

Nine Men's Morris

Sprint 3 (Screenshots)

Team Name:

Brute Force

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Screenshots of The 5 Situation

Situation 1: Empty board at the beginning of the game

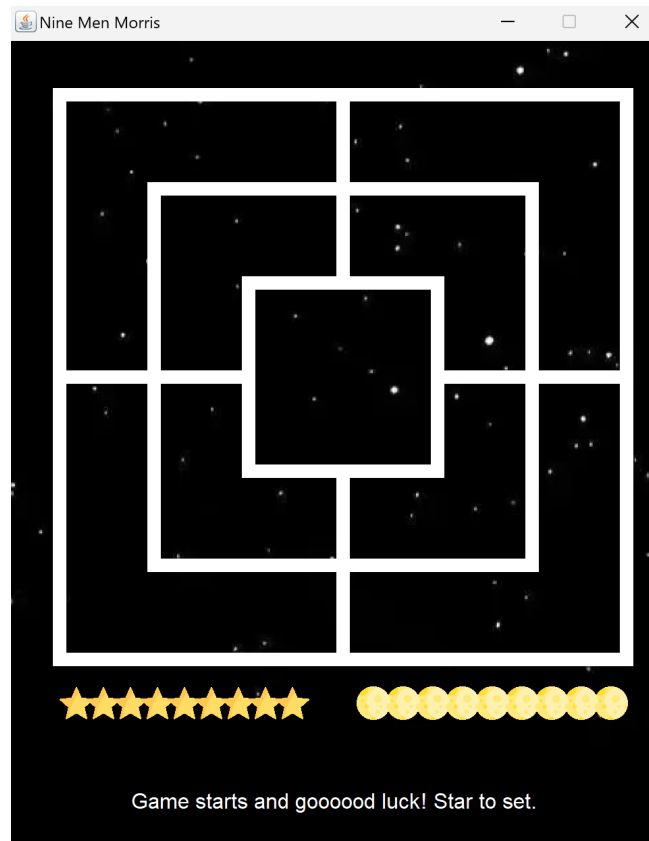


Figure 10: Initial board at the beginning of the game

Situation 2: Set, Move and Jump

1) Set

Before the players can start moving the tokens, both Player 1 and Player 2 are required to place 9 tokens each on the board. Initially, all the tokens are positioned underneath the grid. The message panel prominently displays the player's turn, indicating who should place a token. Upon clicking a node on the board, the corresponding tokens are revealed and displayed on that specific node, allowing for the game to progress smoothly.

