

Chess Game GUI Testing Manual

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1 Initialization

It is better if we can check the functionality of game board before we check how individual pieces interact with each other. My Chess board is implemented to support re-sizing - so we could start here.

1.1 Initial Screen

After launching the game, Figure 1 should be the first screen you see.

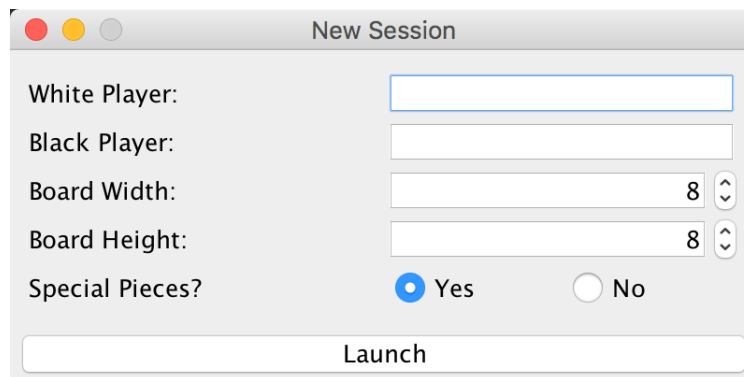


Figure 1: Initial Screen

Explanation:

- **White Player:** the name of player that hold white pieces
- **Black Player:** the name of player that hold black pieces
- **Board Height:** the maximum height of the board
- **Board Width:** the maximum width of the board
- **Special Pieces?:** whether to include special pieces in the game

To submit you selection, you will need to press the **Launch** button.

1.2 Player Names

For the purpose of the game, you can enter the name of white player, black player, both, or neither. If name is left empty, the game will automatically generates one for the player using java-faker.

1.2.1 Randomly Generated Names

To see the randomly generated names, leave the initial screen empty as in Figure 1. Press **Launch**. You should be able to see the names of two players randomly generated for you.

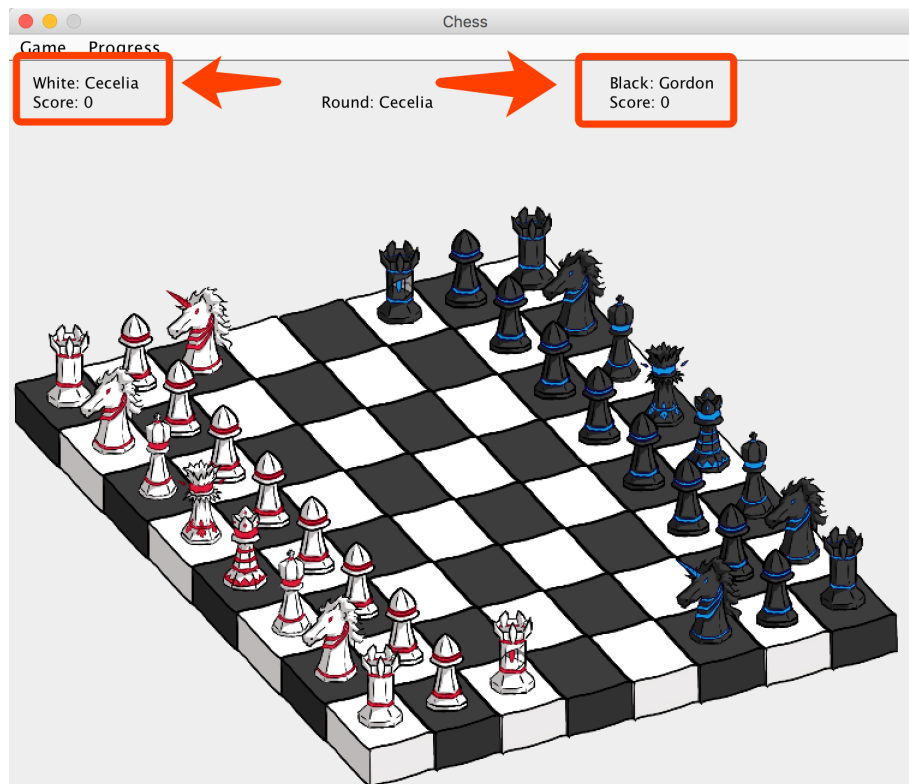


Figure 2: Random Names for Player

1.2.2 User Specified Names

Player could also manually enter their names in the initial screen, as shows in Figure 3 and the game window should looks like Figure 4:

