, inProgress)** | **Developer names** |
| 1 | Board Visualization | As a player, I want to see a clear and organized game board so that I can easily identify where to place my pieces. | High | 5 | 5 | Completed | Mannava Vignesh |
| 2 | Piece Placement | As a player, I want to place my pieces on the board so that I can participate in the game. | High | 8 | 8 | Completed | Mannava Jyothi Krishna, Mannava Vignesh |
| 3 | Invalid Move Handling | As a player, I want to receive an error message when I attempt to place a piece on an occupied position to prevent invalid moves. | Medium | 4 | 4 | Completed | Mannava Jyothi Krishna |
| 4 | Turn Switching | As a player, I want the game to switch turns after a successful move so that both players get an equal opportunity to play. | High | 3 | 3 | Completed | Mannava Vignesh, Shaik Sumayya Fathima |
| 5 | Mill Formation Detection | As a player, I want the game to detect when I form a mill so that I can remove an opponent's piece. | Medium | 5 | 5 | Completed | Mannava Vignesh,  Shreya Saraf |

1. **Acceptance Criteria (AC)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **User Story ID and Name** | **AC**  **ID** | **Description of Acceptance Criterion** | **Status (completed, toDo, inPprogress)** | **Developer Names** |
| 1. Board Visualization | 1.1 | **Given** the game starts, **When** the GUI is launched, **Then** the board should display all 24 positions in an organized and equidistant layout. | Completed | Mannava Vignesh |
|  | 1.2 | **Given** the board is displayed, **When** a player places a piece, **Then** the piece should appear at the selected position with the correct color. | Completed | Mannava Jyothi Krishna, Mannava Vignesh |
| 2. Piece Placement | 2.1 | **Given** it is a player's turn, **When** the player clicks on an empty position, **Then** a piece should be placed at that position, and the turn should switch to the other player. | Completed | Mannava Jyothi Krishna |
|  | 2.2 | **Given** a player has placed all 9 pieces, **When** the player attempts to place another piece, **Then** an error message should be displayed indicating no pieces left to place. | Completed | Mannava Vignesh, Shaik Sumayya Fathima |
| 3. Invalid Move Handling | 3.1 | **Given** a position on the board is already occupied, **When** a player attempts to place a piece on that position, **Then** the game should prevent the move and display an error message. | Completed | Mannava Vignesh |
| 4. Turn Switching | 4.1 | **Given** a player successfully places a piece, **When** the move is completed, **Then** the turn should switch to the opposing player. | Completed | Mannava Vignesh, Shreya Saraf |
| 5. Mill Formation Detection | 5.1 | **Given** a player places a piece that completes a mill, **When** the mill is formed, **Then** the player should be prompted to remove an opponent's piece. | Completed | Mannava Jyothi Krishna, Shreya Saraf |
|  | 5.2 | **Given** a mill has been formed, **When** the player removes an opponent's piece, **Then** the opponent's piece should be removed from the board, and the turn should switch. | Completed | Mannava Jyothi Krishna, Shreya Saraf |

1. **Implementation Tasks**

Summary of production code

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **User Story ID and Name** | **AC ID** | **Class Name(s)** | **Method Name(s)** | **Developer Name(s)** | **Status** | **Notes (optional)** |
| 1. Board Visualization | 1.1 | GameGUI | calculate\_positions, create\_board | Mannava Vignesh, Shreya Saraf | Completed | Ensured positions are equidistant |
|  | 1.2 | GameGUI | update\_board | Mannava Vignesh, Shreya Saraf | Completed | Correct color assignment |
| 2. Piece Placement | 2.1 | Game, GameGUI | place\_piece, handle\_click | Mannava Vignesh, Shaik Sumayya Fathima | Completed | Turn switching implemented |
|  | 2.2 | Game, GameGUI | place\_piece | Mannava Jyothi Krishna |  | Enforced piece limit |
| 3. Invalid Move Handling | 3.1 | Game, GameGUI | place\_piece, handle\_click | Mannava Jyothi Krishna | Completed | Error message for occupied positions |
| 4. Turn Switching | 4.1 | Game, GameGUI | switch\_player, handle\_click | Mannava Vignesh, Shaik Sumayya Fathima | Completed | Turn switches correctly |
| 5. Mill Formation Detection | 5.1 | Game, GameGUI | place\_piece, prompt\_remove\_piece | Mannava Vignesh, Shaik Sumayya Fathima | Completed | Mill detection and prompt |
|  | 5.2 | Game, GameGUI | remove\_piece, handle\_remove\_click | Mannava Jyothi Krishna, Shreya Saraf | Completed | Piece removal functionality |

Summary of automated test code (directly corresponding to some acceptance criteria)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **User Story ID and Name** | **Acceptance Criterion ID** | **Class Name (s) of the Test Code** | **Method Name(s) of the Test Code** | **Description of the Test Case (input & expected output)** | **Status** | **Developer Name(s)** |
| 2. Piece Placement | 2.1 | TestGamePiecePlacement | test\_piece\_placement | Place pieces at positions 0 and 1, verify placement and turn switching | Completed | Shaik Sumayya Fathima |
| 3. Invalid Move Handling | 3.1 | TestGamePiecePlacement | test\_piece\_placement | Attempt to place a piece on an occupied position, expect failure and error message | Completed | Shaik Sumayya Fathima, Shreya Saraf |
| 5. Mill Formation Detection | 5.1 | TestGamePiecePlacement | test\_mill\_formation | Form a mill by placing pieces, verify mill detection and prompt | Completed | Shaik Sumayya Fathima, Shreya Saraf |
| 5. Mill Formation Detection | 5.2 | TestGamePiecePlacement | test\_piece\_removal | Remove an opponent's piece after forming a mill, verify removal and turn switching | Completed | Shaik Sumayya Fathima |
| 2. Piece Placement | 2.2 | TestGamePiecePlacement | test\_piece\_placement\_limit | Place 9 pieces for a player, attempt to place a 10th piece, expect failure | Completed | Shaik Sumayya Fathima |

