

Manual Test Plan

Project name: Chess Game

This project is developed using Eclipse Oxygen.3a Release (4.7.3a). Any recent version of IDE for Java development can be used to test this project.

Environment Setup:

1. Import the project into IDE.
2. Go to assignment1/src/chess/Chessview.java.
3. Run Chessview.java as Java Application.

Initial interface

The program opens a new window as shown below.

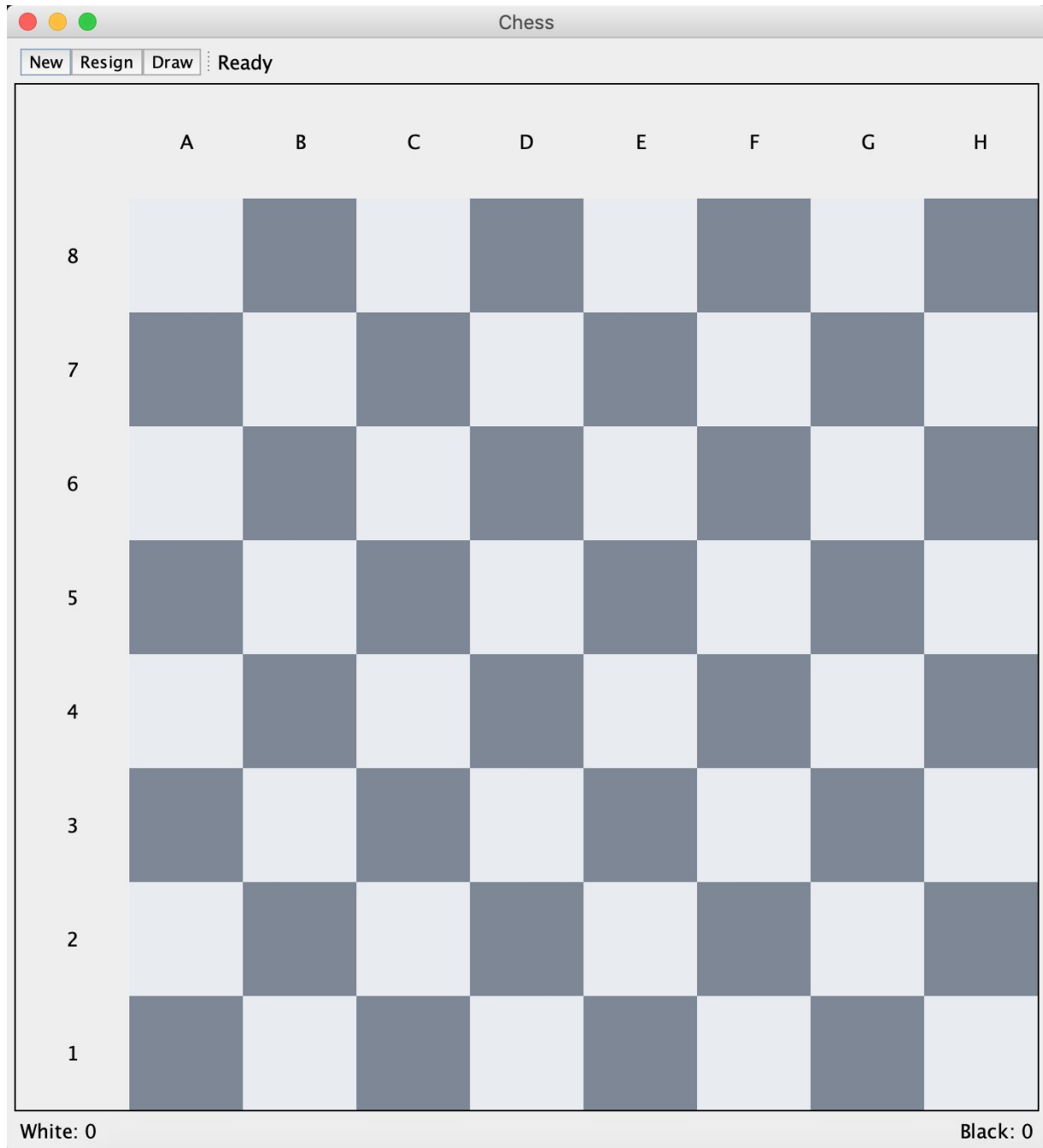
It has a toolbar including buttons “New”, “Resign” and “Draw”.

