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| --- | --- | --- | --- |
| **Item** | **Possible Points** | **Comments** | **Score** |
| Issues identified | 5 |  |  |
| Requirements fixed | 6 |  |  |
| Style, grammar, spelling | 2 |  |  |
| Group work: time logging, meetings | 2 |  |  |
| |  |  |  | | --- | --- | --- | | **Meeting** | **Date** | **Present & Contributing** | | Initial discussion |  |  | | Final Review | 2/26/12 | Aaron Decker, Jordan Trulen | | | | |
| Total | 15 |  | 0 |
| |  |  |  | | --- | --- | --- | | **Issue** | **Requirements with Issue** | **Discussion** | | Understandable | G-3 | Grammar fix | | Nonprescriptive | G-7, G-8, G-9 |  | | Correct | R-1, R-2 | Pointless req's | | Complete | G-1 |  | | Concise | G-7, G-8, G-9 |  | | Precise |  |  | | Clear | G-14 |  | | Unambiguous | IO-5, IO-6, IO-7, IO-8 |  | | Consistent |  |  | | Traceable |  |  | | Modifiable | G-7 |  | | Testable | G-1 |  | | Feasible | G-1 |  | | | | |

# Requirements Document

## Definitions

* Board: Analogous to the board in a Monopoly game. Consists of 40 spaces.
* Space: One of 40 sections surrounding the board that can consist of either a Property or an ActionSpace.
* Property: A space one player can have ownership of by purchasing that property's deed. For players who do not own the property, a rent is paid to the owner each time any of these players lands on a Property. There are 28 properties on the board (22 streets, 4 railway stations, and 2 utilities).
  + a. StreetProperty: A property that the player can improve by adding Houses and/or Hotels.
  + b. RailwayProperty: A property whose rent is calculated based on the total number of railway properties owned.
  + c. UtilityProperty: A property whose rent is calculated by a combination of owned utilities and a roll of the dice.
* Rent: A sum of game money payed from one player who lands on a property to another player who owns the deed to that property.
* Deed: An object that signifies ownership of a property. It specifies the rent associated with a property.
* Bank: A game entity that contains unlimited amounts of game money. No player controls it.
* ActionSpace: A space that permits or forces the player to perform an action
  + a. "Chance" ActionSpace: An ActionSpace where a card from a pool of cards is randomly selected. These cards shall contain an action that is executed by the system. (Three total)
  + b. "CommunityChest" ActionSpace: (Three total)
  + c. "LuxuryTax" ActionSpace: (one total)
  + d. "IncomeTax" ActionSpace: (one total)
  + e. "GO" ActionSpace: The ActionSpace that the players start on. See G-14. (one total)
  + f. "Free Parking" ActionSpace: The ActionSpace that gives players the money reserved for Free Parking. See G-15. (one total)
  + g. "Jail/Just Visiting" ActionSpace: The ActionSpace that is reserved for holding a player in place until release requirements are met. See G-16. (one total)
  + h. "Go to Jail" ActionSpace: Sends the player to jail. See G-17. (one total)

## Input Output Requirements

All user interface requirements start with "IO".

* IO-1: The program shall present the user with a graphical representation of a Monopoly board.
* IO-2: The program shall display the positions of the players graphically on the board.
* IO-3: When a player lands on a ActionSpace, the program shall present the user with information relevant to the ActionSpace.
* IO-4: The program shall have a method for manipulating key game parameters before a game is started.

## Game Play Requirements

All game play requirements start with "G".

* G-1. Each player shall receive a set amount of money at the start of the game.
* G-2. Each player shall receive a set amount of money each time that they land on the "Go" ActionSpace.
* G-3. Each player shall roll two 6-sided dice to move their playing piece around the board when it is their turn. The dice shall be a pseudo-random component of the game.
* G-4. Each player shall only roll for movement once per turn.
* G-5. Each player shall have the option of purchasing property when landed on, unless it is already owned.
* G-6. Each player shall pay the owner of the property they land on the rental prices specified for the property landed on.
* G-7. Each player shall have the ability to improve, for a set sum of money, their property if a player owns all Properties in a set. Improving a property shall increase the value of the rent, and there shall be multiple levels of improvement available.
* G-10. Each player shall purchase improvements for their property evenly.
* G-11. Each player shall only be able to purchase one improvement level at a time per property group.
* G-12. When a player lands on a property, the system shall automatically charge the rent specified on the deed of the property to the player's account and give it to the owner of the deed.
  + a. In the event that a player lands on a property that the player holds the deed for, no rent shall be assessed.
  + b. In the event that no player holds the deed to the property, no rent shall be assessed.
* G-13. The deed for each property shall specify a price that must be paid to the bank by the player for the player to own a deed.
* G-14. Once the game has begun, the bank shall pay to a player a fixed sum of money every time that a player crosses the "GO" ActionSpace.
* G-15. The "Free Parking" ActionSpace:
  + a. shall hold a sum of money. This money may be represented graphically by being in the center of the board.
  + b. shall pay the sum of money to the first player to land on the "Free Parking" ActionSpace.
  + c. shall have the sum of money be user-configurable.
  + d. shall give the user an option to make the sum of money be paid to a player each time that player lands on "Free Parking". In this scenario, the "Free Parking" space would have an unlimited supply of game money.
* G-16. The "Jail/Just Visiting" ActionSpace:
  + a. shall do nothing when a player lands on it. In this situation the player would be considered "Just Visiting".
  + b. shall hold a player if the player is in jail.
  + c. shall only release a player if:
    - i. The player pays the fine to the bank.
    - ii. The player rolls doubles.
    - iii. After a set number of unsuccessful rolls, the player must pay a set amount of game money to the bank and be released.
    - iv. The player uses a "Get Out of Jail Free" Chance or CommunityChest card.
* G-17. A player may be sent to jail if:
  + a. the player lands on the "Go to Jail" ActionSpace. The player shall not collect the game money usually associated with passing the "GO" ActionSpace.
  + b. a "Chance" or "CommunityChest" card instructs the user to go to jail.

## Other Requirements

None.