Summary of manual test cases (directly corresponding to some acceptance criteria)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **User Story ID and Name** | **Acceptance Criterion ID** | **Test Case Input** | **Test Oracle (Expected Output)** | **Status** | **Notes** | **Developer Name(s)** |
| 1. Board Visualization | 1.1 | Launch the game GUI | Board displays all 24 positions in an organized layout | Completed | Visual inspection | Mannava Vignesh |
| 1. Board Visualization | 1.2 | Place a piece on a specific position | Piece appears at the selected position with correct color | Completed | Visual inspection | Mannava Vignesh |
| 2. Piece Placement | 2.1 | Player W places a piece at position 0, Player B at 1 | Pieces appear correctly, turn switches to the other player | Completed | Visual inspection | Shaik Sumayya Fathima |
| 3. Invalid Move Handling | 3.1 | Player attempts to place a piece on an occupied position | Error message is displayed, move is rejected | Completed | Error handling | Shaik Sumayya Fathima |
| 5. Mill Formation Detection | 5.1 | Player forms a mill by placing at positions 0, 1, 2 | Mill is detected, prompt to remove an opponent's piece is shown | Completed | Mill detection | Mannava Vignesh |
| 5. Mill Formation Detection | 5.2 | Player removes an opponent's piece after forming a mill | Opponent's piece is removed, turn switches to the other player | Completed | Piece removal | Shaik Sumayya Fathima |

Summary of other automated or manual tests (not corresponding to the acceptance criteria)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Number** | **Test Input** | **Expected Result** | **Class Name of the Test Code** | **Method Name of the Test Code** | **Status** | **Developer Name(s)** |
| 1 | Place pieces sequentially until limit | Players cannot place more than 9 pieces each | N/A | N/A | Completed | Shaik Sumayya Fathima, Shreya Saraf |
| 2 | Attempt to place pieces outside board | No pieces are placed, error message displayed | N/A | N/A | Completed | Shaik Sumayya Fathima, Shreya Saraf |

1. **Summary of Source Code**

|  |  |  |  |
| --- | --- | --- | --- |
| Production or test code? | Source code file name | # lines of code | Developer names and contributions (% of the source code) |
| Production Code | game\_logic.py | 69 | Mannava Jyothi Krishna (60%), Mannava Vignesh (40%) |
| Production Code | gui.py | 179 | Mannava Jyothi Krishna (40%), Mannava Vignesh (60%) |
| Production Code | main.py | 12 | Shreya Saraf |
| Test Code | test\_game.py | 81 | Shaik Sumayya Fathima (50%), Shreya Saraf (50%) |
| Utility Code | utils.py | 67 | Mannava Jyothi Krishna (25%), Shreya Saraf (40%), Mannava Vignesh (25%) |
| Total | | 408 |  |

1. **Meeting Minutes**

Report the minutes of all meetings, including, but not limited to: project/sprint planning meeting, stand-up meeting, backlog grooming, retrospective meeting, and pair programming session.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date** | **Time and Duration** | **Place** | **Participant Names** | **Purpose of the Meeting** | **Specific Action Items** |
| 9/21/24 | 10:00 AM - 11:00 AM | Zoom Meeting | Mannava Jyothi Krishna, Mannava Vignesh, Shaik Sumayya Fathima, Shreya Saraf | Define sprint objectives and assign user stories | Assigned user stories 1-5 to respective team members |
| 9/25/24 | 9:00 AM - 11:15 AM | Zoom Meeting | Mannava Jyothi Krishna, Mannava Vignesh, Shaik Sumayya Fathima, Shreya Saraf | Daily progress update | Mannava Jyothi Krishna to work on game logic, Mannava Vignesh on GUI design |
| 9/26/24 | 2:00 PM - 3:00 PM | Zoom Meeting | Mannava Jyothi Krishna, Mannava Vignesh, Shaik Sumayya Fathima, Shreya Saraf | Refine user stories and prioritize tasks | Prioritized user stories, adjusted estimated efforts |
| 10/1/24 | 4:00 PM - 5:00 PM | Zoom Meeting | Mannava Jyothi Krishna, Mannava Vignesh, Shaik Sumayya Fathima, Shreya Saraf | Review sprint outcomes and identify improvements | Decided to enhance GUI layout and enforce piece limits |
| 10/3/24 | 1:00 PM - 3:00 PM | Zoom Meeting | Mannava Jyothi Krishna, Mannava Vignesh, Shaik Sumayya Fathima, Shreya Saraf | Collaborate on integrating game logic with GUI | Successfully connected game\_logic.py with gui.py |

1. **Buddy Ratings**

If you don’t feel comfortable to include your ratings in this report, you may email your ratings to the instructor or grader.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Rating giver* | *Rating receiver* | | | | |
|  | Full Name 1 | Full Name 2 | Full Name 3 | Full Name 4 |
| Mannava Jyothi Krishna | X | 1 | 1 | 1 |
| Mannava Vignesh | 1 | X | 1 | 1 |
| Shaik Sumayya Fathima | 1 | 1 | X | 1 |
| Shreya Saraf | 1 | 1 | 1 | X |
|  | *Average* | 1 | 1 | 1 | 1 |