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BREES - M20

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Final Project Summary

For our final project, we decided we were going to make checkers work within MATLAB. Edward took over the more technical side of the project, inputting the appropriate code and ensuring that almost all bugs were fixed, and Gisselle took over the more creative side, bringing up ideas that could be implemented using code and making sure every vital part of checkers was adequately taken care of with code.

Overall, we were able to make most of the game of checkers to work. We allowed for there to be user input for the game pieces by using popups that would ask what row and column the piece was in and what direction they wanted it to move in. It would also detail which player’s turn it was. We also created, in a figure, the basic layout of a checkerboard, but the pieces were the squares making up the board instead of the circle pieces. We were able to do this by making an 8 by 8 matrix and making each set of pieces and their corresponding kings a certain number (1 being the north side pieces, 2 being the south side pieces, 3 being the north side kings, and 4 being the south side kings). Depending on the player and piece being played, the piece could move in a northwest, northeast, southeast, or southwest direction from where they were on the board. We made sure to include code that would not allow non-kings to move backward from their original position and also ensured that no pieces would be able to be valid if a player tried to move them off the board.

We only had two main bugs with our code that stopped us from completing the game entirely. One bug was that if any player jumped over their enemy’s game piece, their turn would end, even if there were multiple jumps to be made. Another bug was that if a player chose a piece that was blocked from moving in an appropriate direction, the game would not be able to continue. Another struggle we were not able to get to was ensuring that no pieces would change color depending if there were certain kings on the board. Other than those setbacks, we were able to create a semi-functioning checkers game within the time limit given.