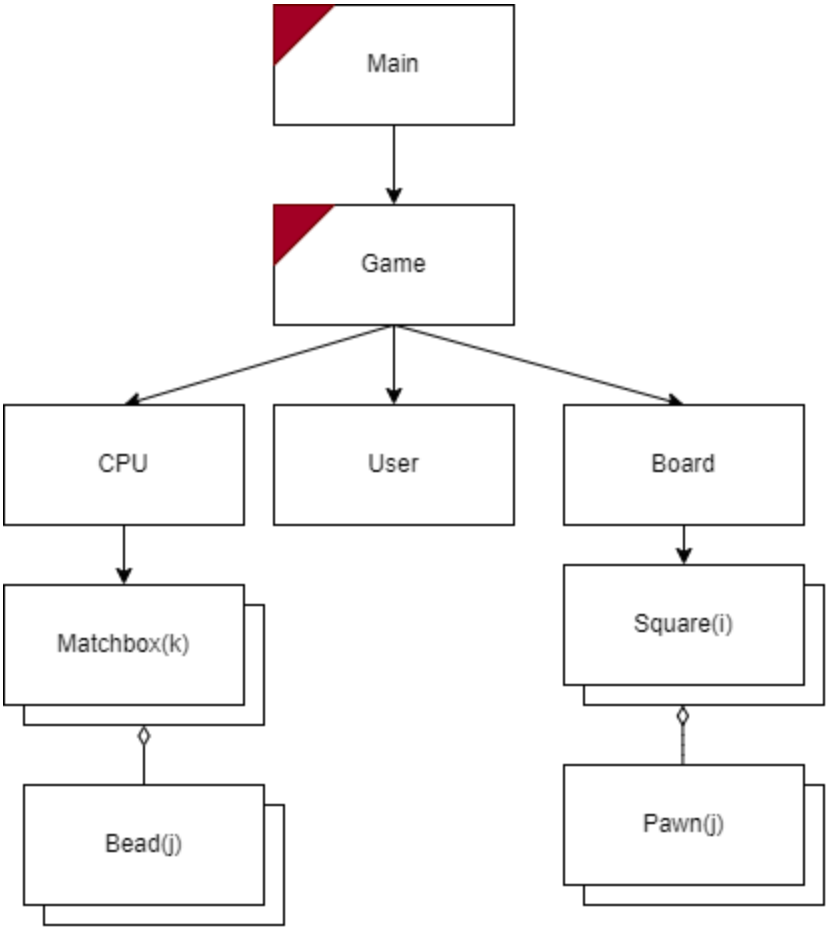
Nathan J. Rowe
Project 2: H.E.R

Object Diagram:



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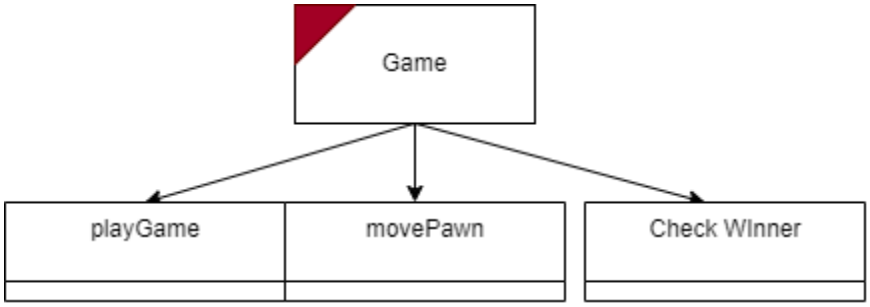
Object: Game



Description:

Game will be the first Object called by Main after a mode is selected. This displays the game board and allows Hexapawn to be played.

- playGame(): Allows an instance of a User or Robot to play their turn.
- movePawn(): Moves a pawn from one square to another after a User or Robot action. If the user is a Robot, then it make a move based on a selected Bead.
- checkWinner(): Determines if a winner has been decided. If so, resets the game and removes last bead from the robot.