1.3 Game Board

You can change the board size in the initial screen

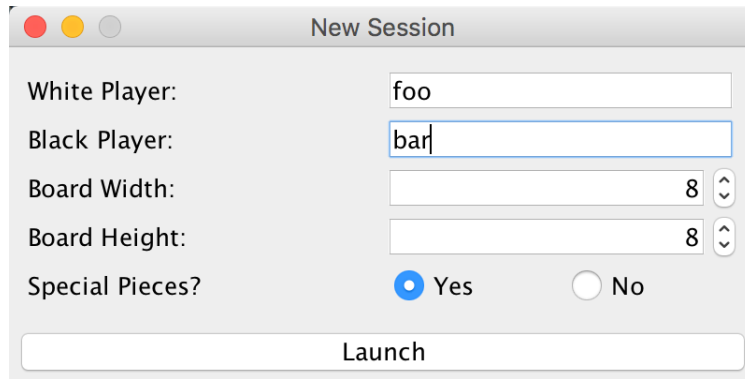


Figure 3: Initial Screen with Name

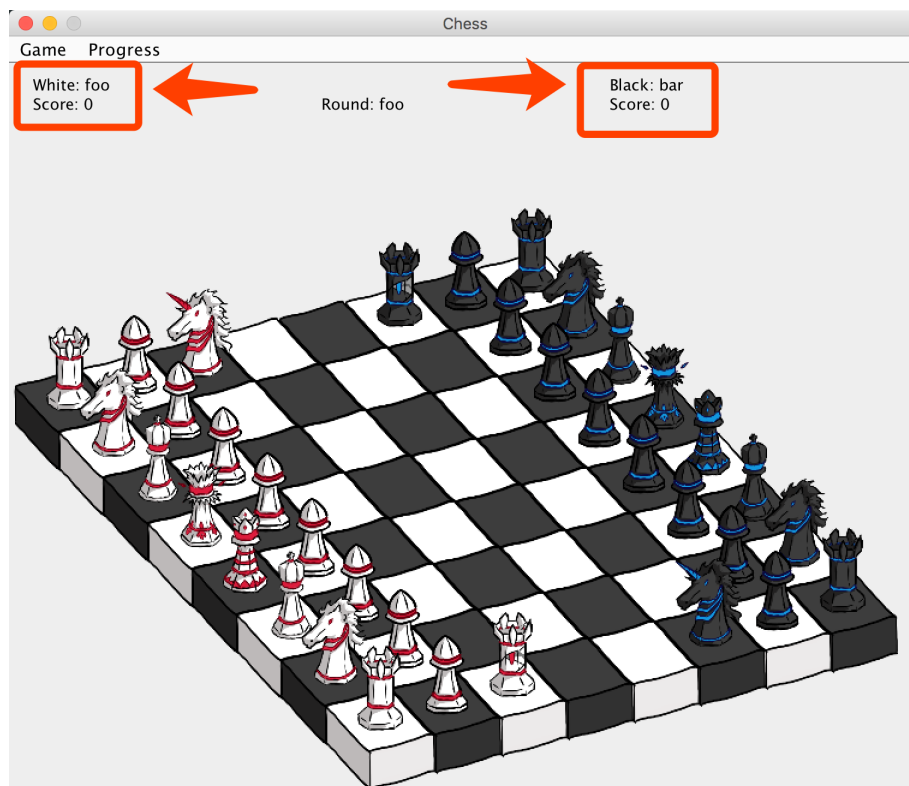


Figure 4: Specified Names for Player

1.4 Default Board Size

Without changing any initial setting and press **Launch** while everything remains as in Figure 1. You should see a 8×8 board like this:

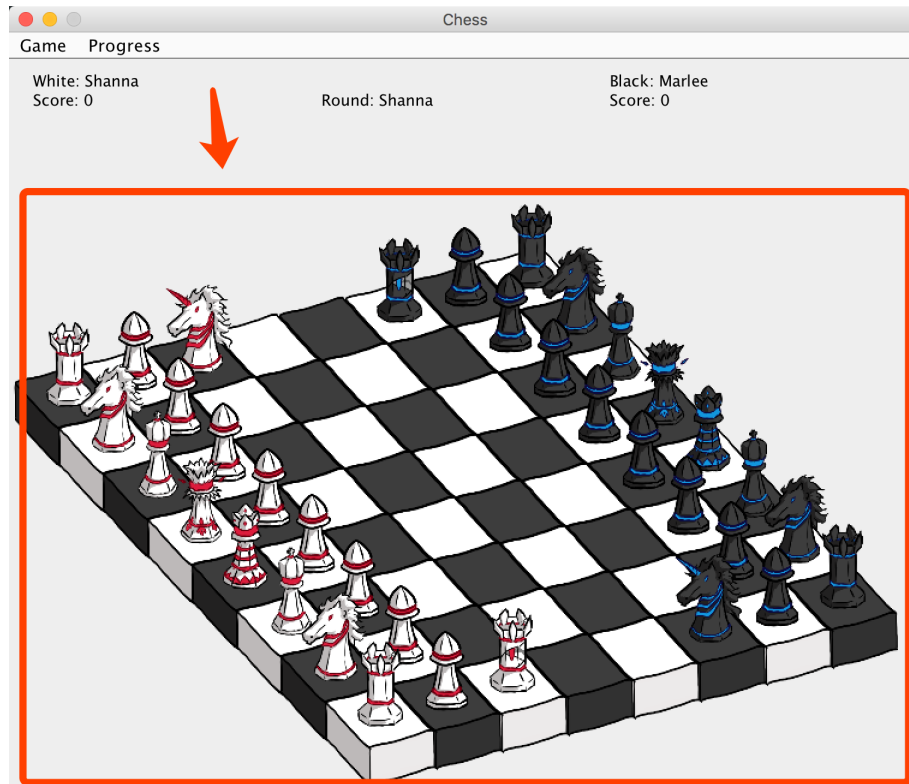


Figure 5: A Board with Default 8×8 Size

1.5 Custom Board Size

You can also change the board size in the initial screen by setting **Board Width** and **Board Height** according to needs, as in