On the right of the toolbar is a text message, initially reads “Ready”.

The chess board is displayed in the middle, which is empty before a game starts.

At the bottom are the names and scores for both players.

By default, the player names are “White” and “Black”.

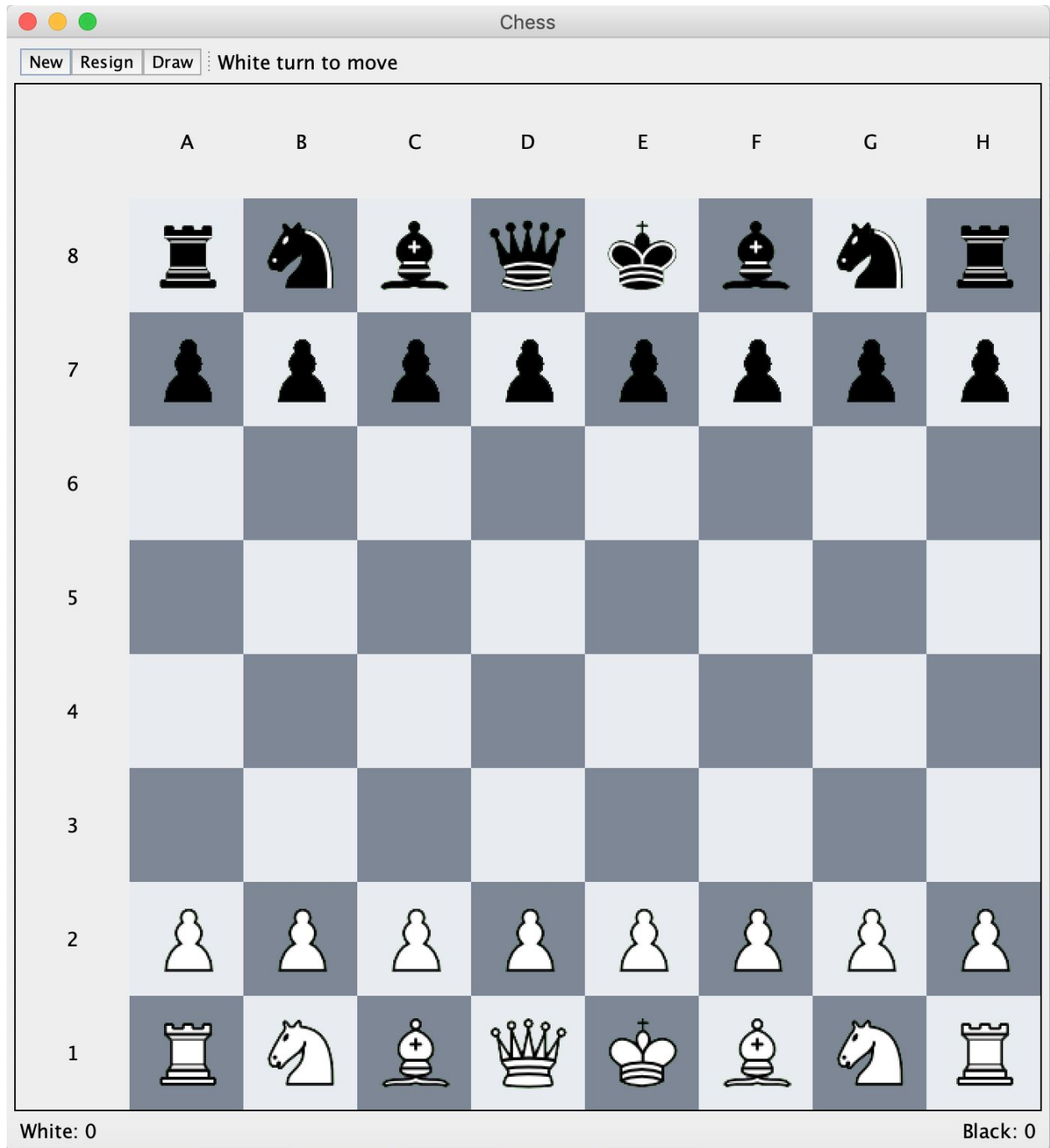


Start a new game

Clicking the “New” button anytime starts a new game.