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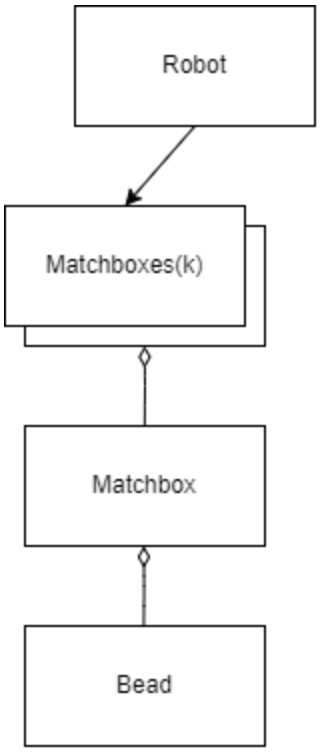
Object: CPU



Description:

Robots are given an array of Matchboxes, which are given a number of beads based on their corresponding board state.

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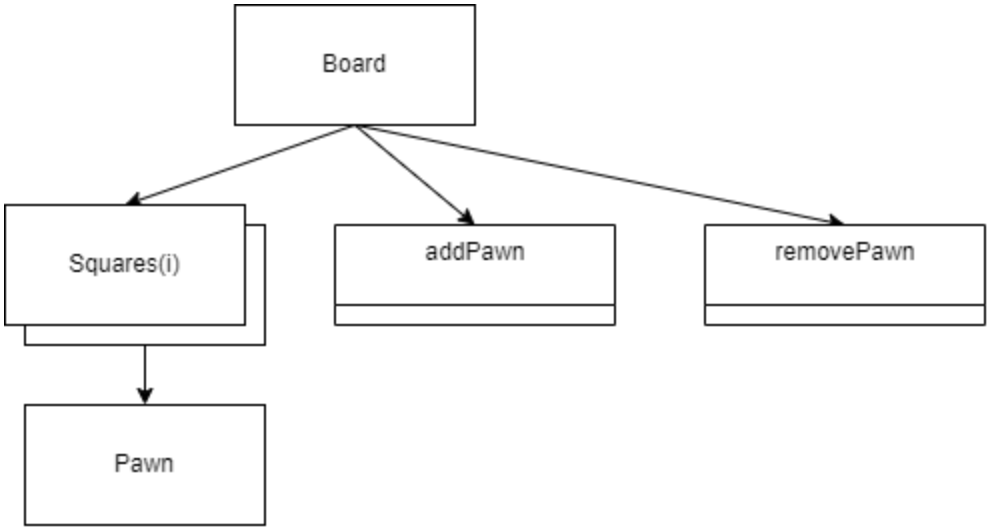
Object: Board



Description: A board will be a collection of squares, each square being a location on the board.

- addPawn(): Adds a pawn to a given square on the board.
- removePawn(): Removes a pawn from a given square on the board

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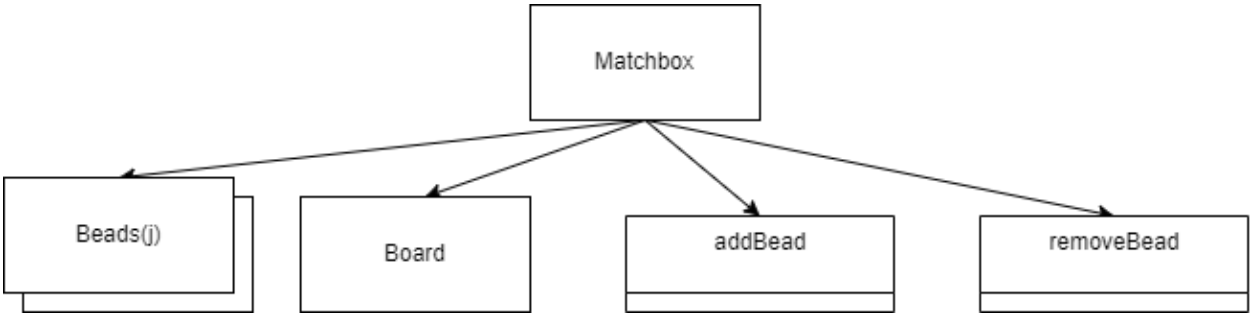
Object: Matchbox



Description:

A matchbox will take an instance of a pre-defined board and add beads for each available move on that board. There should also be a function for removing a bead from the matchbox

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Object: Square

Description:

A Square object will have values for it's x and y position relative to a board and needs getters to retrieve the Pawn currently occupying that square.

Object: Pawn

Description:

A pawn will be represented by a circle with values for it's x position and y position. Pawn type will be determined by color.

Object: Bead

Description:

A Bead will contain two squares (one being the origin square and the other being the possible move). Getters are needed to retrieve these squares. Beads will be represented by a unique color.