Final Project Proposal

       Our final project will be a recreation of the game 2048. It will be played on a four by four matrix. The game starts by randomly adding two squares that will be represented as the strings "0002" or "0004". The leading zeroes are to keep the length of each line of the grid constant so it displays nicely. Then the game will wait for a user input of "u", "d", "l", "r", which stands for up, down, left, and right, respectively. If an invalid input is given, it will just prompt the user to try again. After an input is given, it will move every block in the direction of the input if there is a blank spot, or if there is a block with the same value, in which case the blocks will merge, and the value of the merged block will be doubled ("0004" -> "0008"). Each block can only merge once per move. After each turn, after all the blocks have moved to their final position, a new block of either "0002" or "0004" will be added to the matrix on an empty spot. You lose the game if there are no moves you can make that will change the state of the matrix. You win if you reach a block with the value "2048".