a. Initial Board Configuration without any Tokens Placed

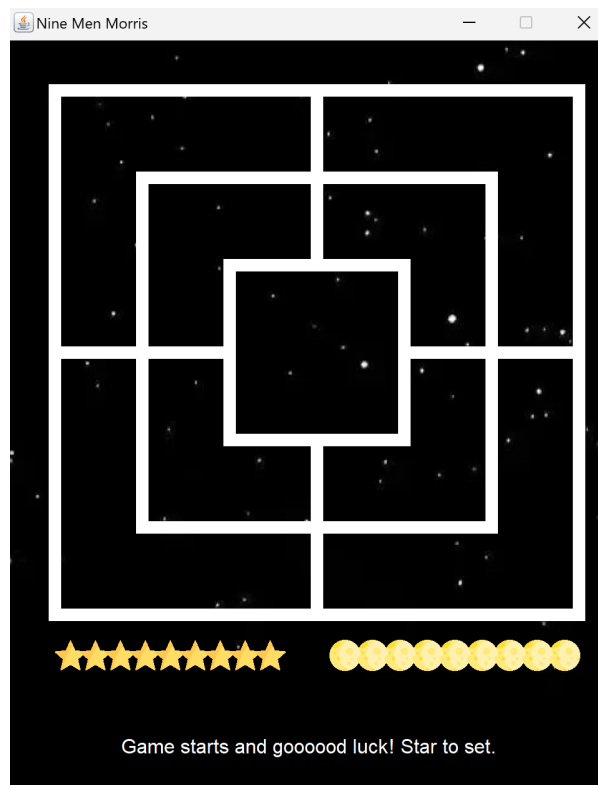


Figure 11: Initial Board Configuration without any Tokens Placed

b. Both Players in the Token Placement Phase

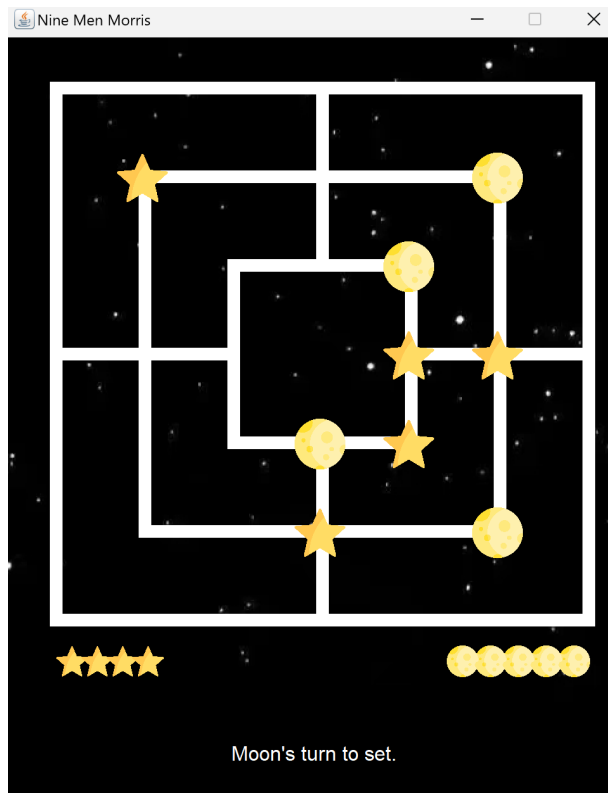


Figure 12: Both Players in the Token Placement Phase

c. Tokens Successfully Placed and Ready for Player Movement

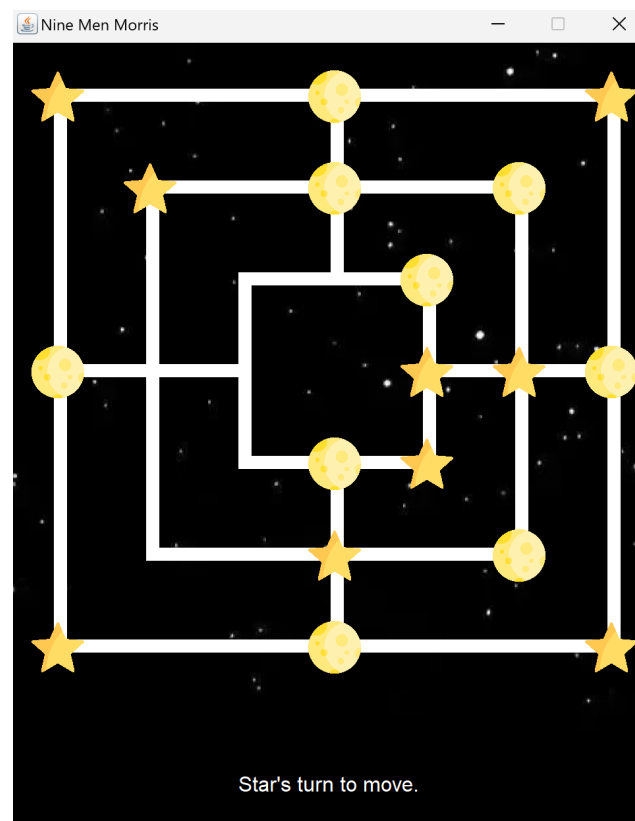


Figure 13: Tokens Successfully Placed and Ready for Player Movement

2) Move

After successfully placing all the tokens on the board, the gameplay progresses to the 'move' action, where both players take turns. The player who possesses the star token initiates the first move, followed by the player with the moon token. This alternating pattern between the star and moon tokens continues throughout the game, ensuring fair and engaging gameplay for both players.

