### 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 possibile
- 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 star 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

## 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