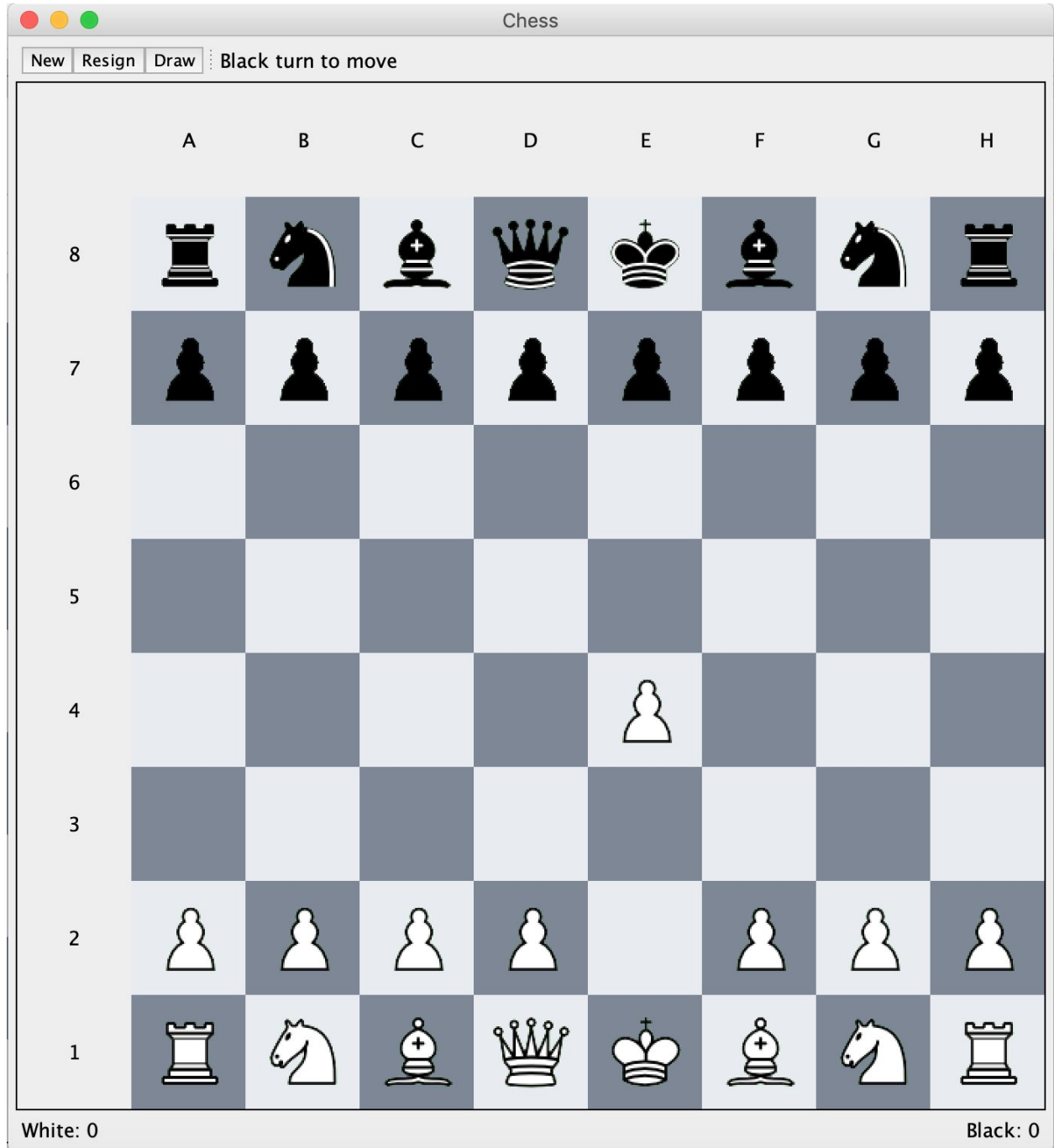
If there was a game going on, the old game is discarded and the scores do not change.

When a new game starts, the pieces are placed at initial positions on the chess board, and the text message reads “White turn to move”.