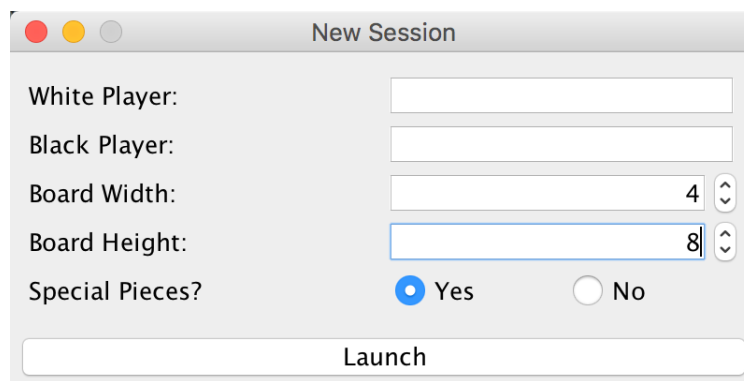


Figure 6: Initial Screen with Specified Size

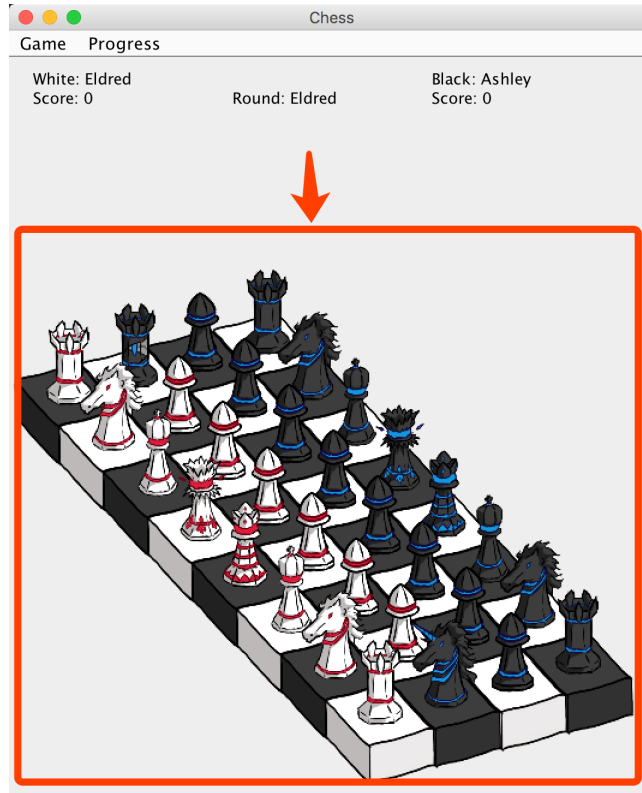


Figure 7: Board with Specified Size

1.6 Custom Pieces

You can also decide whether to include the two custom pieces **Artillery** and **Unicorn** in the chess game.

1.6.1 With Custom Pieces

Launching the game as in Figure 1, you will see a game with custom pieces, as in Figure 5.

1.7 Without Custom Pieces

To launch a game without custom pieces, select **No** in the initial screen, as in Figure 8 and Figure 9.

2 Game Loop

In the following part, we will use 8×8 board without special pieces. The board with special pieces should have very similar results.

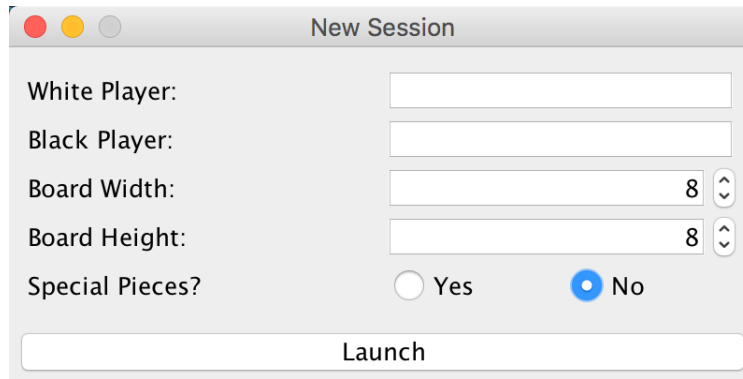


Figure 8: Initial Screen with no Custom Pieces

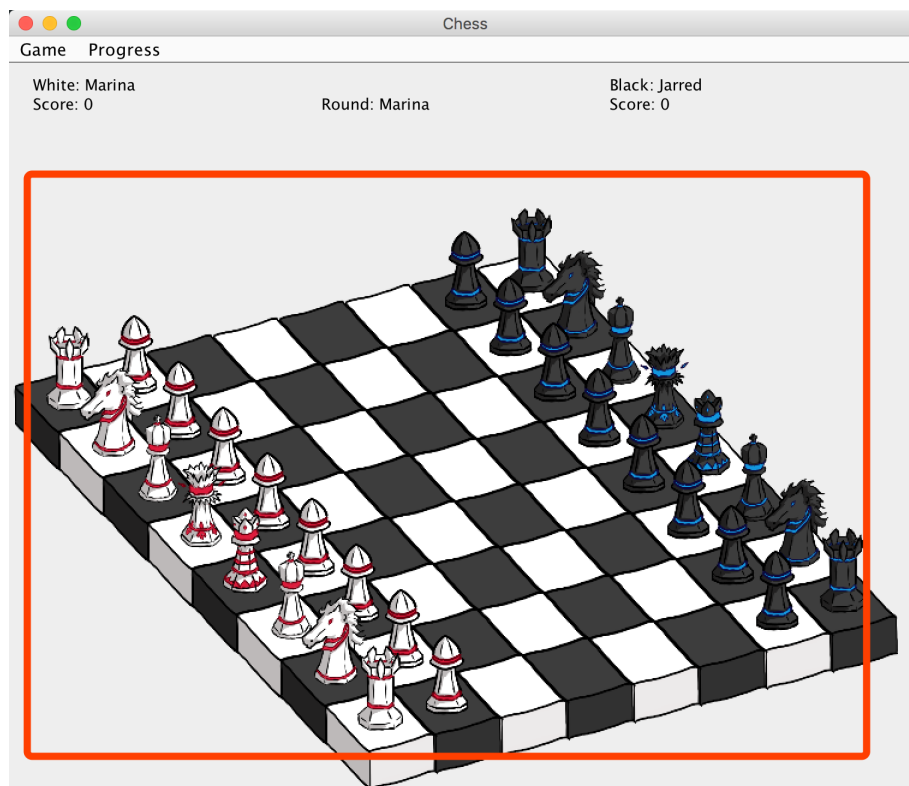


Figure 9: Board with no Custom Pieces

2.1 Piece Selection

In the following part, we we will look at the GUI for piece selection. We assume that the current round is white, but the black round should be very similar.

