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Main Proposal: Chess game with piece animation for moving and captures.

How: Current plan is to create a Java swing program that contains a chess program where a piece, determined by a hierarchy of chess pieces, to white and black pieces, to each individual piece type (so for example Piece->WhitePiece->WhiteKing).

These pieces are stored in a 2D array which correspond to each of the squares, for example [0][0] to the a1 square. Pieces when moved by clicking on a valid square, will perform an animation while moving, with potentially a special animation occurring if an enemy piece is captured, animation for castling, animation for pawn promotion, and animation for check/checkmate.

For the unique part that we have not learned yet, we currently plan on creating our own chess “engine” that has a position evaluation (tracks material, space, threat) and some search tree functionality. We are a little unsure how to do this, but we could potentially use separate threads to speed up the search tree to a somewhat reasonable depth of 4-6 moves.

Finally adding a sidebar that stores the moves that have been played, storing these in a stack, such that an undo button can be used.

Breakdown -
4/8 - finish all chessboard functionality, that has all game rules applied
4/15 - animations finished, have sidebar finished and basic engine started
4/21 - undo button, finish engine competent enough to beat beginner.

130 points for chess board
30 points for animations
20 points for sidebar
50 points for engine
20 points for undo