Make a valid move

A move is made by clicking the piece to move and then clicking the destination square. If the move is valid, the piece will move to the destination square and the turn will be passed to the other player as indicated by the text message.



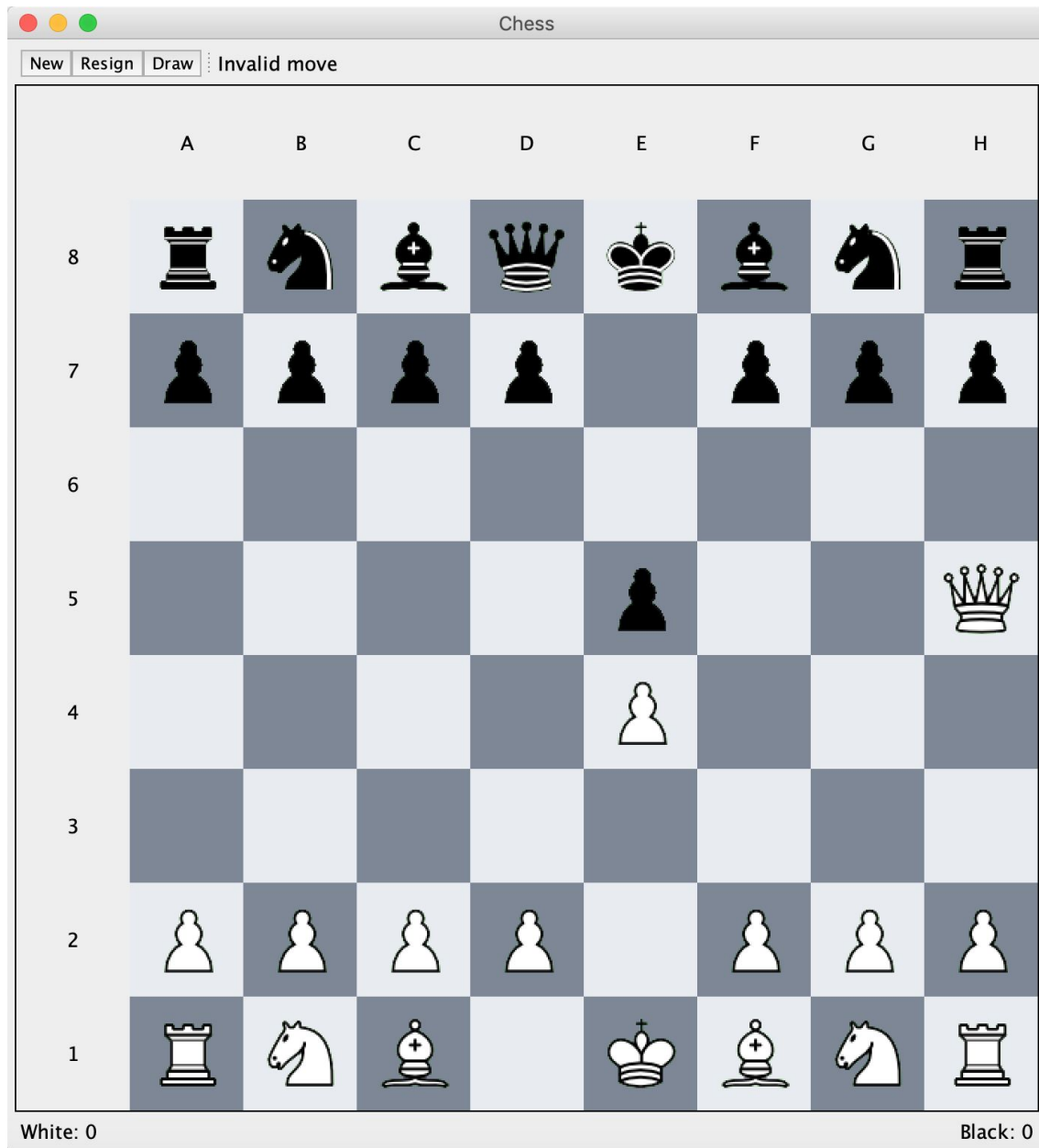
Make an invalid move

A move is invalid if:

1. It is not the player's turn to move.
2. The player tries to move a piece of the other player.
3. The move is illegal according to the rules of chess.

