Overview

The basic goal of Sprint 2 is to flesh out the basic project architecture, including module integrations, to produce a basic, playable chess game. This includes all pieces being implemented with their basic move sets, board and player initialization, movement and capture implementation, and tests for check and checkmate.

Artifacts

- The project is intended to run through a JavaScript user interface within any modern web browser.
- The user must be able to launch the program and see and interact with the game board and pieces.
- When the program is launched, it should initialize the chess board with the correct pieces in the correct positions and display the initial board to the players.
- The program should allow the gameplay to alternate between the two players, allowing each player to move their own pieces, and only their pieces, on their turn.
- On their turn, the program should allow the current player to select one of their pieces.
- When a piece is selected, the program should display all valid moves that that piece can make given the current board state.
- Each piece should determine its valid moves based on its current location and the rules created for that piece type.
- The valid moves determination should include the restriction that no move can result in the moving player being in check. If the player is in check before their move, the only valid moves are those moves that take the player out of check. If the player is not in check, the only valid moves are those that do not put the player into check.
- When a piece is selected, the player should be able to unselect the currently selected piece, to allow them to select a different piece.
- While a piece is selected, the player should be able to select one of the valid moves, which triggers the currently selected piece to move to the targeted position.
- When a piece is moved, the program should handle the effects of that move, such as capturing an opponent's piece, and determining if the opponent has been placed in check or checkmate.
- Once a piece is moved, the game should switch to the other player and allow them to conduct their turn.
- When a player is determined to be in checkmate, the program should end the game and indicate which player is the winner.