2.1.1 Hover Effect

The pieces should glow when the mouse is over it, as shown in Figure 10

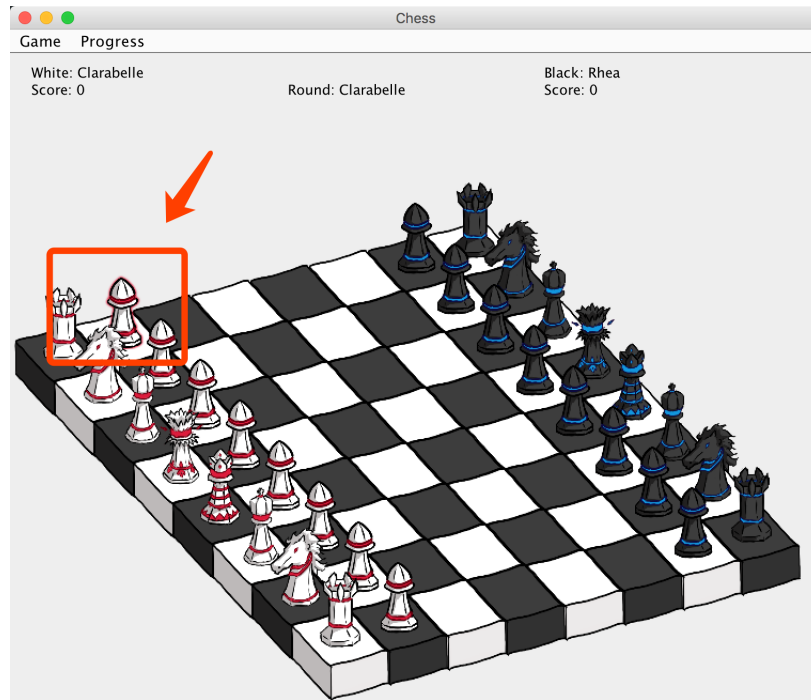


Figure 10: Piece with Mouse Over Effect

2.1.2 Valid Selection

Selecting a valid piece will show all available movements for that piece. The selected piece will also show a outer glow, as in Figure 11

2.1.3 No Valid Movements

If currently selected piece have no valid movement, then a warning will be displayed at the status bar, as in Figure 12

2.1.4 Invalid Selection

If current selection is invalid, then a warning will be displayed at the status bar, as in Figure 13

2.2 Select Movement

After selecting a movement, the piece should be moved to the specific location, as in Figure 14 and Figure 15

2.3 Undo / Redo

At any time, if a player wants to undo/redo the previous movement, he or she can use the menu bar to undo/redo the actions.