When a player makes an invalid move, the text message reads "Invalid move" and the player should make a move again.

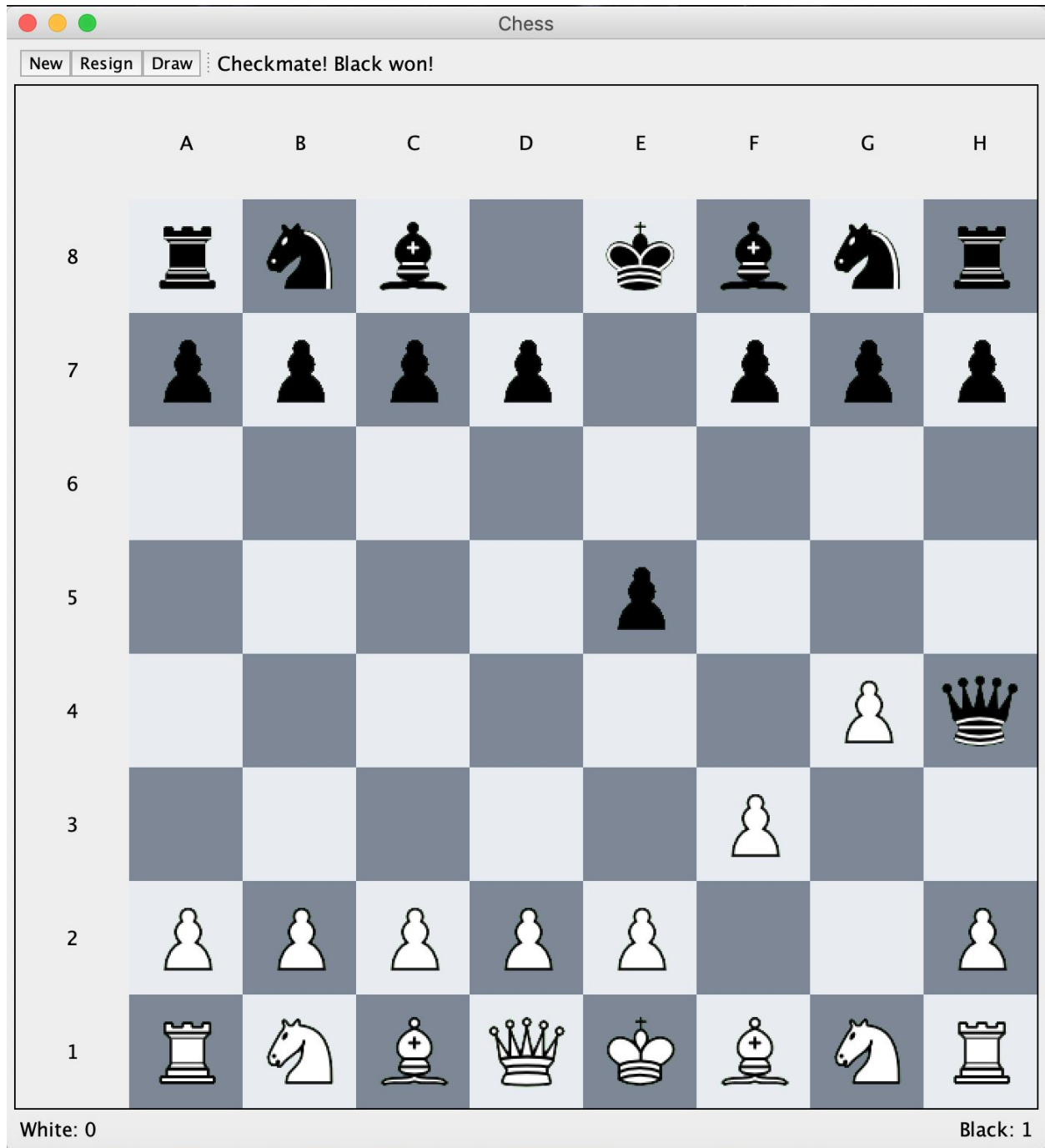
Shown below is the situation where Black attempts to move a pawn from f7 to f6, which is illegal because the move will put Black King in check.



Checkmate

A player wins a game when the opponent King is checkmated.

The text message tells who won the game and the winner's score is increased by 1.

