CSE 3063 OBJECT ORİENTED PROJECT # 1

Monopoly Game

Requirement Specification Vision: We plan to make a monopoly game system which will run as a simulation. This is a software version of the game. The user will start the game and specify the number of players, their names and iteration number on simulation. Then the user will watch the game until it is completed. During this time, the game will show actions of simulated players. In the second iteration, we plan to implement different types of squares such as go square, jail square and various types of squares with their actions.

Problem Statement: In this project, monopoly game implementation will be developed. This game is a simulation where players roll two six-sided dice to move around the game-board. This will be just a simulation; therefore it does not involve whole game requirements such as we do not need to handle with house rules, etc. In second iteration, we handle with Bank, players can earn money when come again to Go square. There is Free parking square with no action. Go to Jail square is used in order to send player to Jail. Jail square consists of two actions: in jail and just visiting. If a player comes Jail for jus visiting, the player rolls dice and go on its movement. If a player comes Jail as "in jail", the player should pay 50$ to get out of the jail. When a player comes to land on the Income Tax square, he or she must pay 10% of their total cash. In Luxury Tax, the player who land on it must pay $75 to the Bank. A game iteration will complete when all players takes their turns, and player's name, cash, current square, dice face values, following square, and actions associated with the landed square will be shown.

Scope: Monopoly application. The game plays by the similar rules as the standard board game. Also, it will provide a person to begin the game by indicating number of players, their names and iteration number for game.

System Constraints:

¬ Provide only text trace mode

¬ No use of graphical user interface

¬ No use house rules

¬ Money cannot be gained or lost through Chance and Community Chest cards

¬ At the beginning, every player starts on this square with $200.

¬Player earn $200 only and only if land directly on Go square!

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¬Go To Jail, send player to Jail square

¬A player come jail square when landed on Go To Jail or rolling doubles of dices three times successively

¬To get out from Jail, player must pay $50

¬In Income Tax square, player must pay 10% of all of the player's cash

¬In Luxury Tax square, player must pay $75

¬ Two or eight number of players can play

¬ Forty squares on the board

¬ Players turn around squares on the board the board as clockwise

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Glossary of Terms (Alphabetic listed):

Board: A place which the game is played on.

Dice: A pair of six-sided dice.

Observer: A person starts the game and specifies the number of simulated players. Player: A person who is simulated to play the game.

Square: Part of the board provides the players land on.

Use cases:

¬ Observer run the program

¬ Observer specify the number of the players

¬ The game is run as computer simulation

¬ During simulation players roll the dice

¬ Program print the face values and sum of them

¬ Players move forward on squares as sum of the values of faces

¬ Program print the location of player

¬ When each player move forty squares, iteration will be completed

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