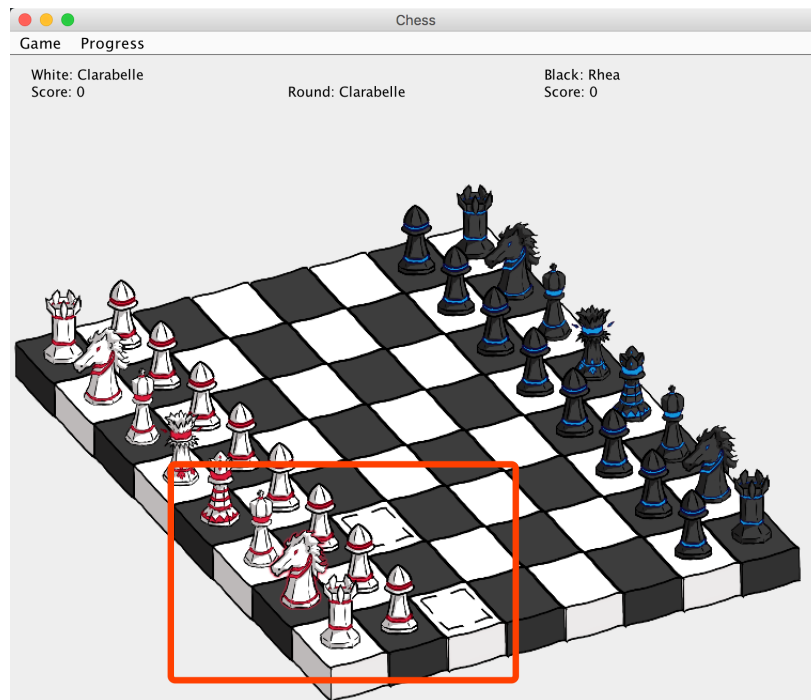


Figure 11: Selected Valid Piece

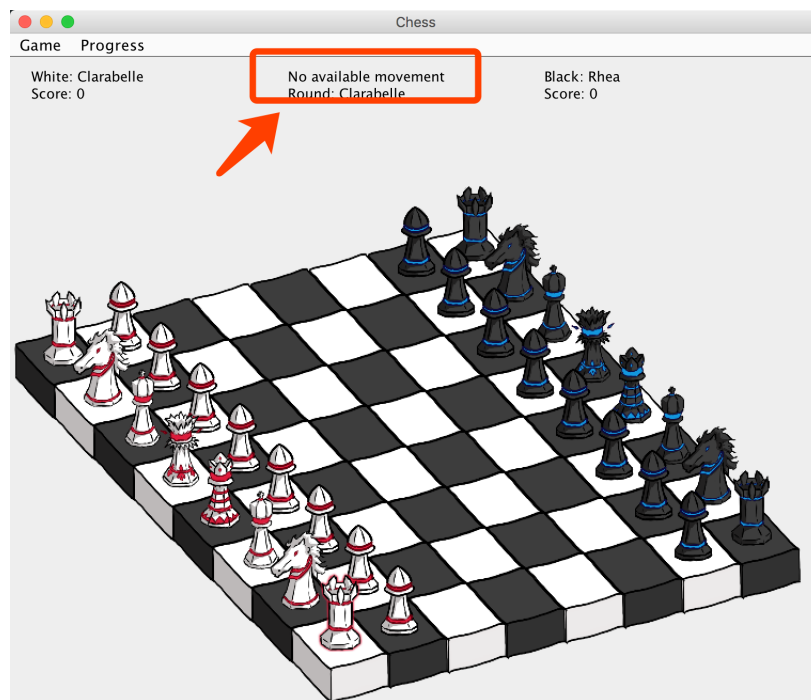


Figure 12: No Valid Movement for the Piece

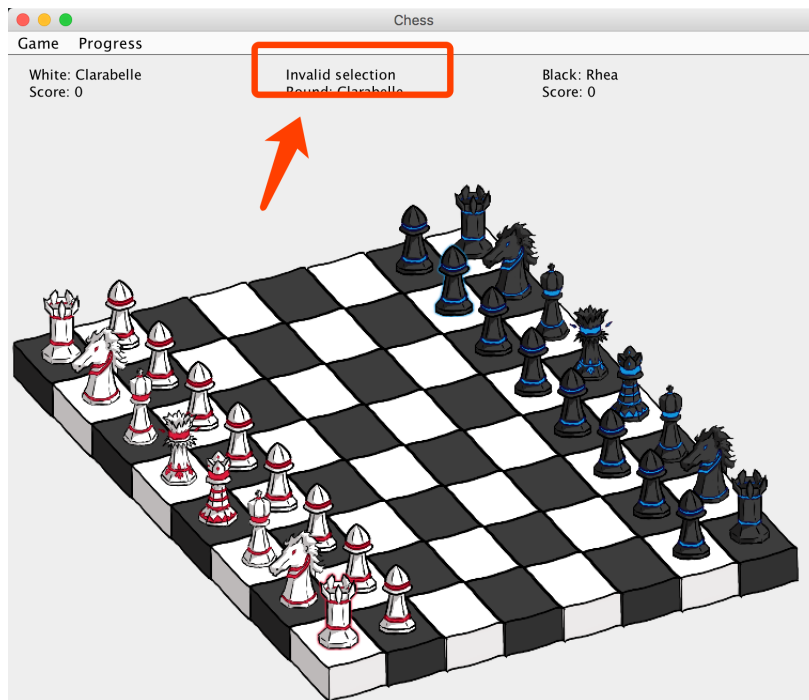


Figure 13: Invalid Selection

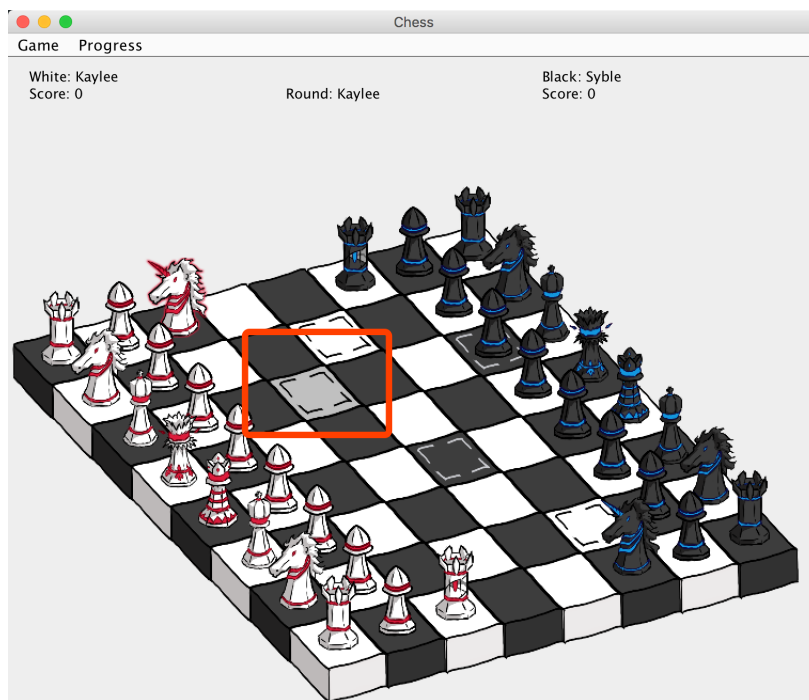


Figure 14: Select Movement

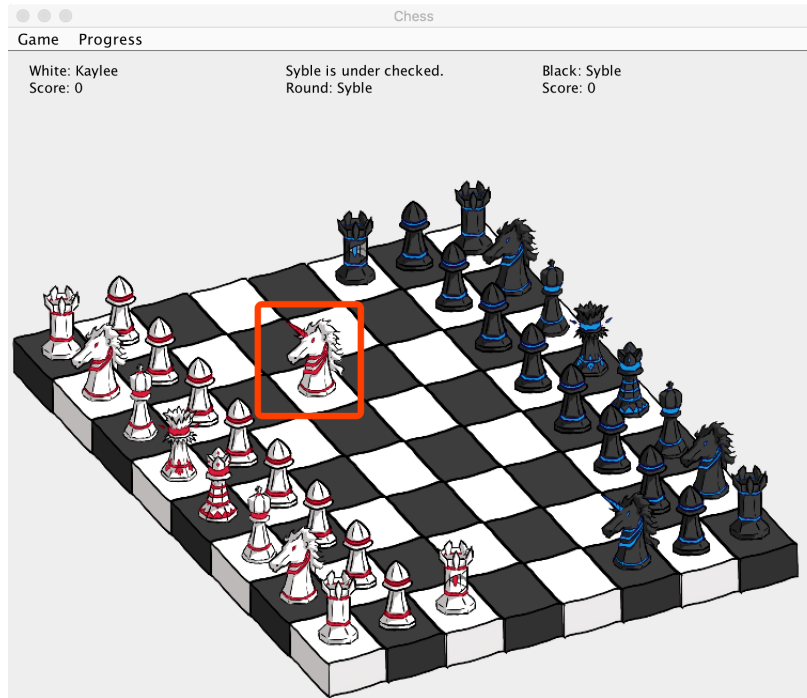


Figure 15: The Game After Movement

2.3.1 Undo

Undoing an action appears as in Figure 16 and Figure 17. Previous captured piece will be restored.

