D Level Custom Program Initial Plan

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Design Overview for Monopoly

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Summary of Program

This is a basic, extra simple of the game Monopoly. Splashkit will handle the animation for most of the time as I have not decide if I want to include user input in splashkit window yet. For the rest of how the player interact with the game, it is through a terminal

Starting up the program, a board is created using a script with 16 squares. Then the program ask for the players (2-3 players) info. After that, first player and so on after the one in front finished will have a list of commands containing actions that they can perform like if they land on a property then do they want to buy it or skip and so on with differents kinds of square having different effect. If no one forfeit then player that can't afford to pay rent lose and the game is "the one standing" game.

Required Roles

Responsibility	Type Details	Notes
Game	This is where the program calculate money, printing feedback, executing command, checking if anyone lose or win,….	
Square	The position of squares which other class will use	
Property	This class enable the program to manipulate the property on some element but mostly it is for reading the property info which will be pre-manufactured	
Board	This is where all the info of each square is stored and communicate with Boarddrawing at first to draw out the board	
PropertyState	This class as a file will contain multiple class in it, with propertyState as in code in the abstract class that allow other class in the file to inherit it. Main purpose of this class is so that property can be marked Bought, Rent,…. If a player land on it and have to do something with the square	

Card (not sure if I want to code this yet)	This class manage special "ability" that a player has (can be stack each turn) like make a player give u money, move this player up how many square,etc	
Player	Managing the player info, roll dice, playerState (maybe in the program because it is affected by Card class), and finally how many the player moves up depending on the dice rolled	

Class Diagram