a. Pre-Move Stage for Star Token

Post-Move Stage for Star Token

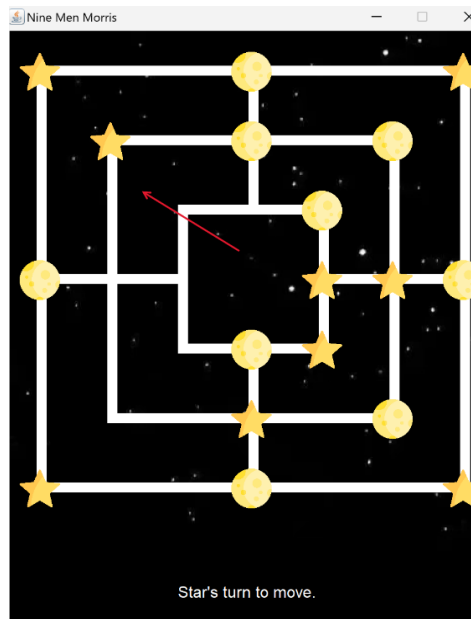


Figure 14: Pre-Move Stage for Star Token

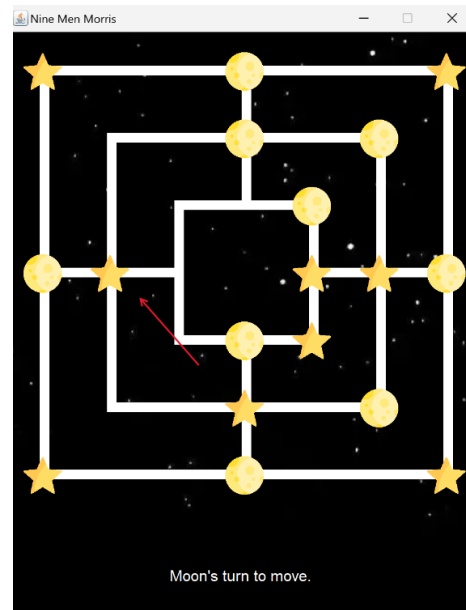


Figure 15: Post-Move Stage for Star Token

b. Pre-Move Stage for Moon Token

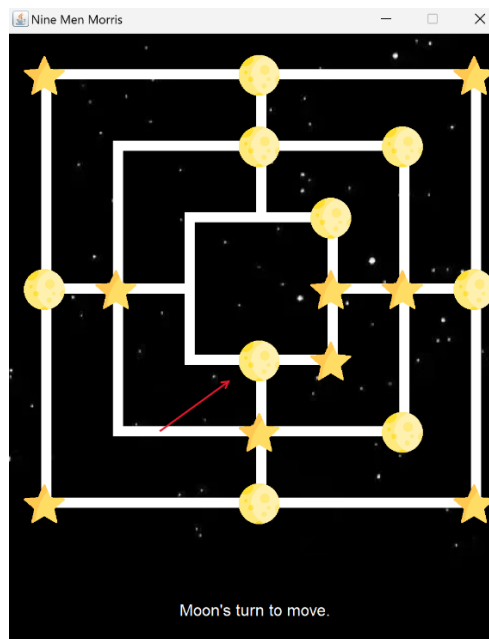


Figure 16: Pre-Move Stage for Moon Token

Post-Move Stage for Moon Token

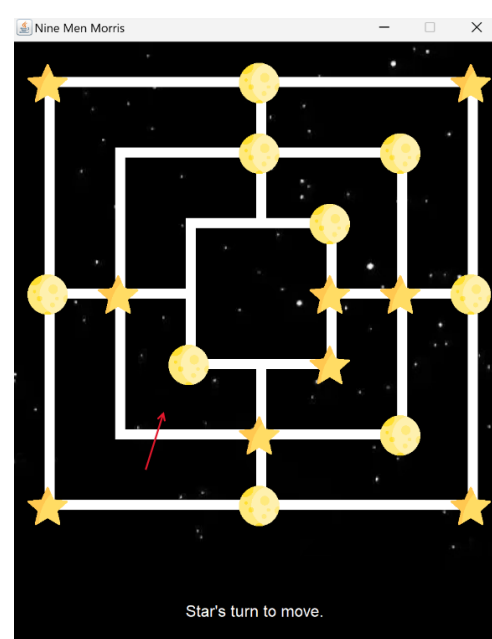


Figure 17: Post-Move Stage for Moon Token

Please note that the move action will only be executed if the player intends to move to a neighboring position of their token. Since unsuccessful move actions do not result in any changes to the board, no screenshots are provided for those situations.

3) Jump

The Jump action is only allowed when a player has exactly 3 tokens remaining on the board. In this situation, the player has the freedom to move any of their three tokens to any position on the board. In the provided screenshot, we can observe that the player using the star tokens has only 3 tokens remaining, enabling them to perform the jump action and strategically move their tokens to different positions on the board.