2.3.2 Redo

Redoing an action appears as in Figure 18 and Figure 19. It will replay the last undo action

2.4 Restart

Restarts can be triggered by selecting the menu item, as in Figure 20 and Figure 21. The Scores should remain the same, but the players should be switched.

3 Game Ending Status

3.1 Checkmate

If the game reaches the checkmate status, the statusbar will display a message showing that which player wins, and the score for that player will be increment. After that, no movement should be allowed, as in Figure 22

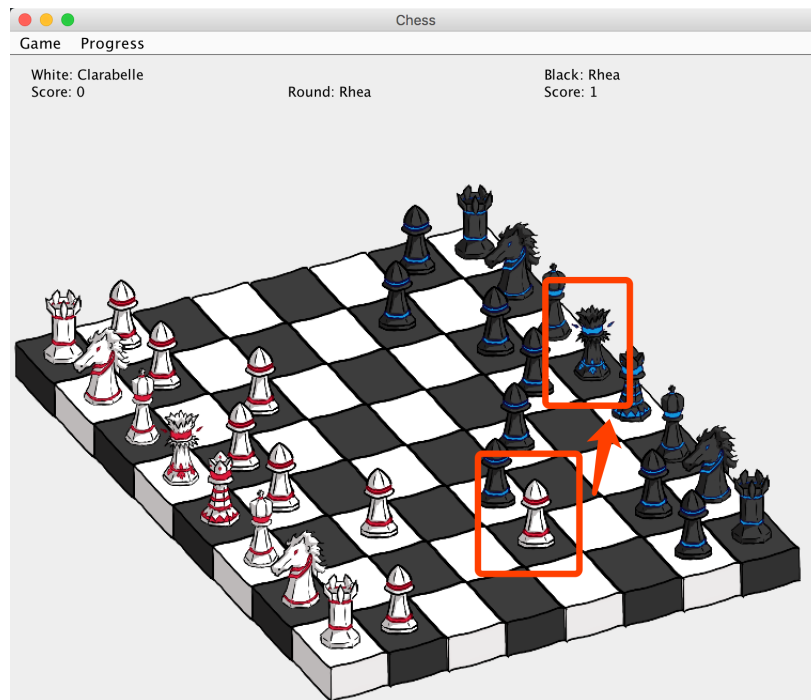


Figure 16: Select Undo

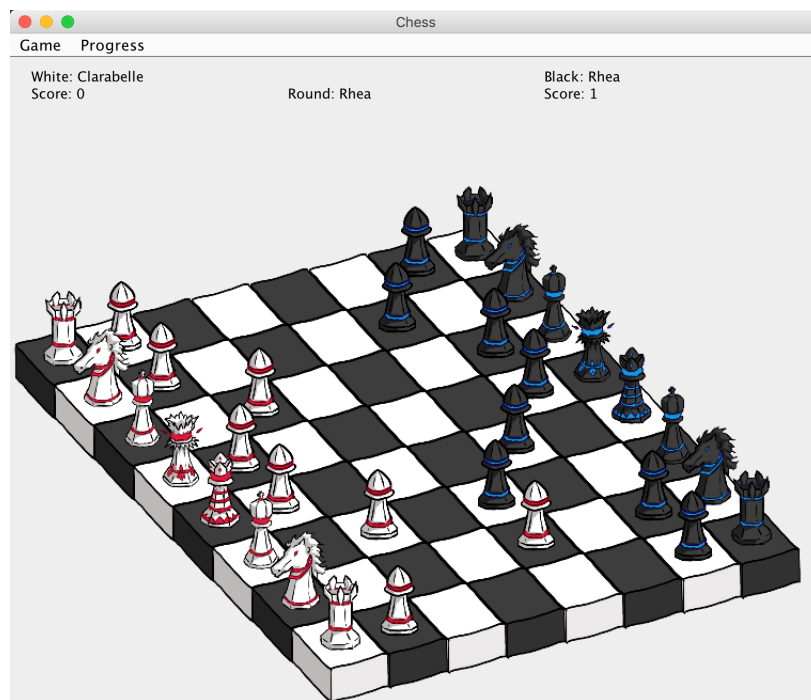


Figure 17: The Game After Undo

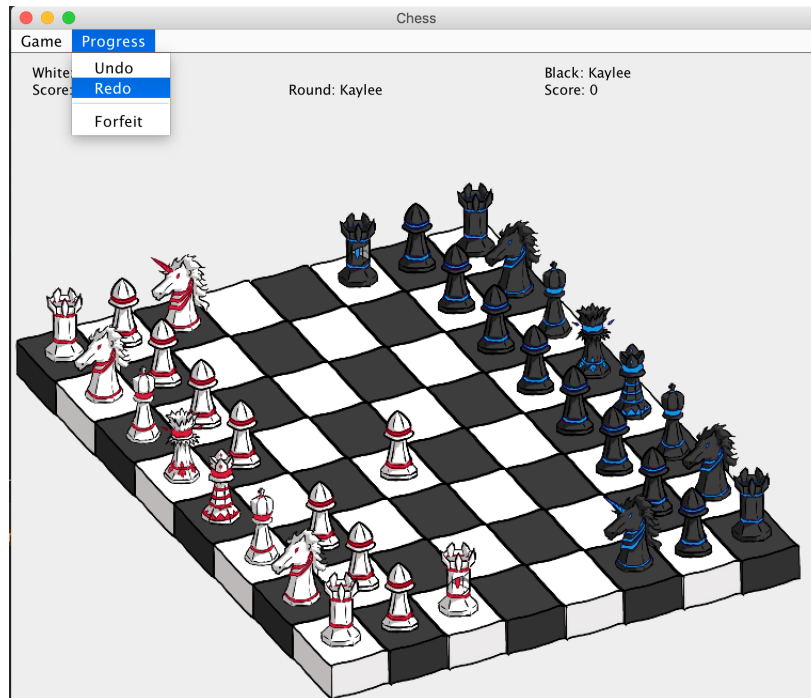


Figure 18: Select Redo

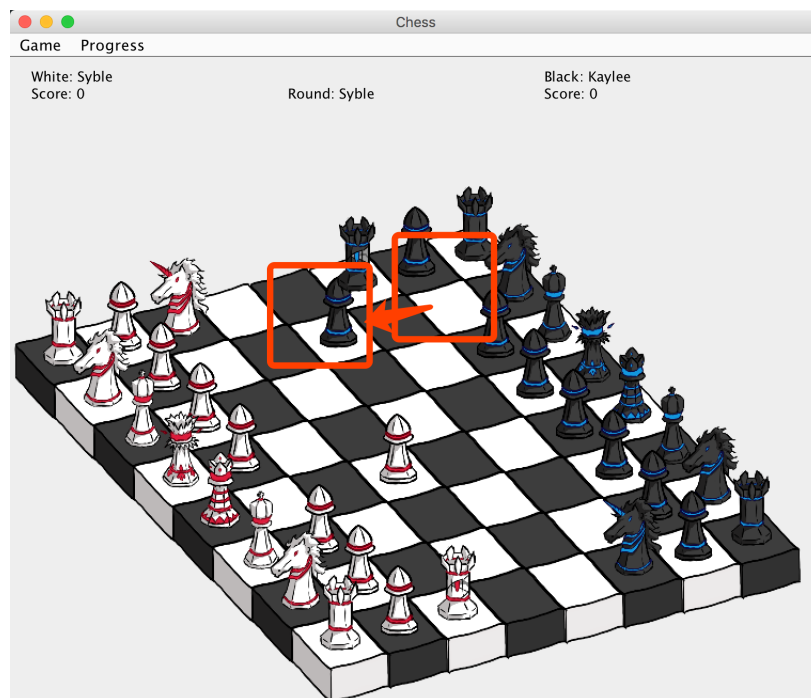


Figure 19: The Game After Redo

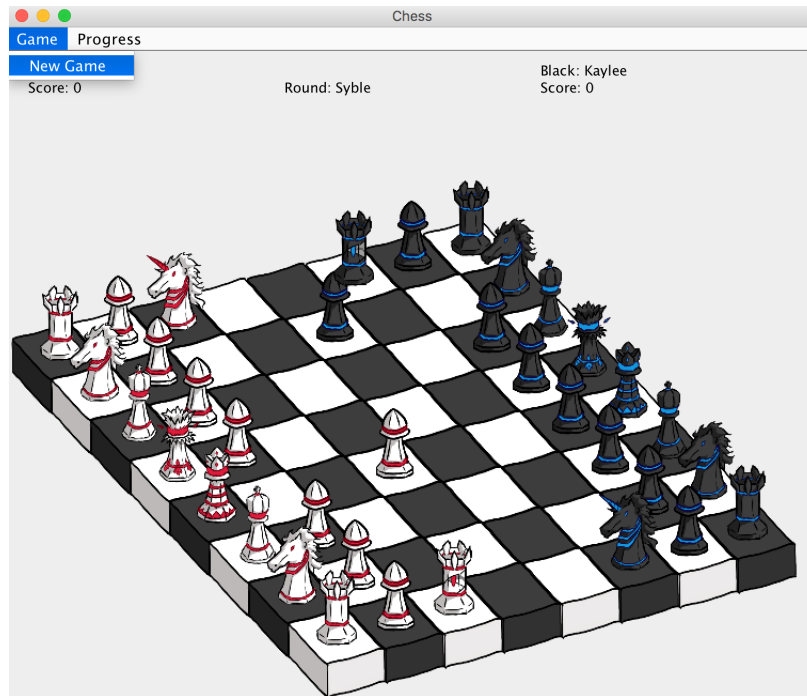


Figure 20: Select New Game

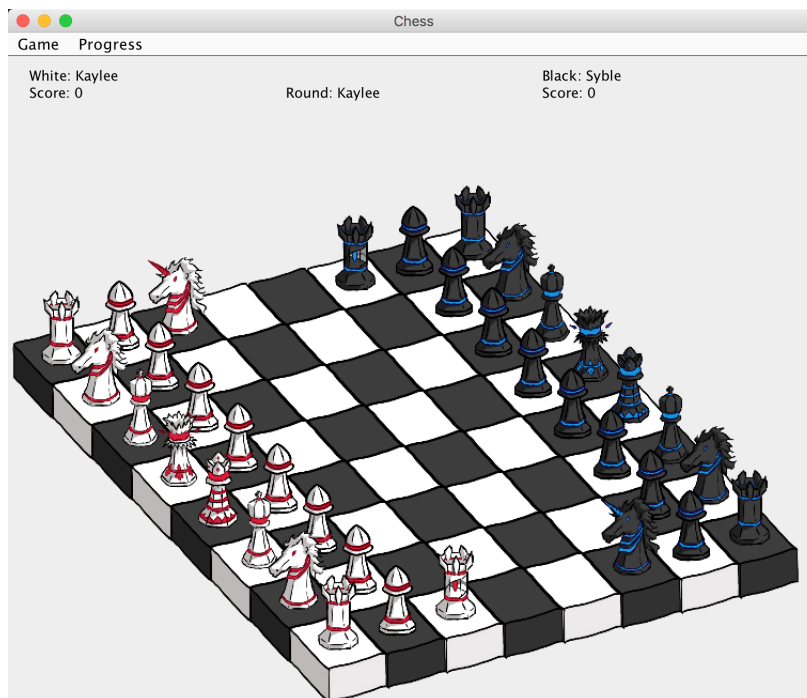


Figure 21: The Game After New Game