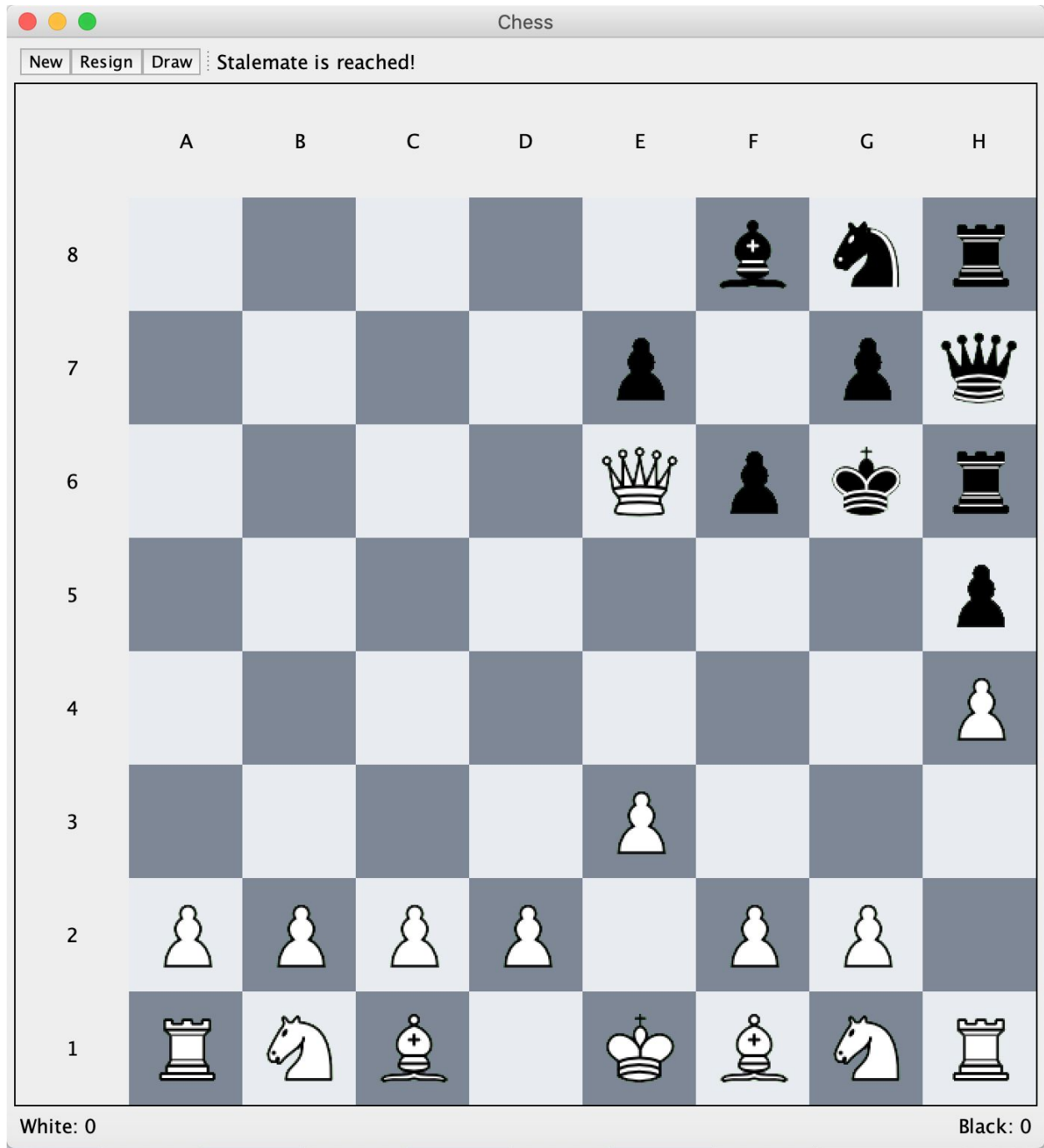


Stalemate

The game ends when a stalemate is reached.

A stalemate is a draw so the player's scores do not change.

The text message reads "Stalemate is reached!".



