Team git_it_dun APCS1 pd 2

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Final Project Proposal

Checkers Board Game

Our project will represent a checkers board game against the computer. The rules would follow the standard checkers rules: movement, jumping, forced capture, crowning, and victory. The board will be an 8x8 matrix with b and r representing the 24 black and red checker pieces. Player will be assigned to red and starts first. To make a move, there is a check for forced captures before the player chooses the location of their checker piece. Then, the program will ask the player where they want to move their checker piece. The player can either enter forward right (“fr”) or forward left (“fl”). Our program will read the user’s input and check if they are valid. If the move is valid, then the program will execute the move by swapping the empty space with the checkerpiece. A resulting checkerboard will be printed every time a valid move is made. Forced jump takes higher priority than regular forward movement, meaning that the user must make a capture if there is a black checker piece one space diagonally forward on either side of the intended piece. Multiple jumps will be executed if there are still possibilities of captures. When Player ends their turn, the computer controlled checkers start. For the black checkers, a random, valid move should be executed. For both sides, if a checker piece reaches the last row on the opponent’s side, then it becomes a king. A king can move one space diagonally backward (“bl” and “br”) or forward (“fr” and “fl”). Red and black will continue taking turns until there is a victory, which marks the end. That can occur in two ways: either of the sides do not have any valid moves or a side does not have any checkers left.