

CPSC 233

T08 G02

Brittany Pysar, Boxiao Li, Ryan Fowler, Alex Stevenson and Daniel Ricasta Group Project Proposal

We will be creating a modified version of the popular board game Monopoly for our group project this semester. Our application will have a modified game board with 16 total properties available to purchase, divided into 6 sets – Yellow, Blue, Red, Orange, Green and Rail Road.

The rules of our application will be similar to the standard rules of monopoly, limited to 4 players where each player rolls a die and moves clockwise around the board according to the number on the die. There are a variety of spaces a player can land on; vacant properties that they can choose to purchase, purchased properties for which they will pay rent to the owner, a “go to jail” space that sends the player to the “jail” space until they can roll either a 6 or a 3, and chance spaces, where the player will either pay a random amount of money to, or receive a random amount of money from the bank.

There are three ways in which our version of monopoly can end; first, the player can choose the “End Game” button to end the game prematurely, second, when a player runs out of money and property they will be eliminated, when only one player remains that player will be declared the winner, and third, when all spaces on the board have been purchased and there is no property left unowned, the game will come to an end. In both the first and third cases where there are multiple players still left in the game when it comes to an end the winner will be determined by whomever has the highest net worth. Net worth is calculated by adding the players cash value to the purchase price of any properties they own.

Each player will start with \$1500, which will decrease by purchasing property, by paying rent when landing on an opponent’s properties, and by paying money to the bank when landing on a chance, income tax or free parking space. Players can earn money by selling a property to the bank (usually to avoid bankruptcy), by collecting rent from their properties, by passing the “Go” space on the game board, and by landing on community fund and chance spaces. When players sell property back to the bank, the sale price is half of the purchase price.

We will include a dialogue box/section to the GUI to indicate whose turn it is and details about each player on their turn, such as the amount of money they have, the value of their properties and the number of properties they own. This is also where the player will be prompted to the roll a die on their turn, buy property when they land on a vacant space and sell properties they already own.

Anytime during gameplay, the user can press the save button to save the current state of the game. Upon closing the game, player stats will be displayed as usual and when the game is launched again the player will have the option to start a new game or load the previously saved

game. Only one game state can be saved at a time and pressing the save button will rewrite any previously saved games.