a. Pre-Jump Stage for Star Token

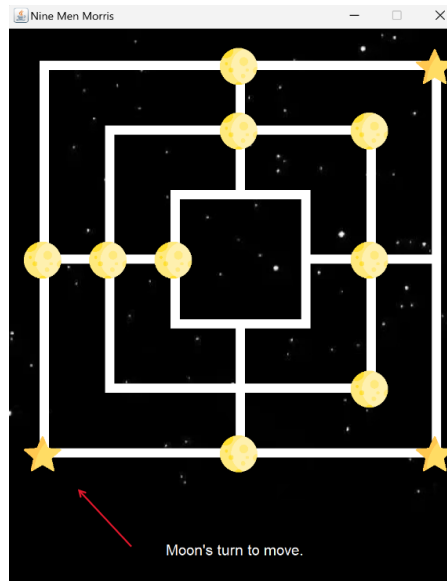


Figure 18: Pre-Jump Stage for Star Token

b. Post-Move Stage for Star Token

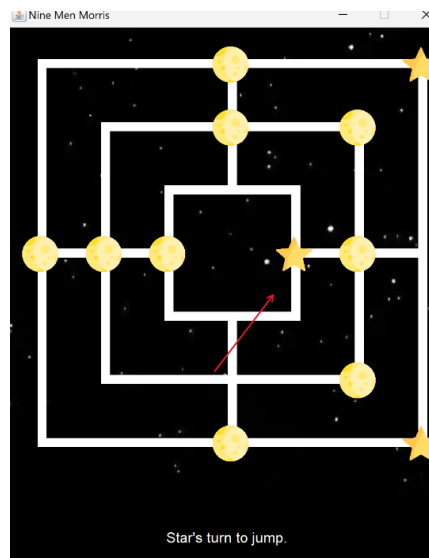


Figure 19: Post-Move Stage for Star Token

Situation 3: Detection of Mill

A mill is formed when a player successfully aligns three of their tokens in a straight non-diagonal row along one of the board's lines. Once a mill is formed, our game can detect this mill automatically and notify the players in the message panel below by displaying a message informing the player who forms the mill to remove a token from the opponent.

- a. Before forming a mill by Player Star

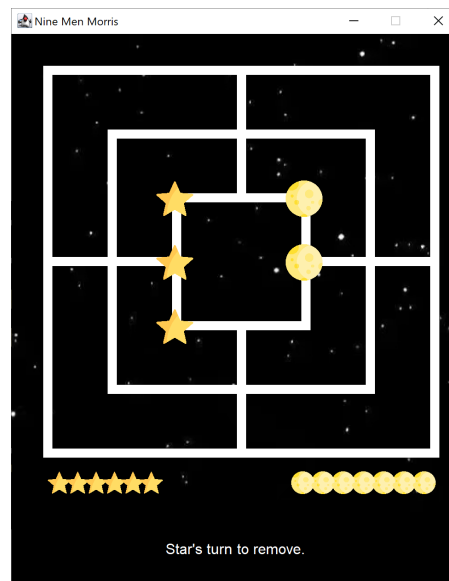


Figure 20: Before forming a mill by Player Star

- b. After forming a mill by Player Star

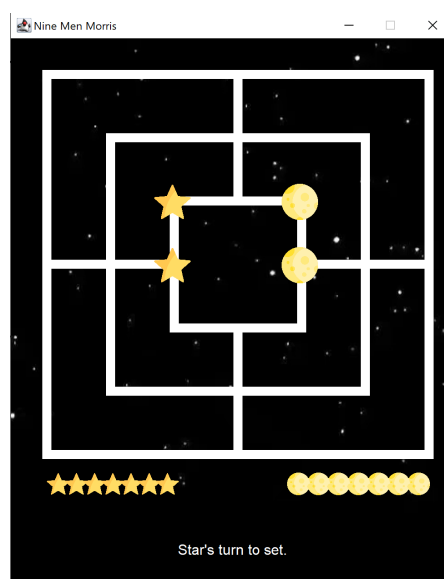


Figure 21: After forming a mill by Player Star

Situation 4: Correct Remove Action When Forming a Mill

When a player forms a mill, the player can remove one of the opponent's tokens that is not part of a mill. With that being said, those that are part of a mill are not allowed to be removed.

- a. Before token removal by Player Moon

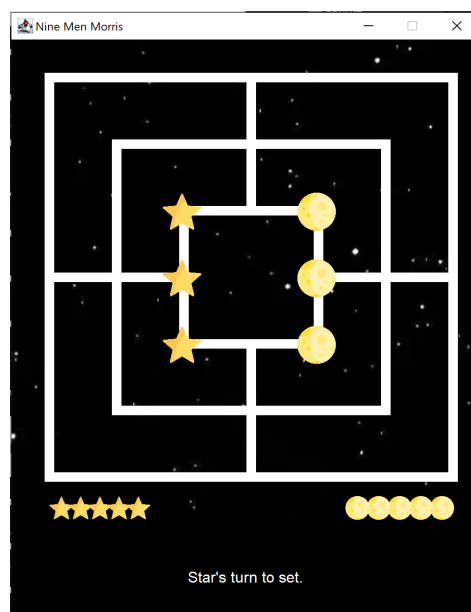


Figure 22: Before token removal by Player Moon

- b. After token removal by Player Moon



Figure 23: After token removal by Player Moon

Edge Case (all of the opponent's tokens are in the mill)

An interesting edge case whereby a player forms a mill, but all of the opponent's tokens are also in the mill. The game handles this by switching the turn to the opponent to continue the game. This ensures that the game can proceed smoothly even when all opponent's tokens are in mills.