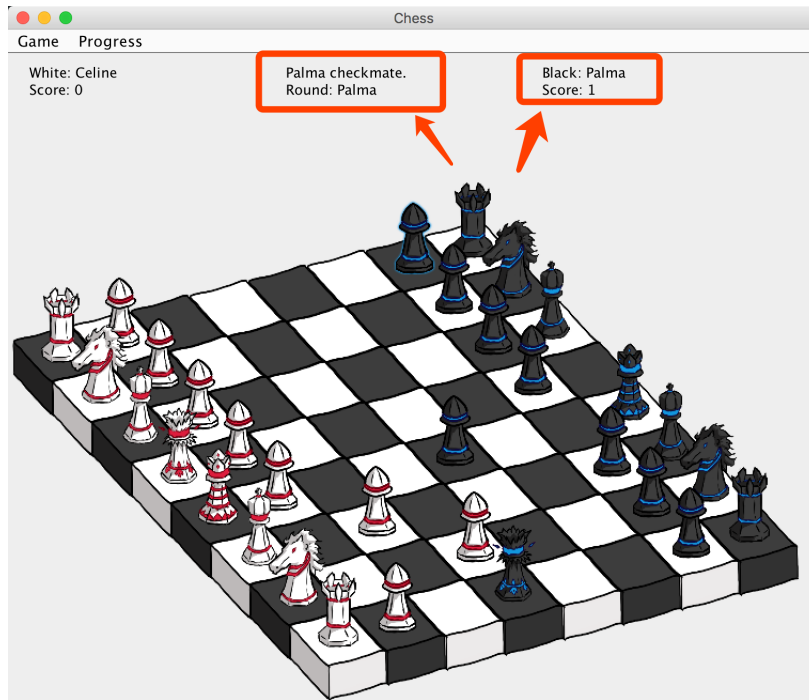


Figure 22: Board For Checkmate

3.2 Forfeit

If any player forfeit in its own turn, the game ends immediately, and the status bar will display a message showing that the other player wins. The score for other player will be incremented, as in Figure 23 and Figure 24

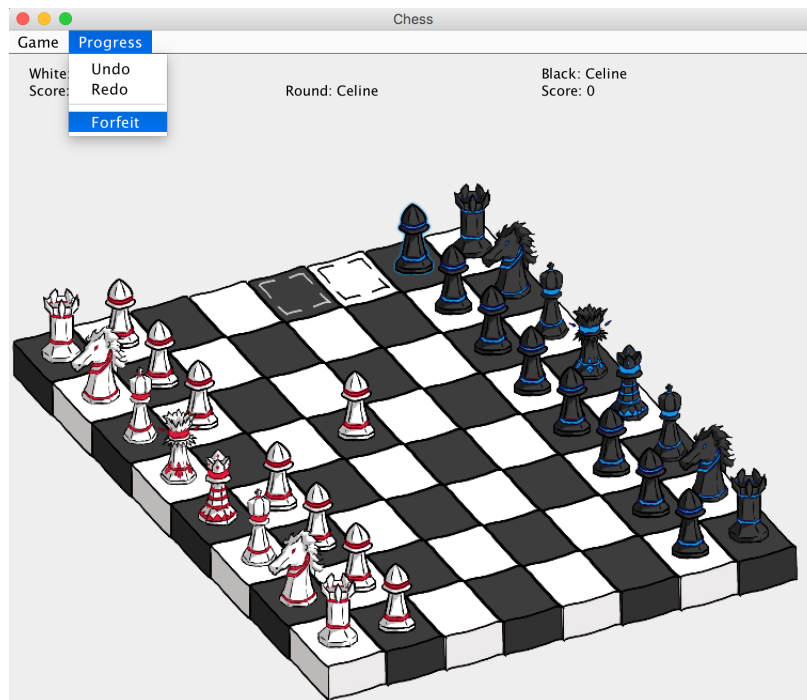


Figure 23: Selecting Forfeit

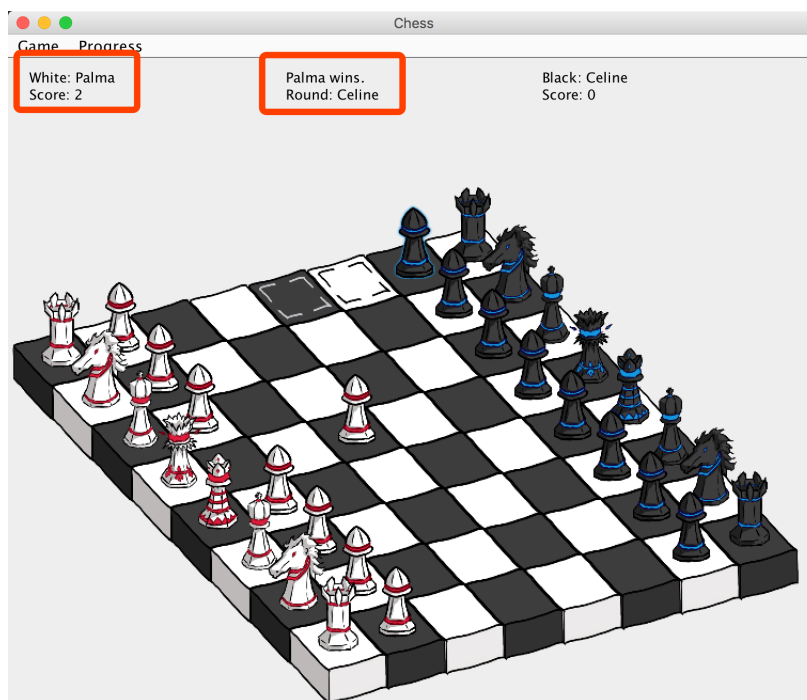


Figure 24: Board After Forfeit