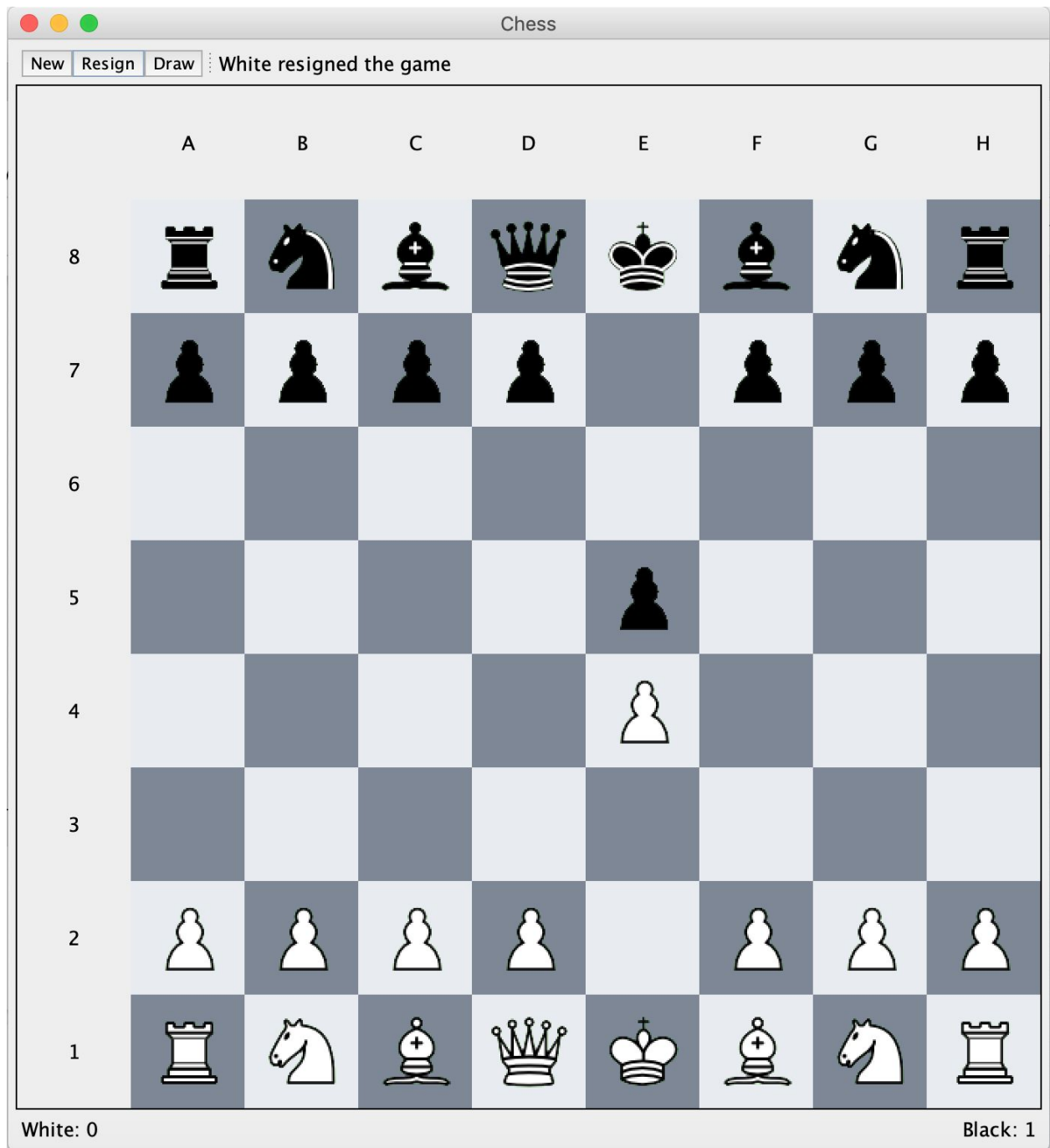
Resign a game

A player may resign during the player's own turn.

The game ends immediately and the other player wins the game.

The winner's score is increased by 1.

The text message tells who resigned the game.



Offer a draw

A player may offer a draw during the player's own turn.

A popup window will appear asking whether the other player agrees to draw and the text message tells who is offering a draw.

If the other player agrees to draw, the game is a draw and the text message reads "Draw by agreement".

Otherwise, the offer is declined and the game proceeds. The text message indicates who declined the offer.