- a. Before forming a mill by Player Star

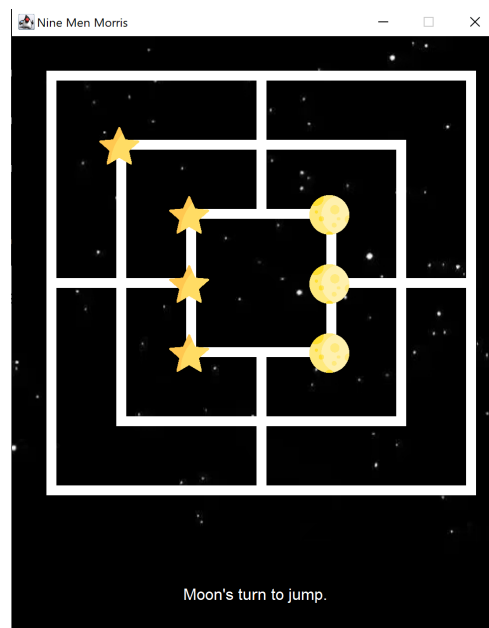


Figure 24: Before forming a mill by Player Star

- b. After forming a mill by Player Star

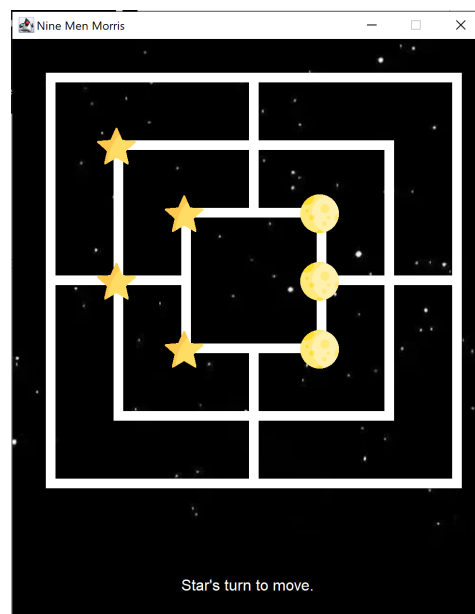


Figure 25: After forming a mill by Player Star

Situation 5: Detection of the end of a game

The game will only end in two conditions. The first condition occurs when one of the players is left with only 2 tokens. The second condition occurs when either player has any legal moves left. This happens when it's a player's turn to move, but none of their tokens can be moved.

- 1) First Condition: One player has less than two tokens(Star Lose, Moon Win)

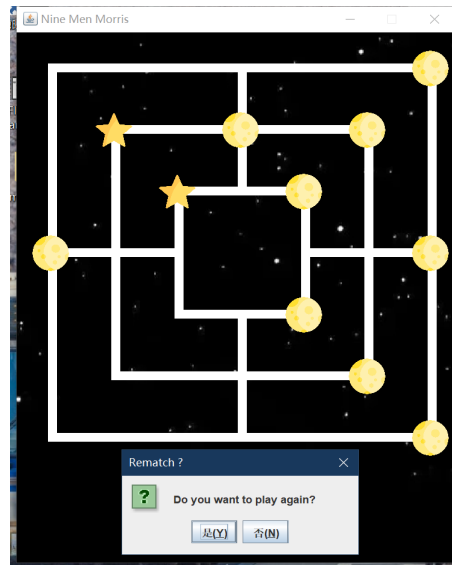


Figure 26: End game due to one player has less than two tokens

- 2) Second Condition: No more legal move(Star Lose, Moon Win)

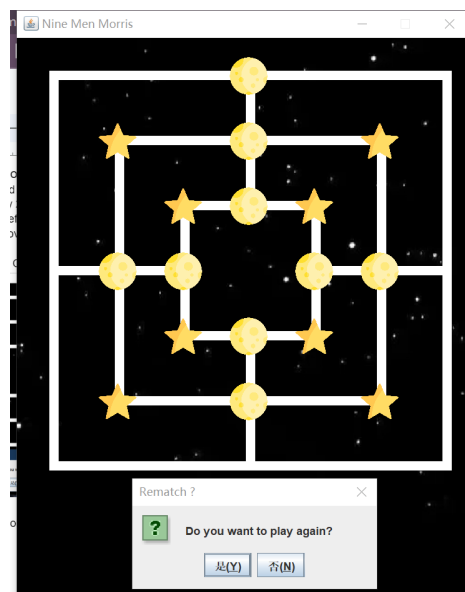


Figure 27: End game due to one player has no legal move