

## Nine Men's Morris Unity game solution

### Architecture of the project:

#### Scripts:

1. **GameManager.cs** – Game logic: turn switching, mill checking, win detection
2. **BoardPosition.cs** – Placeable spot script: checks if occupied, checks if move possible
3. **Piece.cs** – Each piece: has owner variable, moves the pieces
4. **UIManager.cs** – UI element manager: Win screen, updating turn text and instructions
5. **PauseManager.cs** – ESC Menu manager: Handles click ESC and ESC menu buttons functions
6. **SettingsManager.cs** – Controls player name and color selection in main menu scene
7. **AudioManager.cs** – Manages audio, plays Background sound and plays other sounds when needed
8. **PanelSlideManager.cs** – Manages slider to animate restarting the game
9. **WinEvent.cs** – Win event that is called once the game is over

#### Scenes:

1. **Main Menu Scene** – Main Menu UI that lets player start the game or change name/color.
2. **Game Scene** – Game scene

#### Audio:

1. Background music that loops
2. Click sounds for buttons, Wood knock sound for placing and moving pieces, NO sound for invalid actions, Win sound for game end

#### Animations:

1. In the animations folder, all animations and their controllers can be found, they are mostly for opening and closing UI Canvases using Scale 0->1 and 1->0. One is also for sliding the Canvas Panel from left to right.

## **How to Play**

### **1. Placement phase**

- a. Players take turns placing 9 pieces each on available board spots
- b. Forming a mill (3 in a row, both vertically or horizontally) lets the player remove one of the opponent's pieces

### **2. Movement phase**

- a. Players move pieces to available adjacent spots
- b. Forming mills and removing pieces until one player is left with 3 pieces or game is won

### **3. Flying phase**

- a. When player has only 3 pieces left, he is able to move his pieces to any of the open spots on the board

### **4. Win condition**

- a. A player wins when the opponent has only 2 pieces left or the opponent has no legal moves to make

## **Controlling the Pieces:**

- 1. **Left-Click** – Placing pieces, choosing and moving pieces, clicking buttons
- 2. **ESC** – Opens up the pause menu